EAST WATERWAY OPERATIONAL UNIT SUPPLEMENTAL REMEDIAL INVESTIGATION/ FEASIBILITY STUDY
DATA REPORT: SUBSURFACE SEDIMENT SAMPLING FOR CHEMICAL ANALYSES

FINAL

For submittal to:

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Acronyms

Acronym	Definition
AES	atomic emission spectrometry
AET	apparent effects threshold
ARI	Analytical Resources, Inc.
ASTM	American Society for Testing and Materials
BEHP	bis(2-ethylhexyl) phthalate
BHC	benzene hexachloride
CAS	Columbia Analytical Services, Inc.
CCV	continuing calibration verification
CSL	cleanup screening level
CVAA	cold vapor atomic absorption
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DMMP	Dredged Material Management Program
DDT	dichlorodiphenyltrichloroethane
dw	dry weight
ECD	electron capture detection
EPA	US Environmental Protection Agency
EW	East Waterway
FPD	flame photometric detection
FS	feasibility study
GC	gas chromatography
GPS	global positioning system
HPAH	high-molecular-weight polycyclic aromatic hydrocarbon
HRGC	high-resolution gas chromatography
HRMS	high-resolution mass spectrometry
ICP	inductively coupled plasma
ID	identification
J-qualifier	estimated concentration
LAET	lowest apparent effects threshold
2LAET	second lowest apparent effects threshold
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LDW	Lower Duwamish Waterway
LPAH	low-molecular-weight polycyclic aromatic hydrocarbon
ML	maximum level
MLLW	mean lower low water

Acronym	Definition
MS	mass spectrometry
MS/MSD	matrix spike/matrix spike duplicate
NAD83	North American Datum of 1983
OC	organic carbon
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
pcf	pounds per cubic foot
PID	photoionization detector
PSEP	Puget Sound Estuary Program
PST	Pacific Standard Time
QAPP	quality assurance project plan
RL	reporting limit
RPD	relative percent difference
SDG	sample delivery group
SIM	selected ion monitoring
SL	screening level
SMS	Washington State Sediment Management Standards
SPT	standard penetration test
SQS	sediment quality standards
SRI	supplemental remedial investigation
SRM	standard reference material
SU	standard unit
SVOC	semivolatile organic compound
TOC	total organic carbon
VOC	volatile organic compound
U-qualifier	not detected at given concentration
Windward	Windward Environmental LLC

1 Introduction

This data report presents the results of chemical analyses conducted on subsurface sediment samples collected from the East Waterway (EW) as part of the supplemental remedial investigation and feasibility study (SRI/FS). The subsurface sediment quality assurance project plan (QAPP) (Windward 2010) presented the design for the sampling and analysis of subsurface sediment, including details on project organization, field data collection, laboratory analyses, and data management.

Subsurface sediment cores were collected at 65 locations in the EW during the subsurface sediment sampling event in February and March of 2010. In addition as part of a geotechnical investigation of the mound area[1] near Slip 27, two subsurface sediment borings were sampled for sediment chemistry and geotechnical analyses as described in Appendix E of the QAPP (Windward 2010). Sediment core locations are shown on Map 2-1. Cores from each location were evaluated for stratigraphy and lithology and then divided into 0.5-, 1-, or 2-ft depth intervals according to the QAPP (Windward 2010). Chemical analyses were conducted on a total of 194 subsurface sediment samples. Geotechnical analyses were conducted on a subset of these samples. Geotechnical data will be used in the FS to evaluate sediment bed properties and remedial alternatives.

The remainder of this report is organized into the following sections:

- Section 2 – Subsurface Sediment Collection Methods
- Section 3 – Laboratory Methods
- Section 4 – Results
- Section 5 – References

The text of this report is supported by the following appendices:

- Appendix A – Data Tables
- Appendix B – Sediment Core Logs
- Appendix C – Data Management
- Appendix D – Data Validation Reports
- Appendix E – Analytical Laboratory Data
- Appendix F – Field Forms
- Appendix G – Chain-of-Custody Forms
- Appendix H – Photographs of Sediment Cores
- Appendix I Geotechnical Results for Sediment Borings

[1] The mound area is a shallow area on the southern side of Slip 27.

2 Subsurface Sediment Core Collection Methods

This section describes the methods used for the collection of subsurface sediment samples, including the sample identification (ID) scheme, sampling locations, sediment core collection and processing methods, and field deviations from the QAPP (Windward 2010). Copies of field notebooks and forms completed during the subsurface sediment core sampling effort (i.e., sediment core collection logs and sediment core processing logs) are presented in Appendix F. Copies of completed chain-of-custody forms used to track sample custody are presented in Appendix G.

2.1 Sample Identification Scheme

Each subsurface sediment core sampling location was assigned a unique alphanumeric location ID number. The first four characters of the location ID were "EW" to identify the EW project area, followed by "10" to identify the year in which the sample was collected (i.e., EW10). The next four characters were "SC" for sediment core or "SB" for sediment boring to indicate the type of samples collected, followed by a consecutive number identifying the specific location within the EW (e.g., SC01).

The sample ID consisted of the location ID followed by a numerical suffix that indicated the depth horizon from which the sediment sample came. For example, the sample from the upper 2-ft (60-cm) section of the core collected at location EW10-SC01 was identified as EW10-SC01-0-2; the 2-to-4-ft (60-to-120-cm) section of sediment from the same core was identified as EW10-SC01-2-4. Samples collected at 0.5-ft intervals were similarly identified. For example, the sample collected from the upper 0.5-ft section of the core collected at location EW10-SC01 was identified as EW10-SC01-0-0.5. Field duplicate samples were identified using location numbers starting with 201. For example, the upper 2-ft section of the first field duplicate sample was identified as EW10-SC201-0-2. A rinsate blank sample was assigned the first four characters of the location ID, followed by "SC" and "RB" (i.e., EW10-SC-RB).

2.2 Sampling Locations

Subsurface sediment cores were collected from 65 sampling locations between February 22 and March 9, 2010, as presented in Table 2-1 and on Map 2-1. Table 2-1 also presents the mudline elevation at which each core was collected relative to mean lower low water (MLLW), the depth below mudline to which the core penetrated, and the volume of sediment recovered in the core sample. The target sampling locations from the QAPP (Windward 2010), as well as the actual sampling locations, are shown on Map 2-2. In general, the actual sampling locations differed slightly from the target sampling locations because of difficulties associated with positioning the sample vessel as a result of weather conditions (specifically wind and currents) and, to a small extent, the accuracy of the global positioning system (GPS) unit (depending on signal strength).

Table 2-1. EW subsurface sediment sampling locations

Location ID	Collection Date	Collection Time (PST)	Collection Method	Processing Date	Target Location[a]		Actual Location[a]		Distance from Target (m)	Mudline Elevation (above [+] or below [-] MLLW [ft])	Penetration Depth (ft)	Recovery (%)
					X	Y	X	Y				
EW10-SB-01A[b]	3/17/10	0715	sediment boring	3/19/10 3/22/10 3/23/10	1267829.5	214926.5	1267834	214908	5.8	11.2	3.5	na
EW10-SB-01B[b]	3/17/10	1145	sediment boring	3/19/10 3/22/10 3/23/10	1267829.5	214926.5	1267830	214912	4.4	9.8	60.5	na
EW10-SB-02A[b]	3/16/10	0945	sediment boring	3/22/10 3/23/10	1267745	215001	1267735	215007	3.6	24.7	20	na
EW10-SB-02B[b]	3/18/10	1000	sediment boring	3/22/10 3/23/10	1267745	215001	1267716	215024	11.3	26.1	61.5	na
EW10-SC03	2/22/2010	1348	MudMole™	2/23/2010	1267044	212025	1267032	212018	4.3	-6.25	7.65	75
EW10-SC04	2/22/2010	1447	MudMole™	2/23/2010	1267343	212070	1267325	212072	5.4	0.93	12.45	59
EW10-SC05[c]	2/23/2010	1155	MudMole™	2/23/2010	1267231	212246	1267235	212245	1.3	-11.14	7.35	82
EW10-SC06	2/22/2010	1147	MudMole™	2/22/2010	1267396	212537	1267401	212536	1.6	-29.36	14.35	81
EW10-SC07B[d]	2/26/2010	1215	vibracorer	3/1/2010	1267191	212587	1267211	212605	8.2	-18.37	13.5	96.3
EW10-SC08	2/22/2010	1002	MudMole™	2/22/2010	1267533	212850	1267533	212848	0.7	-36.13	14.35	88
EW10-SC09	3/8/2010	1135	vibracorer	3/9/2010	1267756	212976	1267763	212916	18.3	-40.36	14	96
EW10-SC10	2/26/2010	0855	vibracorer	3/1/2010	1267114	213011	1267112	213011	0.6	-37.18	14	93.6
EW10-SC11[c]	2/23/2010	1015	MudMole™	2/23/2010	1267404	213062	1267401	213056	2.0	-36.89	13.85	74
EW10-SC12	2/26/2010	0945	vibracorer	3/1/2010	1267225	213429	1267226	213425	1.3	-39.05	14	90
EW10-SC13	3/3/2010	1003	vibracorer	3/4/2010	1267786	213481	1267785	213479	0.7	-48.92	14	84
EW10-SC14[c]	3/8/2010	0945	vibracorer	3/9/2010	1267761	213730	1267763	213722	2.4	-49.18	14	95.8
EW10-SC15	2/26/2010	1200	vibracorer	3/1/2010	1267156	213760	1267152	213757	1.5	-42.19	14	> 100
EW10-SC16	3/8/2010	0945	vibracorer	3/8/2010	1267593	213782	1267589	213785	1.5	-43.95	13.2	76
EW10-SC17	3/8/2010	1030	vibracorer	3/9/2010	1267365	213811	1267364	213815	1.3	-44.42	14	97
EW10-SC18	2/26/2010	0850	vibracorer	3/1/2010	1267121	214044	1267122	214044	0.2	-42.93	14	97.1
EW10-SC19	2/24/2010	1030	vibracorer	2/25/2010	1267759	214130	1267764	214129	1.4	-50.19	14	97.1
EW10-SC20[c]	2/24/2010	1250	vibracorer	2/26/2010	1267678	214189	1267684	214192	1.9	-53.10	14	91.4
EW10-SC21	2/24/2010	1428	vibracorer	2/25/2010	1267769	214348	1267768	214352	1.2	-50.63	14	95.7

Table 2-1. EW subsurface sediment sampling locations (cont.)

Location ID	Collection Date	Collection Time (PST)	Collection Method	Processing Date	Target Location[a]		Actual Location[a]		Distance from Target (m)	Mudline Elevation (above [+] or below [-] MLLW [ft])	Penetration Depth (ft)	Recovery (%)
					X	Y	X	Y				
EW10-SC22[c]	3/5/2010	1539	vibracorer	3/8/2010	1267333	214426	1267337	214429	1.6	-53.23	14	97
EW10-SC23	3/2/2010	1516	vibracorer	3/3/2010	1268428	214536	1268429	214533	0.8	-15.21	14	96
EW10-SC24	3/5/2010	1015	vibracorer	3/8/2010	1267778	214561	1267772	214564	2.1	-47.43	14	96
EW10-SC25	3/5/2010	0840	vibracorer	3/8/2010	1267556	214621	1267554	214617	1.3	-52.22	14	93
EW10-SC26	3/3/2010	0900	vibracorer	3/4/2010	1267148	214666	1267152	214665	1.2	-51.45	14	94
EW10-SC27	3/2/2010	0936	vibracorer	3/3/2010	1268221	214738	1268225	214738	1.3	-27.64	14	94
EW10-SC28	3/5/2010	1052	vibracorer	3/8/2010	1267507	214901	1267504	214898	1.1	-53.06	14	85
EW10-SC29	3/2/2010	0935	vibracorer	3/3/2010	1267830	214927	1267829	214940	4.0	-10.67	14	89
EW10-SC30[c]	3/2/2010	1055	vibracorer	3/3/2010	1268098	215026	1268100	215022	1.4	-43.83	14	98
EW10-SC31	3/5/2010	1220	vibracorer	3/8/2010	1267287	215034	1267289	215035	0.6	-54.72	14	94
EW10-SC32	3/2/2010	1025	vibracorer	3/3/2010	1267676	215084	1267683	215089	2.6	-37.53	14	99
EW10-SC33	3/2/2010	1136	vibracorer	3/4/2010	1267871	215110	1267860	215111	3.4	-30.87	14	96
EW10-SC34	3/8/2010	1315	vibracorer	3/9/2010	1267416	215363	1267414	215362	0.7	-53.32	14	94
EW10-SC35	2/24/2010	1110	vibracorer	2/24/2010	1267806	215510	1267804	215517	2.2	-43.71	14	94.2
EW10-SC36[c]	3/8/2010	1250	vibracorer	3/9/2010	1267602	215781	1267599	215782	0.9	-52.71	14	90
EW10-SC37	2/25/2010	0940	vibracorer	2/26/2010	1267215	215783	1267214	215787	1.3	-53.24	14	97.1
EW10-SC38	2/24/2010	1330	vibracorer	2/25/2010	1267779	215793	1267775	215797	1.8	-52.04	14	97.1
EW10-SC39	3/8/2010	0855	vibracorer	3/10/2000	1267371	216089	1267370	216084	1.5	-53.98	14	95
EW10-SC40	3/9/2010	1035	vibracorer	3/10/2010	1267408	216466	1267401	216467	2.2	-53.56	14	95
EW10-SC41	2/24/2010	1350	vibracorer	2/25/2010	1267792	216611	1267794	216611	0.7	-52.62	14	98.6
EW10-SC42	3/9/2010	0845	vibracorer	3/10/2010	1267504	216787	1267484	216794	6.5	-54.93	14	98.6
EW10-SC43[c]	2/25/2010	1153	vibracorer	2/26/2010	1267235	216832	1267226	216826	3.2	-53.16	14	86.4
EW10-SC44	3/9/2010	0925	vibracorer	3/10/2010	1267472	217192	1267469	217194	0.9	-53.91	14	>100
EW10-SC45	2/24/2010	0945	vibracorer	2/25/2010	1267777	217252	1267783	217250	1.8	-51.58	14	>100
EW10-SC46	2/25/2010	1035	vibracorer	2/26/2010	1267210	217355	1267209	217340	4.7	-53.46	14	92.8
EW10-SC47	3/9/2010	1308	vibracorer	3/10/2010	1267422	217660	1267543	217654	36.9	-55.33	14	84
EW10-SC48[c]	3/4/2010	1055	vibracorer	3/5/2010	1267855	217669	1267853	217674	1.7	-33.55	14	96
EW10-SC49	3/9/2010	1115	vibracorer	3/10/2010	1267527	217974	1267527	217979	1.6	-54.05	14	99
EW10-SC50	3/4/2010	1126	vibracorer	3/5/2010	1267839	218092	1267841	218095	1.1	-37.55	14	84

Table 2-1. EW subsurface sediment sampling locations (cont.)

Location ID	Collection Date	Collection Time (PST)	Collection Method	Processing Date	Target Location[a]		Actual Location[a]		Distance from Target (m)	Mudline Elevation (above [+] or below [-] MLLW [ft])	Penetration Depth (ft)	Recovery (%)
					X	Y	X	Y				
EW10-SC51[c]	3/3/2010	1230	vibracorer	3/4/2010	1267316	218213	1267313	218208	1.8	-61.72	14	88
EW10-SC52	3/4/2010	1006	vibracorer	3/5/2010	1267874	218317	1267865	218318	2.8	-33.04	14	91
EW10-SC53	3/4/2010	0850	vibracorer	3/5/2010	1267694	218506	1267693	218510	1.3	-54.51	14	88
EW10-SC54	3/4/2010	0926	vibracorer	3/5/2010	1267907	218620	1267907	218619	0.3	-8.70	14	71
EW10-SC55	2/25/2010	1043	vibracorer	2/26/2010	1267245	218670	1267238	218670	2.1	-54.69	14	78.6
EW10-SC56[c]	3/9/2010	0845	vibracorer	3/11/2010	1267478	218688	1267476	218694	1.9	-56.10	14	92
EW10-SC57	3/1/2010	1220	vibracorer	3/2/2010	1268204	218890	1268202	218918	8.6	-40.82	14	99
EW10-SC58	3/1/2010	1310	vibracorer	3/2/2010	1268991	218983	1268982	218978	3.2	-34.72	14	90
EW10-SC59[c]	3/1/2010	1035	vibracorer	3/2/2010	1268509	218984	1268513	218984	1.3	-41.03	14	99
EW10-SC60	3/1/2010	0855	vibracorer	3/2/2010	1268052	218994	1268047	218992	1.5	-42.30	14	99
EW10-SC61	3/1/2010	0955	vibracorer	3/2/2010	1267826	219053	1267827	219047	1.7	-42.72	14	91
EW10-SC62	3/9/2010	1115	vibracorer	3/11/2010	1267287	219275	1267290	219278	1.3	-54.55	14	93
EW10-SC63[c]	3/1/2010	1215	vibracorer	3/2/2010	1267775	219508	1267778	219507	1.1	-53.65	14	94
EW10-SC100	3/3/2010	1015	vibracorer	3/4/2010	1267169	215359	1267169	215363	1.2	-52.79	14	97
EW10-SC101	3/3/2010	0945	vibracorer	3/4/2010	1267236	217926	1267229	217923	2.2	-54.20	14	95

[a] Sampling location coordinates are Washington State Plane North, US survey ft, NAD83.

[b] Two borings to collect subsurface sediment samples for geotechnical analysis were planned in the QAPP (Windward 2010). However, field conditions prevented the two borings from being completed to their desired depth. The drilling and sampling of boring EW10-SB01 down to 60 ft was prevented by a layer of wood at 3.5 ft that prevented the augers from drilling vertically. The boring was terminated, renamed EW10-SB01A, and another boring was resumed a short distance away, named EW10-SB01B, and continued down to 60.5 ft. The drilling of boring EW10-SB02 down to 60 ft was prevented by high winds that threatened to break the drilling rods and augers in the ground while sampling at 20 ft below the mudline. Winds pushed the barge off the center of the hole and stretched anchor lines, which could have resulted in the potential loss of equipment. The drilling rods and equipment were removed, the boring was terminated and renamed EW10-SB02A, and drilling was resumed the next day. When drilling resumed near this location, augers were sent down to 17 ft, where sampling continued. The new boring was named EW10-SB02B and was continued down to a depth of 61.5 ft below the mudline.

[c] Subsurface sediment samples for geotechnical analysis were also collected.

[d] Subsurface sediment core EW10-SC07A was rejected in favor of EW10-SC07B.

EW – East Waterway
ID – identification
MLLW – mean lower low water
PST – Pacific Standard Time
NAD83 – North American Datum of 1983
QAPP – quality assurance project plan

GPS signal strength was insufficient near and beneath the bridges so locations in that area were determined by laser telemetry using locations with known coordinates. Two actual locations, EW10-SC09 and EW10-SC47, were more than 10 m from their target sampling locations (Section 2.5). The rationale for the selection of subsurface sediment sampling locations was presented in Section 3.1.1 of the QAPP.

2.3 SAMPLE COLLECTION METHODS

Subsurface sediment cores were collected from February 22 to March 9, 2010, at a target depth of 14 ft (4.3 m) below mudline or until refusal, whichever was reached first. Sediment cores were collected using two methods, depending on location: 1) in the southern-most portion of the EW, a diver-assisted air-powered linear hammer core sampler called the MudMole™ was used, and 2) for the rest of the EW, a vibratory core sampler (i.e., vibracorer) was used. For MudMole™ and vibracorer sediment cores, a chain-of-custody form was compiled daily by Windward Environmental LLC (Windward) and Anchor QEA field staff. Deviations from the QAPP (Windward 2010) are presented in Section 2.5. Sediment borings were also collected for geotechnical analysis. Each collection method is described in detail in the following subsections.

2.3.1 MudMole™ sampling method

The MudMole™ was operated by AMEC and deployed from a 30-ft pontoon research vessel at eight sampling locations in the southern-most portion of the EW (EW10-SC01 to EW10-SC06, EW10-SC08, and EW10-SC11). The targeted penetration was achieved at all sampling locations except EW10-SC01, EW10-SC02, and EW10-SC07A, at which the MudMole™ encountered refusal from sand and gravel layers. EW10-SC07A was revisited with the vibracorer (EW10-SC07B). Despite repeated attempts using the vibracorer, cores were not collected from locations EW10-SC01 and EW10-SC02 due to the presence of hard substrate. The penetration at these locations was less than 1ft for all attempts. Sampling results are summarized in Section 4.

At each sampling location, the MudMole™ was lowered to the sediment surface using a winch. An air-powered linear hammer was then used to drive a pre-cleaned and decontaminated core tube into the sediment. At approximately 2-ft intervals, the operator suspended the driving operation, and a diver measured the penetration depth of the core tube and internal recovery of the core (total core length minus the empty space within the core). These measurements were recorded on sediment core logs, which are included in Appendix B. After the core had been driven to 14 ft or refusal, final penetration and recovery measurements were made, the actual sampling position was recorded and the core was extracted. The bottom of each core tube was fitted with a hinged core catcher to minimize the loss of sediment during extraction. Once the sediment core was on board the sampling vessel, the core catcher end was inspected for signs of sediment loss during retrieval. In addition, an on-deck measurement from the top of the core tube to the surface of the sediment within the core tube was made to account for any movement or loss of sediment in the core tube

as the core catcher closed during extraction. Overlying water was siphoned out of the core tube on deck, and the cores were capped, taped, and labeled with the sampling location ID and the designations of "top" and "bottom." The core tubes were stored with the top higher than the bottom to prevent the loss of material and sealed to minimize moisture loss during transport. The sediment cores were transported to the processing laboratory at Analytical Resources, Inc. (ARI), in Tukwila, Washington, for processing.

The penetration and recovery data and the on-deck top-of-sediment measurements were entered into a spreadsheet in order to generate a bore log for each core. Each bore log included a graph that presented penetration versus distance from the top of the tube, which were used to identify the *in situ* depth of different sediment horizons. *In situ* depths are further described in Section 2.4.2 and presented on the core logs (Appendix B).

2.3.2 Vibracore sampling method

The vibracorer was operated by Marine Sampling Systems and deployed from the research vessel *Nancy Anne* and at 57 stations (EW10-SC07B, EW10-SC09 to EW10-SC63, EW10-SC100, and EW10-SC101). At all sampling locations, the vibracorer collected a continuous sample of subsurface sediment using a high-frequency vibrator that penetrated into the underlying sediment and caused minimal distortion. The bottom of each core tube was fitted with a hinged core catcher to minimize the loss of sediment during extraction. Penetration and recovery measurements were made once, at the end of driving, and averaged throughout the core. The vibracore method was also attempted at locations EW10-SC01 and EW10-SC02, but these attempts were not successful.

Once the core samples were deemed acceptable, the core catcher and cutterhead were removed, and a cap was placed over both ends of the core tube and firmly secured in place with duct tape. The core tube was labeled with permanent black pen and marked with the location ID and an arrow that pointed to the top of core. The cores were then cut into appropriate lengths, sealed, and labeled by section for vertical transport to the laboratory for processing. The cores were sealed tightly to prevent leakage or disturbance during transport and were cut to a maximum length of 5.7 ft in order to be stowed upright during transport. Cores were transported at the end of each collection day and stored overnight in a secure refrigerator at ARI.

2.3.3 Sediment boring method

Samples collected from the two borings at the mound area were collected at regular intervals from the mudline downward using two methods. Geotechnical index test samples were collected using a split-spoon sampler so that standard penetration test (SPT) blowcounts could be recorded. Geotechnical strength, consolidation, bulk density, and chemistry samples were obtained using stainless steel, thin-wall Shelby tubes because an undisturbed sample was required for these particular geotechnical

tests, and a larger core was needed to obtain sample of sufficient size for chemical analyses.

The Shelby tube and split-spoon sampler were used in an alternating sequence for each boring. The drill rig was used to advance a casing (hollow steel pipe or hollow-stem auger) to the top of the sampling interval. For chemistry samples, the drill rig hydraulically pushed a decontaminated 3-in.-diameter Shelby tube below the casing to collect a 24-in. sample. Where split-spoon samplers were used, the SPT was initiated using a calibrated hammer system to advance the 1.5-in. (inner diameter) sampler to a total of 18 in. below the casing for sample collection.

2.4 SUBSURFACE SEDIMENT CORE PROCESSING

This section describes the processing and sectioning of core tubes at the field laboratory, the calculation of *in situ* depths from measured depths in the field, the evaluation of mudline elevations, and the generation of sediment core logs.

2.4.1 Core processing and sampling

Subsurface sediment cores were processed and sampled at the field processing laboratory at ARI. Core processing began on February 23, 2010, and was completed on March 11, 2010. Core tubes were stored in a vertical position in laboratory refrigerators and were processed within 72 hours of receipt. Core processing involved four main steps: 1) cutting, 2) logging, 3) sectioning, and 4) sampling.

Cutting

Each core was cut lengthwise with a circular saw to expose the sediment. Care was taken to not spill turbid water from the top of the tube. A thin film of sediment that had been in direct contact with the side of the core was removed from the exposed sediment surface prior to logging the core. After each core had been opened, a preliminary screening with a photoionization detector (PID) was used to measure volatile organic compounds (VOCs) in the air space immediately above the exposed sediment. This was performed for the health and safety of the core processing team. PID readings are provided in Appendix B.

Logging

The sediment profile was then photographed in 1-ft increments of recovered sediment. The core was visually logged for major and minor contacts (i.e., areas in the core where sediment characteristics noticeably changed). Cores were characterized according to the Unified Soil Classification System, consistent with current American Society for Testing and Materials (ASTM) methods (ASTM 2001a). Sediment classification was based on ASTM D-2488 (ASTM 2001b). A tape measure was affixed to the sidewalls of the tube or processing table to measure the length of the sediment core based on recovered depths. Finally, each core was sub-sectioned for sampling

according to Methods A, B, or C, as described in the QAPP (Windward 2010) and summarized below.

Sectioning

Sediment was sampled in accordance with the QAPP (Windward 2010) based on location within the waterway. The sampling scheme consisted of Methods A, B, or C, unless stratigraphic boundaries were observed. If stratigraphic boundaries were observed, the samples were collected from intervals from within the same stratigraphic units rather than at the fixed intervals indicated by the sampling scheme. The sectioning decision for each core was made by the field geologist in consultation with US Environmental Protection Agency (EPA) oversight personnel, if present, at the time the core was sectioned.

Sediment sampled from Method A cores (i.e., EW10-SC09, EW10-SC10, EW10-SC12 to EW10-SC37, EW10-SC39, EW10-SC40, EW10-SC42-SC44, EW10-SC46 to EW10-SC63, EW10-SC100, and EW10-SC101) involved sub-sectioning sediment into 2-ft intervals. Sediment sampled from mudline to 4 ft of recovered depth was sent to the laboratory for analysis; samples from core depths greater than 4 ft to the bottom of the core were archived. The decision regarding the potential analysis of archived samples was made after preliminary unvalidated results of the chemical analyses of samples in the upper intervals had been inspected in consultation with EPA.

Method B cores (i.e., EW10-SC03 to EW10-SC08 and EW10-SC11) were sub-sectioned such that the uppermost 6 ft were split in half vertically. One half of this core was sub-sectioned into 2-ft sampling intervals, and the other half was sub-sectioned into 0.5-ft sampling intervals. Sediment sampled in the 0-to-2- and 2-to-4-ft intervals was sent to the laboratory for analysis; sediment in the 2-ft intervals beyond 4 ft and the 0.5-ft intervals was archived. As noted above for Method A cores, the decision regarding the potential analysis of archived samples was made after the preliminary unvalidated results of the chemical analyses of samples in the upper intervals had been inspected in consultation with EPA.

Method C cores (i.e., EW10-SC38, EW10-SC41, and EW10-SC45) were sub-sectioned into 1-ft intervals. Sediment sampled from depths of less than 2 ft was sent to the laboratory for analysis. Sediment from the remaining intervals from below 2 ft to the bottom of the core was archived. As noted above, the decision regarding the potential analysis of archived samples was made after the preliminary unvalidated results of chemical analyses in the upper intervals had been inspected in consultation with EPA.

Sampling intervals were adjusted as necessary to maintain consistency in stratigraphy within each sample or based on the presence of odor, sheen, or debris. Sediment descriptions were recorded on the sediment core processing logs. Draft logs were provided to EPA at the end of each sampling day, as requested, along with draft native sediment depth interpretations. Appendix B presents the final sediment core logs that include native sediment depth interpretations. Final sediment logs include

collection details, percent recovery, sampling intervals and chemicals, and stratigraphic interpretations.

Sampling

After each core was sectioned, a scoop of sediment was removed to expose a fresh sample of sediment, and PID measurements were made in order to determine the concentrations of VOCs in the air space above the exposed sediment. After PID measurements had been recorded on the field forms, geotechnical samplers were placed in the sediment so that sediment of each major type was sampled. Geotechnical samples were collected from 13 cores distributed throughout the EW to collect undisturbed sediment samples (EW10-SC05, EW10-SC11, EW10-SC14, EW10-SC20, EW10-SC22, EW10-SC30, EW10-SC36, EW10-SC43, EW10-SC48, EW10-SC51, EW10-SC56, EW10-SC59, and EW10-SC63). The geotechnical core sampler consisted of a 2-in.-diameter by 6-in.-long Dames and Moore sampling tube. The sampler was pushed (or gently pounded with a mallet when necessary) into the sediment. A metal plate was placed across the bottom to lift the tube out of the core, and plastic caps were placed over both ends of the tube to secure sediment in place. The final sample consisted of an intact portion of sediment from each major sediment type.

After the placement of geotechnical samplers, but prior to removal, chemistry samples were collected. For chemistry samples, sediment was transferred from designated sampling intervals into decontaminated stainless steel bowls, homogenized until uniform in color and texture, and placed into pre-cleaned labeled glass jars for laboratory analysis. When material larger than approximately 1 in. in diameter (e.g., organisms, shell fragments, debris) was encountered, it was removed prior to the placement of sediment in sample containers. Removed materials were noted in the sediment core logs, and debris (e.g., asphalt agglomerate, rope) was retained. All sample containers were labeled on the outside (using indelible ink) with the sample ID number, time and date collected, and analyses to be performed.

2.4.2 Calculating *in situ* depths

The volume of sediment retained in the core tube during collection was typically less than 100% of the drive length, a common occurrence during sediment coring. The recovery of sediment in the core is dependent on the nature of the sediment, which is generally not uniform throughout the core, and frictional forces encountered during driving. Lower recoveries in some samples were a result of: 1) sediment dewatering, 2) compaction of cohesionless and saturated sediment (a result of vibracore sampling) or compression of cohesionless and saturated sediment (a result of MudMole™ sampling), 3) obstruction or blockage during penetration that prevented material from entering the tube, or 4) sediment loss during recovery of the core tube through the water column. Because of these factors, the amount of material in the core tube during field processing (i.e., the recovered depth) typically did not reflect the actual depth below the mudline from which the sediment core was collected (referred to as the *in*

situ depth). *In situ* depths were calculated in two ways depending on the sample collection method (MudMole™ or vibracorer). The *in situ* depths are provided in Appendix B.

For the MudMole™, incremental penetration and recovery information was collected during sampling, allowing for an accurate characterization of *in situ* conditions throughout the length of the core. Incremental penetration and recovery data were recorded by divers at approximately 1-to-2-ft intervals from inside and outside the core tube with a weighted tape measure. The data were used to generate a graph on the bore log, which provides a record of the core tube penetration and sediment core recovery at regular intervals for each core. When the amount of sediment recovered was less than 100% of the drive interval, these graphs were used to convert the recovered depths recorded during field processing to corresponding *in situ* depths.

For the vibracorer, *in situ* depths were estimated based on the difference between the recovered depth and the drive depth over the entire length of the core.

2.4.3 Evaluation of mudline elevations

Mudline elevations were evaluated using multibeam survey data and tidal-corrected water depth data. Bathymetric data was collected in January 2010 by David Evans and Associates using multibeam surveying methods. Bathymetry measurements were recorded every 1 m and were referenced to MLLW (in feet), which is defined as the project datum. Mudline elevations were then assessed for each core location using the computer-aided design/geographic information system (CAD/GIS) surface.

Vertical data were also collected during coring by measuring the depth from the water surface to the top of the sediment surface at each sampling location using a lead line, per the QAPP (Windward 2010). This depth was corrected for tidal influence after sampling using the National Oceanic and Atmospheric Administration's National Ocean Service automated tide gauge at Pier 54. Water depth and lead line measurements are provided on the sediment core logs (Appendix B).

2.4.4 Generating sediment core logs

Sediment core processing logs generated in the field were converted into the final electronic format using the software program LogPlot™ 7. The sediment core processing logs included a variety of information, including physical attributes such as sediment particle size and shape, density, color, and consistency; stratification, lenses, or layers; the presence of debris, sheen, odor, or staining; coordinates and mudline elevations; penetration depth and percent recovery, calculated *in situ* depths, and other distinguishing features.

The core logs (Appendix B) record the observations relating to lithology and stratigraphy for each core. The logs also include four major types of information: 1) lithologic profiles based on recovered depths using description categories based on ASTM nomenclature (ASTM 2001b); 2) sampling intervals based on recovered depths

and selected analyses; 3) detailed sediment descriptions and observations; and 4) combined lithology and interpreted stratigraphy profiles based on the information described above and organized according to *in situ* depths.

The core logs presented in Appendix B contain final descriptions and assessment of stratigraphy (i.e., depth to native), final mudline elevations, updated sediment descriptions based on laboratory grain size and Atterberg limit test results, and updated interpretations of native contacts based on the above information as well as supplemental information such as dredge records, bathymetry, and historic reports.

2.5 FIELD DEVIATIONS FROM THE QAPP

Field deviations from the QAPP (Windward 2010) included modifications to sampling locations, core collection acceptance criteria, and processing and sampling methods. These field deviations did not affect the data quality. EPA was consulted on deviations that involved a change in study design. The deviations included the following:

- No cores were obtained from locations EW10-SC01 and EW10-SC02 despite repeated attempts because of the presence of a hard substrate in the sampling area south of the bridges.
- MudMole™ core sample acceptance criteria were modified at locations EW10-SC03, EW10-SC04, EW10-SC07A, and EW10-SC11 because of the difficulty in obtaining acceptable cores as a result of the hard substrate. The criteria indicated in the QAPP (Windward 2010) were modified from a minimum 14-ft penetration depth (or refusal) and 75% on-deck recovery to acceptance criteria of the best professional judgment of the core collection team. This judgment was based on the initial substrate reconnaissance performed by divers to find the most suitable locations for collecting cores within the range of the target coordinates. Therefore, the first coring attempt in which sediment was recovered at the deepest possible depth was accepted. Cores EW10-SC03, EW10-SC04, and EW10-SC11 were accepted for processing and analysis based on best professional judgment; core EW10-SC07A was re-attempted with the vibracorer (EW10-SC07B) with success rates within the acceptance criteria specified in the QAPP. Samples from EW10-SC07B were submitted for analysis; samples from EW10-SC07A were archived.
- The percent recovery of vibracore sample EW10-SC16 was below the QAPP guidance (Windward 2010). Initial calculations performed by the core collection team yielded a percent recovery within acceptance criteria (76%). During the quality control effort, recovery was recalculated to be 73% recovery. This core was accepted and processed without a second collection attempt.
- The field crew was unable to use the GPS when collecting samples at locations EW10-SC03 and EW10-SC04 because they were located under a bridge. Coordinates were determined using the vessel's range finder based on the proximity to the bridge and proximity to the shoreline.

- Mudline elevations were determined using the 2010 multibeam bathymetric survey conducted by David Evans and Associates, as opposed to the validated data from the tide gauge at Pier 54, as originally scoped in the QAPP (Windward 2010). Multibeam bathymetry data were collected prior to sediment coring and determined to be more accurate than data based on lead line and tidal corrections.
- The method for sampling the Method B cores was modified slightly to ensure that a sufficient amount of sample from the 2-ft sections was placed into jars for chemical analysis. Rather than dividing one-half of the core into 0.5-ft sections and the other half into 2-ft sections and placing the sediment directly into sample jars as shown in Figure 3-2 of the QAPP (Windward 2010), 0.5-ft sections from both vertical halves of the core were first sampled and homogenized, with sediment from each 0.5-ft section being homogenized in a separate bowl. To create the sample for each 2-ft section, equal amounts of sediment from the four individual bowls of sediment were removed and homogenized in a single bowl until sufficient sediment was obtained to fill the jars for the 2-ft section analyses. The remaining sediment in the four bowls with sediment from the 0.5-ft section was placed into jars for the 0.5-ft archive samples.
- Two locations, EW10-SC09 and EW10-SC47, were sampled > 10 m from their target locations (Table 2-2). EPA was consulted on the actual locations as soon as the deviations from target locations were identified. These deviations from the target locations will not affect the usability of the dataset for the purposes of the SRI or the FS.

Table 2-2. Actual sampling locations that were > 10 m from their target sampling locations

Sampling Location ID	Distance from Target Sampling Location (m)	Rationale for Move
EW10-SC09	18.3	Sampling was difficult in original location; location was adjusted to achieve required penetration.
EW10-SC47	36.9	Actual sampling location was more than 10 m from target sampling location as a result of operator error during the entering target coordinates.

ID – identification

3 Laboratory Methods

This section describes the methods used to select samples for chemical analysis, the methods used to chemically analyze sediment samples, and any deviations from the QAPP (Windward 2010) pertaining to laboratory methods.

3.1 Samples Selected for Analysis

All samples collected from the 0-to-2- and 2-to-4-ft intervals were analyzed for metals, polychlorinated biphenyl (PCB) Aroclors, semivolatile organic compounds (SVOCs), and conventional parameters; and a subset was analyzed for butyltins and pesticides, as specified in the QAPP (Windward 2010). Some samples may be analyzed for dioxin/furans in the future. Following the first round, two additional rounds of chemical analyses were conducted on archived sediment samples. The second round was conducted on a subset of archived samples collected from depths greater than 4 ft. A meeting was held with EPA on July 15, 2010, to review preliminary unvalidated data and decide which archived samples should be analyzed in the second round. Archived samples were analyzed to characterize chemistry at depth when unvalidated data from the 2-to-4-ft interval samples analyzed during the first round had detected chemical concentrations that exceeded either Washington State Sediment Management Standards (SMS) criteria (i.e., sediment quality standards [SQS] or cleanup screening levels [CSL]) or Dredged Material Management Program (DMMP) guidelines (i.e., screening levels [SLs] or maximum levels [ML]). The third round of analyses was conducted on a subset of archived samples collected from > 6 ft if unvalidated data from the second round indicated that further characterization was necessary based on SMS exceedances at depth. Decisions regarding the analyses to be conducted during the third round were made in consultation with EPA. In addition, archived samples (subsurface and surface sediment) were selected for the analysis of dioxins and furans in consultation with EPA. The dioxin and furan data for all of these samples will be provided in a separate data memo (Windward 2011).

In some cases, depth intervals that lacked chemical characterization were not selected for analysis (i.e., some depth intervals were skipped at particular locations). For example, there may have been a location with SMS exceedances in the 4-to-6-ft sampling interval, but only the 8-to-10-ft interval was analyzed in the second round (skipping the 6-to-8-ft interval). This approach was used to limit the number of additional analyses needed, and such decisions were made in consultation with EPA. If estimates regarding the depth of contamination are needed for locations with skipped intervals, chemical concentrations in the skipped interval(s) will be conservatively assumed to be similar to those in the preceding interval.

Table 3-1 presents the target chemicals and parameters for each sediment core analyzed by interval.

Table 3-1. Analyses performed on subsurface sediment samples

Sampling Location ID	Sampling Interval (ft)	Mercury	Other Metals	SVOCs	PCBs	Butyltins	Pesticides	Grain Size	Conventionals[a]
EW10-SB01	0 – 2	X	X	X	X			X	X
	3.5 – 5.2	X	X	X	X			X	X
	12.5 – 14.5	X	X	X	X			X	X
	16 – 18	X	X	X	X			X	X
	24.5 – 26.5			X					
EW10-SB02	0 – 2	X	X	X	X			X	X
	4 – 6	X	X	X	X			X	X
	12 – 14	X	X	X	X			X	X
EW10-SC03	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
EW10-SC04	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	4 – 4.5			X					X
EW10-SC05	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
EW10-SC06	0 – 2	X	X	X	X	X		X	X
	2 – 4	X	X	X	X	X		X	X
	4 – 6	X							X
	6 – 7.4	X							X
	7.4 – 10	X							X
EW10-SC07B	0 – 2.3	X	X	X	X			X	X
	2.3 – 4	X	X	X	X			X	X
	4 – 6				X				X
EW10-SC08	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	6 – 8	X	X	X	X				X
	8 – 9.4	X							X
	9.4 – 11	X							X
EW10-SC09	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	6 – 7.2	X		X	X				X
	7.2 – 9.2	X		X	X				X
	9.2 – 11.2	X							X

Table 3-1. Analyses performed on subsurface sediment samples (cont.)

Sampling Location ID	Sampling Interval (ft)	Mercury	Other Metals	SVOCs	PCBs	Butyltins	Pesticides	Grain Size	Conventionals[a]
EW10-SC10	0 – 2.4	X	X	X	X	X		X	X
	2.4 – 4	X	X	X	X	X		X	X
	4 – 6				X				X
	6 – 8				X				X
EW10-SC11	0 – 2	X	X	X	X		X	X	X
	2 – 4	X	X	X	X		X	X	X
	4 – 6	X	X	X	X		X		X
	6 – 8	X			X				X
EW10-SC12	0 – 2	X	X	X	X			X	X
	2 – 3.1	X	X	X	X			X	X
	5 – 7	X		X	X				X
	7 – 9	X							X
EW10-SC13	0 – 1.6	X	X	X	X			X	X
	1.6 – 4	X	X	X	X			X	X
EW10-SC14	0 – 2.8	X	X	X	X			X	X
	2.8 – 5.3	X	X	X	X			X	X
	5.3 – 7.3				X				X
EW10-SC15	0 – 2.3	X	X	X	X			X	X
	2.3 – 4	X	X	X	X			X	X
EW10-SC16	0 – 1.9	X	X	X	X			X	X
	1.9 – 4	X	X	X	X			X	X
	4 – 6	X							X
	6 – 8.2	X							X
EW10-SC17	0 – 2	X	X	X	X	X		X	X
	2 – 4	X	X	X	X	X		X	X
	6 – 8	X			X				X
	8 – 10	X							X
	11.5 – 13	X			X				X
EW10-SC18	0 – 2	X	X	X	X	X		X	X
	2 – 4	X	X	X	X	X		X	X
	4 – 6	X		X	X				X
	6 – 8	X			X				X
EW10-SC19	0 – 2.5	X	X	X	X		X	X	X
	2.5 – 4	X	X	X	X		X	X	X
	4 – 6			X	X				X

Table 3-1. Analyses performed on subsurface sediment samples (cont.)

Sampling Location ID	Sampling Interval (ft)	Mercury	Other Metals	SVOCs	PCBs	Butyltins	Pesticides	Grain Size	Conventionals[a]
EW10-SC20	0.4 – 2.4	X	X	X	X			X	X
	2.4 – 4.4	X	X	X	X			X	X
EW10-SC21	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	5.3 – 7.8	X		X	X				X
	7.8 – 10	X							X
EW10-SC22	0 – 1.9	X	X	X	X			X	X
	1.9 – 4	X	X	X	X			X	X
EW10-SC23	0 – 1.3	X	X	X	X	X		X	X
	1.3 – 3.2	X	X	X	X	X		X	X
	7 – 9	X							X
	9 – 11	X	X	X	X				X
	11 – 12.9	X		X					X
EW10-SC24	0 – 2	X	X	X	X			X	X
	2 – 4.7	X	X	X	X			X	X
	6 – 8	X		X	X				X
	8 – 10	X		X	X				X
EW10-SC25	0.8 – 2.8	X	X	X	X			X	X
	2.8 – 4.8	X	X	X	X			X	X
EW10-SC26	0 – 2.7	X	X	X	X	X		X	X
	2.7 – 4	X	X	X	X	X		X	X
EW10-SC27	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	6 – 7.7	X	X	X	X				X
	7.7 – 10	X							X
	10 – 12.5	X							X
EW10-SC28	1 – 3	X	X	X	X			X	X
	3 – 5	X	X	X	X			X	X
	6.2 – 8	X		X	X				X
	8 – 10	X							X
	10 – 11.7	X							X
EW10-SC29	0 – 2	X	X	X	X			X	X
	2 – 3.9	X	X	X	X			X	X
	9.7 – 11.7	X	X	X	X				X

Table 3-1. Analyses performed on subsurface sediment samples (cont.)

Sampling Location ID	Sampling Interval (ft)	Mercury	Other Metals	SVOCs	PCBs	Butyltins	Pesticides	Grain Size	Conventionals[a]
EW10-SC30	0 – 2	X	X	X	X			X	X
	2 – 4.3	X	X	X	X			X	X
	4.3 – 6	X			X				X
	6 – 8	X			X				X
EW10-SC31	0.7 – 2.7	X	X	X	X			X	X
	2.7 – 5.3	X	X	X	X			X	X
EW10-SC32	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	8.9 – 10.9	X	X	X	X				X
	10.9 – 12.9	X							X
EW10-SC33	0 – 2	X	X	X	X	X		X	X
	2 – 3.5	X	X	X	X	X		X	X
	5.8 – 8	X	X	X	X				X
	8 – 9.8	X							X
EW10-SC34	0.2 – 2.4	X	X	X	X			X	X
	2.4 – 3.9	X	X	X	X			X	X
EW10-SC35	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
EW10-SC36	0.9 – 3	X	X	X	X	X		X	X
	3 – 5	X	X	X	X	X		X	X
EW10-SC37	0 – 2	X	X	X	X	X		X	X
	2 – 3.9	X	X	X	X	X		X	X
EW10-SC38	0 – 0.8	X	X	X	X			X	X
	0.8 – 2	X	X	X	X			X	X
EW10-SC39	0 – 2	X	X	X	X		X	X	X
	2 – 3.4	X	X	X	X		X	X	X
EW10-SC40	0 – 1	X	X	X	X	X		X	X
	1 – 4	X	X	X	X	X		X	X
	4 – 6.8	X			X				X
	6.8 – 8	X							X
EW10-SC41	0 – 0.6	X	X	X	X			X	X
	0.6 – 2	X	X	X	X			X	X

Table 3-1. Analyses performed on subsurface sediment samples (cont.)

Sampling Location ID	Sampling Interval (ft)	Mercury	Other Metals	SVOCs	PCBs	Butyltins	Pesticides	Grain Size	Conventionals[a]
EW10-SC42	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	4 – 5.5	X			X				X
	5.5 – 8	X							X
	8 – 10	X							X
EW10-SC43	0 – 1.3	X	X	X	X	X		X	X
	1.3 – 4	X	X	X	X	X		X	X
	4 – 6				X				X
	6 – 8				X				X
EW10-SC44	0 – 2	X	X	X	X	X		X	X
	2 – 4	X	X	X	X	X		X	X
EW10-SC45	0 – 1	X	X	X	X			X	X
	1 – 1.7	X	X	X	X			X	X
EW10-SC46	0 – 2.3	X	X	X	X	X		X	X
	2.3 – 4	X	X	X	X	X		X	X
EW10-SC47	0 – 2	X	X	X	X	X		X	X
	2 – 3.6	X	X	X	X	X		X	X
	3.6 – 6	X			X				X
	6 – 8	X							X
EW10-SC48	0 – 2	X	X	X	X			X	X
	2 – 4.7	X	X	X	X			X	X
	4.7 – 6	X	X		X				X
	6 – 8	X			X				X
EW10-SC49	0 – 1.6	X	X	X	X	X		X	X
	1.6 – 4	X	X	X	X	X		X	X
EW10-SC50	0 – 1.6	X	X	X	X	X		X	X
	1.6 – 4	X	X	X	X	X		X	X
EW10-SC51	0 – 2	X	X	X	X	X		X	X
	2 – 3.8	X	X	X	X	X		X	X
EW10-SC52	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	4 – 6				X				X
EW10-SC53	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
	5 – 7				X				X

Table 3-1. Analyses performed on subsurface sediment samples (cont.)

Sampling Location ID	Sampling Interval (ft)	Mercury	Other Metals	SVOCs	PCBs	Butyltins	Pesticides	Grain Size	Conventionals[a]
EW10-SC54	0 – 2	X	X	X	X		X	X	X
	2 – 4	X	X	X	X		X	X	X
	8 – 9.2	X	X	X	X		X		X
EW10-SC55	0 – 1.8	X	X	X	X			X	X
	1.8 – 4	X	X	X	X			X	X
EW10-SC56	0 – 2	X	X	X	X	X		X	X
	2 – 4	X	X	X	X	X		X	X
EW10-SC57	0 – 2	X	X	X	X		X	X	X
	2 – 4	X	X	X	X		X	X	X
EW10-SC58	0 – 1.8	X	X	X	X			X	X
	1.8 – 4	X	X	X	X			X	X
	6 – 8			X					X
EW10-SC59	0 – 2	X	X	X	X	X		X	X
	2 – 4	X	X	X	X	X		X	X
EW10-SC60	0 – 0.8	X	X	X	X			X	X
	0.8 – 3	X	X	X	X			X	X
EW10-SC61	0 – 1	X	X	X	X			X	X
	1 – 3	X	X	X	X			X	X
EW10-SC62	0 – 2	X	X	X	X			X	X
	2 – 3.3	X	X	X	X			X	X
EW10-SC63	0 – 2	X	X	X	X			X	X
	2 – 4	X	X	X	X			X	X
EW10-SC100	0 – 1.1					X			X
	1.1 – 3					X			X
EW10-SC101	0 – 2.3					X			X
	2.3 – 4					X			X
Total		**179**	**138**	**149**	**165**	**42**	**12**	**129**	**194**

Note: Thirty-eight samples were analyzed only for mercury, and three samples were analyzed only for mercury and cadmium.

[a] Conventionals included TOC and percent moisture.

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TOC – total organic carbon

Table 3-2 presents the geotechnical analyses performed for each subsurface sediment core and boring sample from 1- and 2-ft sampling intervals.

Table 3-2. Geotechnical analyses performed on EW subsurface sediment core and boring samples collected from 1- and 2-ft sampling intervals

Sampling Location ID	Sampling Interval (ft)	Grain Size	Conventionals[a]	Geotechnical[b]
EW10-SB01	2 – 3.5	X		X
	5.5 – 7	X		X
	9 – 10.5			X
	10.5 – 12	X		X
	14.5 – 16			X
	18 – 19.5			X
	21.5 – 23			X
	23 – 24.5	X	X	X
	26.5 – 28			X
	28 – 29.5	X		X
	30.5 – 32		X	X
	34 – 35.5			X
	40.5 – 42			X
	45 – 46.45	X		X
	51.5 – 53			X
	59 – 60.5	X	X	X
EW10-SB02	2 – 4			X
	6 – 8			X
	14 – 15.5	X		X
	18.5 – 20		X	X
	19 – 20.5	X		X
	22.5 – 24			X
	28.5 – 30	X		X
	34.5 – 36			X
	40 – 41.5			X
	50 – 51.5	X		X
	55 – 56.5		X	X
	60 – 61.5			X
EW10-SC05	2.1		X	X
	4.9		X	X
EW10-SC11	3		X	X
	5		X	X
	6.7		X	X

Sampling Location ID	Sampling Interval (ft)	Grain Size	Conventionals[a]	Geotechnical[b]
EW10-SC14	0.8		X	X
	2.4		X	X
	7.5		X	X
EW10-SC20	5.5		X	X
	10.5		X	X
EW10-SC22	1.0		X	X
	4.0		X	X
EW10-SC30	2.0		X	X
	6.0		X	X
	10.8		X	X
EW10-SC36	0.5		X	X
	1.4		X	X
	6.0		X	X
EW10-SC43	0.5		X	X
	7.6		X	X
EW10-SC48	2		X	X
	8.9		X	X
EW10-SC51	2 – 2		X	X
	8.9 – 8.9		X	X
EW10-SC56	2 – 2		X	X
	4 – 4		X	X
	8.5 – 8.5		X	X
EW10-SC59	2 – 2		X	X
	3.5 – 3.5		X	X
EW10-SC63	1.2 – 1.2		X	X
	3 – 3		X	X
Total		**11**	**36**	**59**

[a] Conventionals included measurements of both dry and wet bulk density.
[b] Geotechnical measurements included specific gravity, liquid limit, plastic limit and plastic index.
EW – East Waterway
ID – identification

3.2 METHODS FOR CHEMICAL ANALYSES

All chemical analyses of sediment samples were conducted at ARI, except for pesticide analyses, which were conducted at Columbia Analytical Services, Inc. (CAS). Table 3-3 presents the analytical methods and sample handling requirements.

Table 3-3. Methods used to analyze subsurface sediment samples

Chemical	Method	Reference	Maximum Sample Holding Time[a]	Preservative
PCBs as Aroclors	GC/ECD	EPA 8082	14 days to extract, 40 days to analyze[b, c]	cool/0 – 6 °C
Organochlorine pesticides[d]	GC/ECD or HRGC/HRMS	EPA 8081A or EPA 1699M	14 days to extract, 40 days to analyze[b, c]	cool/0 – 6 °C
SVOCs (including PAHs)[e]	GC/MS	EPA 8270D	14 days to extract, 40 days to analyze[b, c]	cool/0 – 6 °C
Selected SVOCs[f]	GC/MS-SIM	EPA 8270-SIM	14 days to extract, 40 days to analyze[b, c]	cool/0 – 6 °C
Mercury	CVAA	EPA 7471A	28 days[g]	cool/0 – 6 °C
Other metals[h]	ICP-AES or ICP-MS	EPA 6010B or EPA 200.8	6 months[b]	cool/0– 6 °C
Tributyltin, dibutyltin, monobutyltin (as ions)	GC/FPD	Krone et al. (1989)	14 days to extract, 40 days to analyze[c]	cool/0 – 6 °C
Grain size	sieve/pipette	PSEP (1986)	6 months	cool/0 – 6 °C
TOC	combustion	Plumb (1981)	14 days[g]	cool/0 – 6 °C
Total solids	oven-dried	PSEP (1986)	7 days[g]	cool/0 – 6 °C
Atterberg limits	sieve	ASTM D4318	none	none
Specific gravity	pycnometer	ASTM D854	none	none
Bulk density	volumetric/ gravimetric	ASTM D2937	none	none

[a] All sample extracts were archived frozen at the laboratory and remain frozen until the Windward project manager authorizes their disposal.

[b] Sediment may be frozen, with a maximum holding time of 1 year.

[c] Aqueous rinsate blanks have a maximum holding time of 7 days to extract and 40 days to analyze.

[d] Target pesticides included 4,4′-DDT, 4,4′-DDE, 4,4′-DDD, 2,4′-DDT, 2,4′-DDE, 2,4′-DDD, aldrin, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC, oxychlordane, alpha- and gamma-chlordane, cis- and trans-nonachlor, dieldrin, endosulfan, endosulfan sulfate, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, methoxychlor, mirex, and toxaphene.

[e] Target PAHs included anthracene, pyrene, dibenzofuran, benzo(g,h,i)perylene, indeno(1,2,3-cd)pyrene, fluoranthene, total benzofluoranthenes, acenaphthylene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, benz(a)anthracene, acenaphthene, phenanthrene, fluorene, 1-methylnaphthalene, naphthalene, 2-methylnaphthalene.

[f] Selected SVOCs for SIM included 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 2,4-dimethylphenol, 2-methylphenol, benzyl alcohol, butyl benzyl phthalate, dibenz(a,h)anthracene, di-methylphthalate, hexachlorobenzene, hexachlorobutadiene, n-nitrosodimethylamine, n-nitrosodiphenylamine, n-nitroso-di-n-propylamine, and pentachlorophenol.

[g] Sediment may be frozen, with a maximum holding time of 6 months.

[h] Other metals included arsenic, antimony, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. Aqueous rinsate blanks were preserved with nitric acid.

ASTM – American Society for Testing and Materials
CVAA – cold vapor atomic absorption
EPA – US Environmental Protection Agency
GC/ECD – gas chromatography/electron capture detection
GC/FPD – gas chromatography/flame photometric detection
GC/MS – gas chromatography/mass spectrometry
HRGC/HRMS – high resolution gas chromatography/ high resolution mass spectrometry
ICP-AES – inductively coupled plasma-atomic emission spectrometry
ICP-MS – inductively coupled plasma-mass spectrometry
PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
PSEP – Puget Sound Estuary Program
SIM – selected ion monitoring
SVOC – semivolatile organic compound
TOC – total organic carbon

3.3 LABORATORY DEVIATIONS FROM THE QAPP

This section discusses laboratory deviations from the QAPP (Windward 2010). ARI and CAS followed the methods and procedures described in the QAPP, with the following exceptions:

- The subsurface sediment QAPP (Windward 2010) specified that organochlorine pesticides would be analyzed using EPA 8081A. Organochlorine pesticides were analyzed using EPA 1699M as well as EPA 8081A. EPA 1699M was used because this method is not susceptible to analytical interference from PCB congeners. The quality of the data has not been negatively affected by this deviation.
- Butyltins were analyzed using gas chromatography/mass spectrometry (GS/MS) with selected ion monitoring (SIM). The surface sediment QAPP (Windward 2010) specified that butyltin would be analyzed using gas chromatography/flame photometric detection (GC/FPD) in error. The quality of the data has not been affected by this deviation.

4 Results

This section summarizes the results of chemical and geotechnical analyses conducted on subsurface sediment samples collected in the EW (Sections 4.1 and 4.2, respectively). The results of the data validation, which was conducted by EcoChem, are discussed in Section 4.3.

4.1 EW SUBSURFACE SEDIMENT CHEMISTRY RESULTS

The results of the chemical analyses are summarized by chemical group in Section 4.1.1 and by location in Section 4.1.2. Data tables that contain all chemical results by sample ID are presented in Appendix A.

A detailed discussion of the approach used to average laboratory replicates is presented in Appendix C. Methods for calculating concentrations for total PCBs, total polycyclic aromatic hydrocarbons (PAHs), total dichlorodiphenyltrichloroethanes (DDTs), and total chlordane are also presented in Appendix C. The number of significant figures shown for each concentration in all result tables in this section was specified by the analytical laboratory, as described in Appendix C. There was no additional manipulation of significant figures. Laboratory data are presented in Appendix E.

4.1.1 Summary of results by chemical group

This section presents summaries of the chemical results for the following groups of chemicals: metals and mercury, butyltins, SVOCs, PCBs, pesticides, and conventional parameters (i.e., grain size, total organic carbon [TOC], and total solids).

For the purpose of summarizing and presenting the results in this section, each of the samples analyzed was placed into one of five interval categories (0 to 2 ft, 2 to 4 ft, 4 to 6 ft, 6 to 10 ft, and > 10 ft). The actual recovered sample intervals and the interval category assigned for each analyzed sample are presented in Table A-11 in Appendix A.

Data summaries include the number of detections, the range of detected concentrations, the mean of detected concentrations, and the range of reporting limits (RLs) for analytes reported as non-detects.

Tables in this section include comparisons of detected chemical concentrations in subsurface sediment with SMS criteria or DMMP guidelines for chemicals not included in SMS. Some of the SMS criteria are based on organic carbon (OC)-normalized concentrations. If the TOC content of a sediment sample is < 0.5%, then Washington State Department of Ecology guidance does not recommend OC-normalization (Ecology 1995). In addition, OC-normalization is not considered appropriate if the TOC is > 4%. In these cases, the dry-weight concentration was compared with the lowest apparent effects threshold (LAET) and second lowest apparent effects threshold (2LAET) (PTI 1988), which are analogous to the SQS and the CSL, respectively. A total of 37 samples analyzed for chemicals with SMS criteria had TOC concentrations < 0.5%, and 10 samples had TOC concentration > 4.0%. Appendix A contains detailed tables that present the results for each location as compared with SMS, DMMP, or apparent effects threshold (AET) values. Maps 4-1 and 4-2a through 4-2g show subsurface results compared with SMS/DMMP values for all detected results. In addition, Map 4-1 illustrates the core locations relative to the boundaries of dredge events that have been completed in the waterway since 2000.

4.1.1.1 Metals and Mercury

Table 4-1 summarizes the results for the 179 subsurface sediment samples that were collected from 63 locations in the EW and analyzed for metals and mercury. Thirty-eight samples were analyzed only for mercury, and three samples were analyzed only cadmium. Data tables that list the metals results for each sample, including field replicate samples, are presented in Appendix A. Table 4-1 also presents the numbers of samples that had detected concentrations within the following three categories: 1) ≤ SQS/SL, 2) > SQS/SL and ≤ CSL/ML, and 3) > CSL/ML. Map 4-3 shows exceedances of SMS criteria for cadmium. Map 4-4 shows exceedances of SMS criteria for mercury, and Map 4-5 shows exceedances of SMS criteria for zinc. Neither SMS criteria nor DMMP guidelines were available for cobalt, molybdenum, selenium, thallium, or vanadium.

Table 4-1. Summary of metals and mercury results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (mg/kg dw)			Reporting Limits (mg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria and DMMP Guidelines		
			Min	Max	Mean	Min	Max	≤ SQS/SL	> SQS/SL and ≤ CSL/ML	> CSL/ML
Antimony	0 – 2	1/66	8 J	8 J	na	6	20	1	0	0
	2 – 4	0/59	nd	nd	nd	5	20	0	0	0
	4 – 6	0/1	nd	nd	nd	8	8	0	0	0
	6 – 10	0/5	nd	nd	nd	6	9	0	0	0
	> 10	0/4	nd	nd	nd	6	7	0	0	0
Arsenic	0 – 2	66/66	2.0	56.7	12	na	na	63	0	0
	2 – 4	59/59	1.4	31.9	8.9	na	na	62	0	0
	4 – 6	1/1	7.8	7.8	na	na	na	1	0	0
	6 – 10	5/5	1.5	8.4	4.7	na	na	5	0	0
	> 10	4/4	3.4	5.6	4.3	na	na	4	0	0
Cadmium	0 – 2	51/66	0.3	45.2	3	0.2	0.3	45	2	4
	2 – 4	33/59	0.3	18.4	3	0.2	0.3	25	5	3
	4 – 6	3/3	1.3	2.1	1.8	na	na	3	0	0
	6 – 10	4/6	0.5	2.4	1	0.2	0.3	4	0	0
	> 10	4/4	0.3	0.5	0.4	na	na	4	0	0
Chromium	0 – 2	66/66	8.9	149	40	na	na	63	0	0
	2 – 4	59/59	9.4	131	40	na	na	62	0	0
	4 – 6	1/1	45.9	45.9	na	na	na	1	0	0
	6 – 10	5/5	9.5	48.9	25	na	na	5	0	0
	> 10	4/4	18.7	26.7	23.7	na	na	4	0	0

Table 4-1. Summary of metals and mercury results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (mg/kg dw)			Reporting Limits (mg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria and DMMP Guidelines		
			Min	Max	Mean	Min	Max	≤ SQS/SL	> SQS/SL and ≤ CSL/ML	> CSL/ML
Cobalt	0 – 2	66/66	3.7	13.1	8.3	na	na	nc	nc	nc
	2 – 4	59/59	3.8	16.4	7.2	na	na	nc	nc	nc
	4 – 6	1/1	11.9	11.9	na	na	na	nc	nc	nc
	6 – 10	5/5	3.7	12.6	7.4	na	na	nc	nc	nc
	> 10	4/4	6.3	8.2	7.4	na	na	nc	nc	nc
Copper	0 – 2	66/66	10.3	442	96	na	na	62	0	1
	2 – 4	59/59	7.9	271	67	na	na	62	0	0
	4 – 6	1/1	62.4	62.4	na	na	na	1	0	0
	6 – 10	5/5	8.1	79.4	34	na	na	5	0	0
	> 10	4/4	21.1	32.0	26.6	na	na	4	0	0
Lead	0 – 2	56/66	4	1,450 J	200	2	3	53	0	3
	2 – 4	41/59	3 J	525	200	2	3	39	2	0
	4 – 6	1/1	1,450	1,450	na	na	na	0	0	1
	6 – 10	3/5	12	85	39	2	3	3	0	0
	> 10	4/4	7	19	10	na	na	4	0	0
Mercury	0 – 2	55/66	0.03	3.37	0.6	0.02	0.03	23	16	16
	2 – 4	43/59	0.03	3.20	0.7	0.02	0.03	20	4	19
	4 – 6	10/11	0.02	1.06	0.4	0.03	0.03	5	1	4
	6 – 10	19/34	0.03	2.54	0.5	0.02	0.03	12	2	5
	> 10	7/9	0.06	0.23	0.1	0.03	0.03	7	0	0

Table 4-1. Summary of metals and mercury results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (mg/kg dw)			Reporting Limits (mg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria and DMMP Guidelines		
			Min	Max	Mean	Min	Max	≤ SQS/SL	> SQS/SL and ≤ CSL/ML	> CSL/ML
Molybdenum	0 – 2	57/66	0.7	11	3	0.6	0.7	nc	nc	nc
	2 – 4	43/59	0.7	28	4	0.5	0.7	nc	nc	nc
	4 – 6	1/1	2.3	2.3	na	na	na	nc	nc	nc
	6 – 10	4/5	0.9	5.2	2	0.6	0.6	nc	nc	nc
	> 10	4/4	0.7	1	0.8	na	na	nc	nc	nc
Nickel	0 – 2	66/66	7	86	30	na	na	63	0	0
	2 – 4	59/59	7	62	20	na	na	62	0	0
	4 – 6	1/1	45	45	na	na	na	1	0	0
	6 – 10	5/5	7	47	20	na	na	5	0	0
	> 10	4/4	15	24	20	na	na	4	0	0
Selenium	0 – 2	5/66	0.8	2	1	0.6	4	nc	nc	nc
	2 – 4	7/59	0.8	1.4	1	0.5	1	nc	nc	nc
	4 – 6	0/1	nd	nd	nd	0.8	0.8	nc	nc	nc
	6 – 10	0/5	nd	nd	nd	0.6	0.9	nc	nc	nc
	> 10	0/4	nd	nd	nd	0.6	0.7	nc	nc	nc
Silver	0 – 2	43/66	0.4	7	2	0.4	0.4	42	0	1
	2 – 4	25/59	0.6	6.8	3	0.3	1	23	0	2
	4 – 6	0/1	nd	nd	nd	0.5	0.5	0	0	0
	6 – 10	1/5	0.6	0.6	na	0.4	0.4	1	0	0
	> 10	0/4	nd	nd	nd	0.4	0.4	0	0	0

Table 4-1. Summary of metals and mercury results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (mg/kg dw)			Reporting Limits (mg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria and DMMP Guidelines		
			Min	Max	Mean	Min	Max	≤ SQS/SL	> SQS/SL and ≤ CSL/ML	> CSL/ML
Thallium	0 – 2	3/66	0.4	0.4	0.4	0.2	0.4	nc	nc	nc
	2 – 4	12/59	0.3	0.6	0.5	0.2	0.5	nc	nc	nc
	4 – 6	0/1	nd	nd	nd	0.3	0.3	nc	nc	nc
	6 – 10	0/5	nd	nd	nd	0.2	0.4	nc	nc	nc
	> 10	0/4	nd	nd	nd	0.2	0.3	nc	nc	nc
Vanadium	0 – 2	66/66	36.6	82.9	60	na	na	nc	nc	nc
	2 – 4	59/59	34.8	89.6	56	na	na	nc	nc	nc
	4 – 6	1/1	64.2	64.2	na	na	na	nc	nc	nc
	6 – 10	5/5	31.7	74.2	50.9	na	na	nc	nc	nc
	> 10	4/4	47.1	52.7	49.8	na	na	nc	nc	nc
Zinc	0 – 2	66/66	21	6,850	300	na	na	54	6	3
	2 – 4	59/59	19	2,280	200	na	na	55	5	2
	4 – 6	1/1	133	133	133	na	na	1	0	0
	6 – 10	5/5	19	183	70	na	na	5	0	0
	> 10	4/4	38	59	48	na	na	4	0	0

CSL – cleanup screening level
DMMP – Dredged Material Management Program
dw – dry weight
EW – East Waterway
J – estimated concentration
ML – maximum level
na – not applicable
nc – no criteria
nd – not detected
SL – screening level
SMS – Washington State Sediment Management Standards
SQS – sediment quality standards

Seven metals (arsenic, chromium, cobalt, copper, nickel, vanadium, and zinc) were detected in all of the subsurface sediment samples. All metals were detected in at least one sediment sample, and antimony was detected in only 1 of the 135 sediment samples. The remaining metals were detected at frequencies that ranged from 1% to 100% in the various sampling intervals.

Of the 179 samples analyzed for metals (including those samples that were analyzed only for mercury or mercury and cadmium), 43 had detected concentrations of metals > SQS/SL but < CSL/ML, and 64 had detected concentrations of metals > CSL/ML. Detected concentrations of six metals were > CSL/ML: cadmium (7 samples, Map 4-2), copper (1 sample), lead (4 samples), mercury (44 samples, Map 4-3), silver (3 samples) and zinc (5 samples, Map 4-4). The maximum concentrations of cadmium, chromium, selenium, silver, and zinc were detected in the one core that underwent geotechnical analysis, EW10-SB01 (in the 0-to-2-ft interval), located in the mound area. The maximum concentrations of molybdenum, thallium, and vanadium were detected in the 2-to-4-ft interval at location EW10-SC54. The maximum concentrations of antimony and nickel were detected in the 0-to-2-ft interval at location EW10-SC54. The maximum concentrations of arsenic and copper were detected in the 0-to-2-ft interval at location EW10-SC54.

4.1.1.2 Butyltins

Table 4-2 summarizes the results for the 42 subsurface sediment samples that were collected from 21 locations in the EW and analyzed for butyltins. Data tables that list the butyltin results for each sample, including field replicate samples, are presented in Appendix A. Of the 42 samples analyzed, tributyltin was detected in 19 samples from 21 locations, dibutyltin was detected in 11 samples from 42 locations, and monobutyltin was detected in 4 samples from 42 locations. The highest butyltin concentrations were detected in samples collected at depths of 0 to 2 ft. The maximum concentrations of all butyltins were detected in the 0-to-2-ft interval at location EW10-SC33 (Map 4-6).

Table 4-2. Summary of butyltin results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg/kg dw)			Reporting Limits (µg /kg dw)	
			Min	Max	Mean	Min	Max
Monobutyltin as ion	0 – 2	4/21	4.0	19	8.2	3.4	3.8
	2 – 4	0/21	nd	nd	nd	3.2	3.8
Dibutyltin as ion	0 – 2	10/21	5.9	160	30	4.8	5.4
	2 – 4	1/21	7.1	7.1	na	4.5	5.4
Tributyltin as ion	0 – 2	14/21	6.9 J	280	100	3.2	3.5
	2 – 4	5/21	4.5 J	41	23	3.0	3.6

dw – dry weight
EW – East Waterway
J – estimated concentration
na – not applicable
nd – not detected

4.1.1.3 PAHs

Table 4-3 summarizes the results for the 150 subsurface sediment samples that were collected from 63 locations in the EW and analyzed for PAHs. Data tables that list the PAH results for each sample, including field replicate samples, are presented in Appendix A. Table 4-3 also presents the numbers of samples with detected concentrations within the following three categories: 1) ≤ SQS/SL, 2) > SQS/SL and ≤ CSL/ML, and 3) > CSL/ML. TOC concentrations were less than 0.5% or greater than 4.0% in 41 of the 150 samples analyzed for SVOCs. For these samples, dry-weight concentrations of the chemicals were compared with LAET and 2LAET values.

Individual PAH compounds were frequently detected; 120 of the 150 samples analyzed for PAHs had at least one detected PAH compound. The highest concentration of total PAHs (209,000 µg/kg dry weight [dw]) was detected in the sediment interval from 0 to 2 ft at location EW10-SB01. The detected concentrations of total high-molecular-weight PAHs (HPAHs) exceeded the SQS but not the CSL in seven samples and exceeded the CSL in seven samples (Map 4-7). The detected concentrations of the low-molecular-weight PAHs (LPAHs) exceeded the SQS but not the CSL in six samples and exceeded the CSL in seven samples. The maximum concentrations of the 14 individual PAHs and total HPAH and total PAH were all detected in the 0-to-2-ft sediment interval at location EW10-SB01, located in the mound area. The maximum LPAH concentration was detected in the 12.5-to-14.5-ft interval at the same location.

Table 4-3. Summary of PAH results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
1-Methylnaphthalene	0 – 2	27/66	10 J	2,600	260	19	53	nc	nc	nc
	2 – 4	21/59	13 J	4,000	430	19	59	nc	nc	nc
	4 – 6	1/6	79	79	na	4.8	58	nc	nc	nc
	6 – 10	4/13	9.6	270 J	180	19	91	nc	nc	nc
	> 10	5/6	17 J	8,900	2,200	4.8	4.8	nc	nc	nc
2-Methylnaphthalene	0 – 2	35/66	10 J	2,700	170	19	53	33	1	1
	2 – 4	25/59	12 J	4,400	330	19	59	23	0	2
	4 – 6	1/6	71	71	na	4.8	58	1	0	0
	6 – 10	3/13	16	40	25	19	420	3	0	0
	> 10	6/6	5.3 J	4,200	760	na	na	5	0	1
Acenaphthene	0 – 2	39/66	12 J	11,000	540	19	53	33	2	4
	2 – 4	26/59	15 J	6,800	780	19	59	18	2	6
	4 – 6	1/6	700	700	na	4.8	58	0	1	0
	6 – 10	10/13	7.7	770	170	20	20	7	2	1
	> 10	6/6	8.7	10,000	2,200	na	na	2	1	3
Acenaphthylene	0 – 2	36/66	10 J	780	64	19	91	36	0	0
	2 – 4	13/59	15 J	350	84	19	120	13	0	0
	4 – 6	1/6	56 J	56 J	na	4.8	58	1	0	0
	6 – 10	2/13	11 J	220 J	120	4.8	91	2	0	0
	> 10	0/6	nd	nd	nd	4.8	20	0	0	0

Table 4-3. Summary of PAH results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Anthracene	0 – 2	52/66	9.7 J	6,600	400	19	20	50	2	0
	2 – 4	36/59	8.7 J	4,300	610	19	21	31	5	0
	4 – 6	2/6	90	880	480	4.8	20	2	0	0
	6 – 10	8/13	13	3,000	520	20	20	7	1	0
	> 10	6/6	25	3,900	840	na	na	5	1	0
Benzo(a)anthracene	0 – 2	53/66	13 J	17,000	740	19	20	48	3	2
	2 – 4	37/59	16 J	4,000	630	19	21	33	0	4
	4 – 6	3/6	13 J	1,000	400	4.8	20	3	0	0
	6 – 10	8/13	12	3,600	640	19	20	7	0	1
	> 10	5/6	23	640	190	19	19	5	0	0
Benzo(a)pyrene	0 – 2	53/66	19 J	12,000	770	19	20	48	2	3
	2 – 4	40/59	10 J	3,000	490	19	20	37	3	0
	4 – 6	3/6	19 J	670	310	4.8	20	3	0	0
	6 – 10	7/13	10	2,500	480	19	20	6	1	0
	> 10	5/6	16 J	200	73	19	19	5	0	0
Benzo(g,h,i)perylene	0 – 2	53/66	10 J	2,000	180	19	20	49	3	0
	2 – 4	33/59	11 J	840	150	19	21	32	1	1
	4 – 6	3/6	11 J	140	97	4.8	20	3	0	0
	6 – 10	7/13	8.6	880	180	19	20	6	0	1
	> 10	4/6	6.8	50	24	19	20	4	0	0

Table 4-3. Summary of PAH results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Total benzofluoranthenes	0 – 2	54/66	32 J	14,000	1,300	19	20	48	3	2
	2 – 4	41/59	17 J	8,400	930	19	20	40	0	2
	4 – 6	3/6	38 J	1,200	520	4.8	20	3	0	0
	6 – 10	7/13	20	4,400	850	19	20	6	0	1
	> 10	5/6	24 J	300	110	19	19	5	0	0
Chrysene	0 – 2	53/66	19 J	20,000	980	19	20	48	4	1
	2 – 4	36/58	16 J	4,700	810	19	21	31	2	3
	4 – 6	3/6	14 J	1,600	640	4.8	20	3	0	0
	6 – 10	8/13	15 J	3,800	720	19	20	7	0	1
	> 10	5/6	24	650	190	19	19	5	0	0
Dibenzo(a,h)anthracene	0 – 2	51/66	6.5 J	1,200	110	5.8	6.1	45	3	2
	2 – 4	31/59	6.8 J	760	94	5.8	6.2	29	2	1
	4 – 6	2/6	44 J	65	55	4.8	20	2	0	0
	6 – 10	5/13	11 J	430	110	4.8	76	4	1	0
	> 10	2/6	10 J	16	13	4.8	19	2	0	0
Dibenzofuran	0 – 2	32/66	9.8 J	2,600	240	19	53	28	2	2
	2 – 4	25/59	14 J	4,000	480	19	59	20	1	4
	4 – 6	1/6	200	200	na	4.8	58	1	0	0
	6 – 10	8/13	10	340 J	100	20	20	6	2	0
	> 10	6/6	7.8	5,700	1,200	na	na	3	1	2

Table 4-3. Summary of PAH results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Fluoranthene	0 – 2	54/66	12 J	50,000 J	1,900	19	20	48	4	2
	2 – 4	39/59	11 J	12,000	2,000	19	20	30	4	5
	4 – 6	4/6	11 J	4,200 J	1,200	4.8	19	3	1	0
	6 – 10	9/13	24	8,100	1,600	20	20	6	2	1
	> 10	6/6	23	5,400 J	1,200	na	na	5	1	0
Fluorene	0 – 2	44/66	10 J	6,100	350	19	53	40	1	3
	2 – 4	31/59	11 J	5,500	610	19	21	24	2	5
	4 – 6	1/6	460	460	na	4.8	58	0	1	0
	6 – 10	8/13	11	900	190	20	20	6	2	0
	> 10	6/6	9.7	6,100	1,300	na	na	3	1	2
Indeno(1,2,3-cd)pyrene	0 – 2	52/66	11 J	2,000	190	19	20	48	3	0
	2 – 4	34/59	9.9 J	850	150	19	21	33	0	2
	4 – 6	2/6	130	140	130	4.8	20	2	0	0
	6 – 10	7/13	6.7	860	170	19	20	6	0	1
	> 10	3/6	5.8	41	27	19	20	3	0	0
Naphthalene	0 – 2	43/66	10 J	10,000	360	19	53	42	0	1
	2 – 4	29/59	17 J	17,000	920	19	59	27	0	2
	4 – 6	1/6	180	180	na	4.8	58	1	0	0
	6 – 10	10/13	12	950	230	20	20	10	0	0
	> 10	6/6	15	21,000	3,900	na	na	4	0	2

Table 4-3. Summary of PAH results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Phenanthrene	0 – 2	53/66	16 J	28,000	1,200	19	20	49	2	2
	2 – 4	37/59	16 J	12,000	1,200	19	21	31	5	1
	4 – 6	3/6	11 J	2,000	720	4.8	20	2	1	0
	6 – 10	9/13	40	3,700	640	20	20	8	1	0
	> 10	6/6	21	20,000	4,100	na	na	3	2	1
Pyrene	0 – 2	55/66	12 J	38,000	2,000	19	20	51	2	1
	2 – 4	40/59	9.8 J	18,000	1,900	19	37	36	0	5
	4 – 6	4/6	11 J	3,300	1,000	4.8	19	4	0	0
	6 – 10	9/13	22	10,000	1,700	20	20	8	0	1
	> 10	6/6	88	4,500	1,000	na	na	6	0	0
Total HPAHs	0 – 2	57/66	9.8 J	156,000 J	7,900	19	20	50	3	2
	2 – 4	42/59	15 J	50,000	6,300	19	20	37	3	4
	4 – 6	4/6	22 J	12,300 J	3,800	4.8	19	4	0	0
	6 – 10	9/13	78	35,000	6,000	20	20	8	0	1
	> 10	6/6	280 J	11,770 J	2,700	na	na	5	1	0
Total LPAHs	0 – 2	53/66	16 J	52,000	2,600	19	20	50	0	3
	2 – 4	37/59	34 J	40,000	3,600	19	21	31	4	2
	4 – 6	3/6	11 J	4,300 J	1,500	4.8	20	3	0	0
	6 – 10	11/13	33 J	9,300 J	1,400	20	20	10	1	0
	> 10	6/6	79	61,000	12,000	na	na	3	1	2

Table 4-3. Summary of PAH results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
cPAH TEQ – mammal (half DL)	0 – 2	54/66	19 J	16,000	1,000	14	14	nc	nc	nc
	2 – 4	41/59	15 J	4,700	670	14	14	nc	nc	nc
	4 – 6	3/6	29 J	950	430	4.1	17	nc	nc	nc
	6 – 10	8/13	15	3,600	610	14	17	nc	nc	nc
	> 10	5/6	23 J	310	110	16	16	nc	nc	nc
Total PAHs	0 – 2	57/66	9.8 J	209,000 J	10,000	19	20	nc	nc	nc
	2 – 4	42/59	15 J	63,000	9,400	19	20	nc	nc	nc
	4 – 6	4/6	22 J	16,600 J	4,900	4.8	19	nc	nc	nc
	6 – 10	11/13	33 J	44,000 J	6,300	20	20	nc	nc	nc
	> 10	6/6	400 J	73,000 J	15,000	na	na	nc	nc	nc

[a] SMS criteria for PAHs are based on organic carbon normalized concentrations. Forty six samples representing all the sediment intervals had TOC values less than 0.5% and eleven samples representing all intervals except the >10ft interval had TOC values greater than 4%. For these samples PAH concentrations were compared to AET values on a dry weight basis because the TOC values were outside the TOC range for normalization.

CSL – cleanup screening level
dw – dry weight
HPAH – high-molecular-weight polycyclic aromatic hydrocarbon
J – estimated concentration
LPAH – low-molecular-weight polycyclic aromatic hydrocarbon
na – not applicable
nc – no criteria
nd – not detected
SMS – Washington State Sediment Management Standards
SQS – sediment quality standards

4.1.1.4 Phthalates

Table 4-4 summarizes the results for the 146 subsurface sediment samples that were collected from 63 locations in the EW and analyzed for phthalates. Data tables that list the phthalate results for each sample, including field replicate samples, are presented in Appendix A. Table 4-4 also presents the numbers of samples with detected concentrations within the following three categories: 1) ≤ SQS/SL, 2) > SQS/SL and ≤ CSL/ML, and 3) > CSL/ML. TOC concentrations were less than 0.5% or greater than 4.0% in 39 of the 146 samples analyzed for SVOCs. For these samples, dry-weight concentrations of the chemicals were compared with LAET and 2LAET values.

All six phthalates analyzed were detected in at least one sample. Bis(2-ethylhexyl) phthalate (BEHP), the most frequently detected phthalate compound, was detected in 110 of 146 samples (Map 4-8). The maximum concentration of BEHP was 5,800 µg/kg dw, which was detected in a sample collected at a 1.3-to-3.2-ft interval at location EW10-SC23. Detected concentrations of butyl benzyl phthalate and BEHP exceeded the SQS but not the CSL in 7 and 17 samples, respectively. Detected concentrations of BEHP exceeded the CSL in 9 samples.

Table 4-4. Summary of phthalate results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
BEHP	0 – 2	48/66	13 J	4,700	730	19	880	32	10	5
	2 – 4	42/59	13 J	5,800	670	23	470	34	5	4
	4 – 6	5/5	18 J	290	91	na	na	5	0	0
	6 – 10	11/12	15 J	1,800	230	91	91	9	2	0
	> 10	4/4	21	220	75	na	na	4	0	0
Butyl benzyl phthalate	0 – 2	40/66	14	130	44	14	91	38	2	0
	2 – 4	19/59	21	340	75	14	45	14	5	0
	4 – 6	1/5	22 J	22 J	na	14	16	1	0	0
	6 – 10	4/12	18 J	52 J	31	15	16	4	0	0
	> 10	0/4	nd	nd	nd	15	15	0	0	0
Diethyl phthalate	0 – 2	5/66	10 J	22	16	19	91	5	0	0
	2 – 4	3/59	16 J	86	41	19	150	3	0	0
	4 – 6	0/5	nd	nd	nd	14	58	0	0	0
	6 – 10	1/12	20	20	na	15	20	1	0	0
	> 10	1/4	11 J	11 J	na	15	20	1	0	0
Dimethyl phthalate	0 – 2	10/66	10 J	500	80	14	91	10	0	0
	2 – 4	3/59	15	40	24	14	150	3	0	0
	4 – 6	0/5	nd	nd	nd	14	16	0	0	0
	6 – 10	0/12	nd	nd	nd	15	16	0	0	0
	> 10	0/4	nd	nd	nd	15	15	0	0	0

Table 4-4. Summary of phthalate results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Di-n-butyl phthalate	0 – 2	15/66	10 J	180	41	19	88	14	0	0
	2 – 4	11/59	10 J	88	30	19	150	12	0	0
	4 – 6	0/5	nd	nd	nd	19	58	0	0	0
	6 – 10	1/12	180	180	na	19	420	1	0	0
	> 10	0/4	nd	nd	nd	19	20	0	0	0
Di-n-octyl phthalate	0 – 2	0/66	nd	nd	nd	19	91	0	0	0
	2 – 4	1/59	31	31	na	19	150	0	0	0
	4 – 6	1/5	86	86	na	19	58	1	0	0
	6 – 10	0/12	nd	nd	nd	19	420	0	0	0
	> 10	0/4	nd	nd	nd	19	20	0	0	0

[a] SMS criteria for phthalates are based on organic carbon normalized concentrations. Forty six samples representing all the sediment intervals had TOC values less than 0.5% and eleven samples representing all intervals except the >10ft interval had TOC values greater than 4%. For these samples phthalate concentrations were compared to AET values on a dry weight basis because the TOC values were outside the TOC range for normalization.

BEHP – bis(2-ethylhexyl) phthalate
CSL – cleanup screening level
DMMP – Dredged Material Management Program
dw – dry weight
J – estimated concentration
ML – maximum level
na – not applicable
nc – no criteria
nd – not detected
SL – screening level
SMS – Washington State Sediment Management Standards
SQS – sediment quality standards

4.1.1.5 Other SVOCs

Table 4-5 summarizes results for 146 subsurface sediment samples from 63 locations in the EW that were analyzed for SVOCs other than PAHs and phthalates. Complete SVOC results for all samples are presented in Appendix A. Table 4-5 also presents the numbers of samples with detected concentrations within the following three categories: 1) ≤ SQS/SL, 2) > SQS/SL and ≤ CSL/ML, and 3) > CSL/ML. TOC concentrations were less than 0.5% or greater than 4.0% in 39 of the 146 samples analyzed for SVOCs. For these samples, dry-weight concentrations of the chemicals were compared with LAET and 2LAET values.

Fifteen other SVOCs were detected at least one sample. Detected concentrations of 1,4-dichlorobenzene exceeded the SQS in one sample and exceeded the CSL in two samples. Detected concentrations of 1,4-dichlorobenzene exceeded the CSL in six samples. Detected concentrations of 2,4-dimethylphenol exceeded the CSL in five samples. Detected concentrations of 2-methylphenol exceeded the CSL in one sample. Detected concentrations of n-nitrosodiphenylamine exceeded the CSL in one sample. The results for other SVOCs are provided in Map 4-9.

Table 4-5. Summary of other SVOC results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
1,2,4-Trichlorobenzene	0 – 2	4/66	6.0	20	12	5.8	61	3[a]	1[a]	0[a]
	2 – 4	4/59	7.4	62	33	5.8	60	2[a]	0[a]	2[a]
	4 – 6	0/5	nd	nd	nd	5.8	6.2	0[a]	0[a]	0[a]
	6 – 10	0/12	nd	nd	nd	5.9	14	0[a]	0[a]	0[a]
	> 10	0/4	nd	nd	nd	5.9	6.0	0[a]	0[a]	0[a]
1,2-Dichlorobenzene	0 – 2	0/66	nd	nd	nd	5.8	61	0[a]	0[a]	0[a]
	2 – 4	1/59	19 J	19 J	na	5.8	60	1[a]	0[a]	0[a]
	4 – 6	0/5	nd	nd	nd	5.8	6.2	0[a]	0[a]	0[a]
	6 – 10	0/12	nd	nd	nd	5.9	6.2	0[a]	0[a]	0[a]
	> 10	0/4	nd	nd	nd	5.9	6.0	0[a]	0[a]	0[a]
1,3-Dichlorobenzene	0 – 2	0/66	nd	nd	nd	19	91	nc	nc	nc
	2 – 4	1/59	52	52	na	19	150	nc	nc	nc
	4 – 6	0/5	nd	nd	nd	19	58	nc	nc	nc
	6 – 10	0/12	nd	nd	nd	19	420	nc	nc	nc
	> 10	0/4	nd	nd	nd	19	20	nc	nc	nc
1,4-Dichlorobenzene	0 – 2	38/66	5.8	310	39	5.8	61	32[a]	3[a]	3[a]
	2 – 4	14/59	8.3	380	77	5.8	60	11[a]	0[a]	3[a]
	4 – 6	0/5	nd	nd	nd	5.8	6.2	0[a]	0[a]	0[a]
	6 – 10	2/12	8.5	17	13	5.9	6.2	2[a]	0[a]	0[a]
	> 10	0/4	nd	nd	nd	5.9	6.0	0[a]	0[a]	0[a]

Table 4-5. Summary of other SVOC results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
2,4-Dimethylphenol	0 – 2	6/66	6.1 J	130	47	5.8	61	3	0	3
	2 – 4	4/59	9.2	71	35	5.8	60	2	0	2
	4 – 6	0/5	nd	nd	nd	5.8	6.2	0	0	0
	6 – 10	2/12	6.0	8.7	7.4	5.9	6.2	2	0	0
	> 10	0/4	nd	nd	nd	5.9	19	0	0	0
2-Methylphenol	0 – 2	3/66	8.5	82	35	5.8	61	2	0	1
	2 – 4	2/59	7.4	22 J	15	5.8	60	2	0	0
	4 – 6	0/5	nd	nd	nd	5.8	6.2	0	0	0
	6 – 10	0/12	nd	nd	nd	5.9	6.2	0	0	0
	> 10	2/4	9.5	24	17	6.0	6.0	2	0	0
4-Methylphenol	0 – 2	20/66	11 J	130	29	19	91	20	0	0
	2 – 4	9/59	11 J	280	63	19	150	9	0	0
	4 – 6	0/5	nd	nd	nd	19	58	0	0	0
	6 – 10	0/12	nd	nd	nd	19	420	0	0	0
	> 10	0/4	nd	nd	nd	19	20	0	0	0
4-Nitroaniline	0 – 2	0/65	nd	nd	nd	96	450	nc	nc	nc
	2 – 4	0/59	nd	nd	nd	95	750	nc	nc	nc
	4 – 6	0/5	nd	nd	nd	97	290	nc	nc	nc
	6 – 10	1/12	140 J	140 J	na	96	2,100	nc	nc	nc
	> 10	0/4	nd	nd	nd	96	98	nc	nc	nc

Table 4-5. Summary of other SVOC results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Benzoic acid	0 – 2	1/66	65 J	65 J	na	190	910	1	0	0
	2 – 4	2/59	47 J	71 J	59	190	1,500	2	0	0
	4 – 6	0/5	nd	nd	nd	190	580	0	0	0
	6 – 10	0/12	nd	nd	nd	190	4,200	0	0	0
	> 10	0/4	nd	nd	nd	190	200	0	0	0
Carbazole	0 – 2	37/66	11 J	2,500	180	19	53	nc	nc	nc
	2 – 4	15/59	12 J	460	130	19	120	nc	nc	nc
	4 – 6	1/5	100	100	na	19	58	nc	nc	nc
	6 – 10	6/12	19 J	280 J	120	19	76	nc	nc	nc
	> 10	3/4	120	750	370	20	20	nc	nc	nc
Hexachlorobenzene	0 – 2	0/66	nd	nd	nd	1.4	61	0[a]	0[a]	0[a]
	2 – 4	0/59	nd	nd	nd	0.98	60	0[a]	0[a]	0[a]
	4 – 6	1/5	0.65	0.65	na	5.8	6.2	1 [a]	0 [a]	0 [a]
	6 – 10	0/12	nd	nd	nd	0.074	6.2	0[a]	0[a]	0[a]
	> 10	0/4	nd	nd	nd	5.9	6.0	0[a]	0[a]	0[a]
n-Nitroso-di-n-propylamine	0 – 2	0/66	nd	nd	nd	29	310	nc	nc	nc
	2 – 4	1/59	350	350	350	29	190	nc	nc	nc
	4 – 6	1/5	49	49	na	29	31	nc	nc	nc
	6 – 10	3/12	34 J	59 J	46	29	31	nc	nc	nc
	> 10	0/4	nd	nd	nd	29	30	nc	nc	nc

Table 4-5. Summary of other SVOC results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
n-Nitrosodiphenylamine	0 – 2	1/66	12	12	na	5.8	91	1 [a]	0 [a]	0 [a]
	2 – 4	0/59	nd	nd	nd	5.8	60	0[a]	0[a]	0[a]
	4 – 6	0/5	nd	nd	nd	5.8	16	0[a]	0[a]	0[a]
	6 – 10	0/12	nd	nd	nd	5.9	46	0[a]	0[a]	0[a]
	> 10	1/4	160	160	na	6.0	20	0 [a]	0 [a]	1 [a]
Pentachlorophenol	0 – 2	0/66	nd	nd	nd	29	310	0	0	0
	2 – 4	2/59	52	81	67	29	300	2	0	0
	4 – 6	0/5	nd	nd	nd	29	31	0	0	0
	6 – 10	0/12	nd	nd	nd	29	31	0	0	0
	> 10	0/4	nd	nd	nd	29	30	0	0	0
Phenol	0 – 2	6/66	16 J	100	37	19	91	6	0	0
	2 – 4	0/59	nd	nd	nd	19	150	0	0	0
	4 – 6	0/5	nd	nd	nd	19	58	0	0	0
	6 – 10	2/12	29	33	31	19	420	2	0	0
	> 10	0/4	nd	nd	nd	19	20	0	0	0

[a] SMS criteria for these SVOCs are based on organic carbon normalized concentrations. Forty six samples representing all the sediment intervals had TOC values less than 0.5% and eleven samples representing all intervals except the >10ft interval had TOC values greater than 4%. For these samples SVOC concentrations were compared to AET values on a dry weight basis because the TOC values were outside the TOC range for normalization.

CSL – cleanup screening level
DMMP – Dredged Material Management Program
dw – dry weight
J – estimated concentration
na – not applicable
nc – no criteria
nd – not detected
SL – screening level
SMS – Washington State Sediment Management Standards
SQS – sediment quality standards

4.1.1.6 PCB Aroclors

Table 4-6 summarizes the results for 165 subsurface sediment samples that were collected from 63 locations in the EW and analyzed for PCB Aroclors. Results are presented for both individual Aroclors and total PCBs. Data tables that list PCB Aroclor and total PCB results for all samples are presented in Appendix A.

Table 4-6 also presents the numbers of samples with detected total PCB concentrations within the following three categories: 1) ≤ SQS, 2) > SQS and ≤ CSL, and 3) > CSL. TOC concentrations were < 0.5 or > 4.0% in 46 of the 165 samples analyzed for PCBs; for these samples, the dry-weight concentrations of PCBs were compared with LAET and 2LAET values. Map 4-10 shows exceedances of SMS criteria for total PCBs for each of the subsurface locations by depth.

Four of the seven Aroclors were detected in at least one sediment sample. The most frequently detected Aroclors were 1254 and 1260 (detected in 99 and 105 of the 165 samples, respectively), consistent with surface sediment data. In 59 samples, no PCB Aroclors were detected. The maximum total PCB concentration (17,600 µg/kg dw) was detected in the 1.3-to-3.2-ft interval at location EW10-SC23. Total PCBs exceeded the SQS but not the CSL in 39 of the 165 samples and exceeded the CSL in 43 of the 165 samples.

Table 4-6. Summary of PCB results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Aroclor-1242	0 – 2	11/66	44	430 J	190	3.8	390	nc	nc	nc
	2 – 4	5/59	4.7	840	270	3.8	600	nc	nc	nc
	4 – 6	0/16	nd	nd	nd	3.8	20	nc	nc	nc
	6 – 10	0/19	nd	nd	nd	3.8	49	nc	nc	nc
	> 10	0/5	nd	nd	nd	3.9	20	nc	nc	nc
Aroclor-1248	0 – 2	32/66	9.9	2,100	420	3.8	490	nc	nc	nc
	2 – 4	24/59	6.4 J	3,200	600	3.8	790	nc	nc	nc
	4 – 6	3/16	53	120	81	3.8	48	nc	nc	nc
	6 – 10	2/19	220	340	280	3.8	170	nc	nc	nc
	> 10	0/5	nd	nd	nd	3.9	20	nc	nc	nc
Aroclor-1254	0 – 2	53/66	6.7	4,200	590	3.8	4.0	nc	nc	nc
	2 – 4	38/59	6.7	6,500	900	3.8	4.0	nc	nc	nc
	4 – 6	6/16	4.5	150	73	3.8	77	nc	nc	nc
	6 – 10	2/19	310	620	460	3.8	1,200	nc	nc	nc
	> 10	0/5	nd	nd	nd	3.9	20	nc	nc	nc
Aroclor-1260	0 – 2	53/66	4.9	5,800	650	3.8	4.0	nc	nc	nc
	2 – 4	39/59	5.5	7,900	850	3.8	38	nc	nc	nc
	4 – 6	10/16	4.8	280	95	3.8	3.9	nc	nc	nc
	6 – 10	3/19	170	950	630	3.8	20	nc	nc	nc
	> 10	0/5	nd	nd	nd	3.9	20	nc	nc	nc

Table 4-6. Summary of PCB results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded SMS Criteria[a]		
			Min	Max	Mean	Min	Max	≤ SQS	> SQS and ≤ CSL	> CSL
Total PCBs	0 – 2	53/66	11.6	10,000	1,500	3.8	4.0	3	27	23
	2 – 4	40/59	5.5	17,600	2,100	3.8	6.0	15	7	18
	4 – 6	10/16	9.8	430	160	3.8	3.9	6	4	0
	6 – 10	3/19	700	1,720	1,100	3.8	20	0	1	2
	> 10	0/5	nd	nd	nd	3.9	29	0	0	0

[a] SMS criteria for these SVOCs are based on organic carbon normalized concentrations. Forty six samples representing all the sediment intervals had TOC values less than 0.5% and eleven samples representing all intervals except the >10ft interval had TOC values greater than 4%. For these samples SVOC concentrations were compared to AET values on a dry weight basis because the TOC values were outside the TOC range for normalization.

CSL – cleanup screening level

dw – dry weight

J – estimated concentration

N – tentative identification

nc – no criteria

nd – not detected

PCB – polychlorinated biphenyl

SMS – Washington State Sediment Management Standards

SQS – sediment quality standards

4.1.1.7 Organochlorine pesticides

Chemical analyses were conducted for organochlorine pesticides in 12 subsurface sediment samples that were collected from five locations in the EW. Ten organochlorine pesticides were detected. Ten samples from the 0-to-2-ft and 2-to-4-ft sampling intervals were initially analyzed by EPA using Method 8081. DDT isomers and alpha-chlordane were detected in these intervals. This method is susceptible to analytical interference associated with the presence of PCBs which results in a positive bias in results for organochlorine pesticides. Two additional samples were submitted for GC/MS/MS analysis for pesticides. This analysis is not subject to interference from PCBs. Three DDT isomers (2,4′-dichlorodiphenyldichloroethane [DDD], 4,4′-DDD, and 4,4′-dichlorodiphenyldichloroethylene [DDE]) were detected in at least one of these samples. Alpha-chlordane, and cis- and trans-nonachlor were also detected. The results presented in Table 4-7 are the results of the Method 8081 analysis except the results identified as GC/MS/MS results

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Table 4-7. Summary of pesticide results for EW subsurface sediment samples

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded DMMP Guidelines		
			Min	Max	Mean	Min	Max	≤ SL	> SL and ≤ ML	> ML
2,4′-DDD	0 – 2	1/5	64	64	na	2.7	22	nc	nc	nc
	2 – 4	1/5	240	240	na	2.0	40	nc	nc	nc
	4 – 6	1/1	2.1[a]	2.1[a]	na	na	na	nc	nc	nc
	6 – 10	1/1	0.011 J[a]	0.011 J[a]	na	na	na	nc	nc	nc
2,4′-DDE	0 – 2	0/5	nd	nd	nd	2.7	30	nc	nc	nc
	2 – 4	1/5	120 J	120 J	na	2.0	40	nc	nc	nc
	4 – 6	0/1	nd	nd	nd	0.23 [a]	0.23 [a]	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.035 [a]	0.035 [a]	nc	nc	nc
4,4′-DDD	0 – 2	1/5	240	240		2.7	22	nc	nc	nc
	2 – 4	2/5	5.4	1,000	500	2.0	40	nc	nc	nc
	4 – 6	1/1	7.5 J[a]	7.5 J[a]	na	na	na	nc	nc	nc
	6 – 10	1/1	0.060[a]	0.060[a]	na	na	na	nc	nc	nc
4,4′-DDE	0 – 2	0/5	nd	nd	nd	2.7	30	nc	nc	nc
	2 – 4	1/5	100 J	100 J	na	2.0	64	nc	nc	nc
	4 – 6	1/1	5.3[a]	5.3[a]	na	na	na	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.035 [a]	0.035 [a]	nc	nc	nc
Total DDTs	0 – 2	1/5	300	300	na	13	85	0	0	1
	2 – 4	3/5	5.4	1,400 J	500	2.0	2.0	1	0	2
	4 – 6	1/1	14.9 J [a]	14.9 J [a]	na	na	na	0	1	0
	6 – 10	1/1	0.07 J [a]	0.07 J [a]	na	na	na	1	0	0
alpha-Chlordane	0 – 2	1/5	33	33	33	1.4	11	nc	nc	nc
	2 – 4	0/5	nd	nd	nd	0.98	32	nc	nc	nc
	4 – 6	1/1	0.54 [a]	0.54 [a]	0.54 [a]	na	na	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.035 [a]	0.035 [a]	nc	nc	nc

Table 4-7. Summary of pesticide results for EW subsurface sediment samples (cont.)

Chemical	Sampling Interval (ft)	Detection Frequency	Detected Concentrations (µg /kg dw)			Reporting Limits (µg/kg dw)		No. of Detected Concentrations that Exceeded DMMP Guidelines		
			Min	Max	Mean	Min	Max	≤ SL	> SL and ≤ ML	> ML
beta-Chlordane[b]	4 – 6	1/1	0.95 [a]	0.95 [a]	na	na	na	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.035 [a]	0.035 [a]	nc	nc	nc
Total chlordane	0 – 2	1/5	33	33	na	2.7	22	nc	nc	nc
	2 – 4	0/5	nd	nd	nd	2.0	110	nc	nc	nc
	4 – 6	1/1	1.87 J [a]	1.87 J [a]	na	na	na	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.14 [a]	0.14 [a]	nc	nc	nc
cis-Nonachlor	0 – 2	0/5	nd	nd	nd	2.7	30	nc	nc	nc
	2 – 4	0/5	nd	nd	nd	2.0	64	nc	nc	nc
	4 – 6	1/1	0.11 J [a]	0.11 J [a]	na	na	na	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.14 [a]	0.14 [a]	nc	nc	nc
trans-Nonachlor	0 – 2	0/5	nd	nd	nd	2.7	30	nc	nc	nc
	2 – 4	0/5	nd	nd	nd	2.0	64	nc	nc	nc
	4 – 6	1/1	0.27 [a]	0.27 [a]	na	na	na	nc	nc	nc
	6 – 10	0/1	nd	nd	nd	0.035 [a]	0.035 [a]	nc	nc	nc

[a] Results of GC/MS/MS analysis

[b] Beta-chlordane was not a target chemical in the original EPA 8270 analysis and was only analyzed in the samples submitted for GC/MS/MS analysis.

CSL – cleanup screening level
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethylene
DDT – dichlorodiphenyltrichloroethane
DMMP – Dredged Material Management Program
dw – dry weight
J – estimated concentration
na – not applicable
nc – no criteria
nd – not detected
SL – screening level

4.1.1.8 Grain size, TOC, and total solids

Table 4-8 summarizes grain size, TOC, and total solids results for subsurface sediment samples that were collected from 63 locations in the EW. Samples from depth intervals greater than 4 ft were not analyzed for grain size because these samples were frozen, and freezing affects grain size. Data tables that provide the results for each sample, including field replicates, are presented in Appendix A.

Table 4-8. Summary of grain size and conventional results for EW subsurface chemistry sediment

Chemical	Sampling Interval (ft)	Number of Samples	Unit	Minimum	Maximum	Mean
Grain Size						
Total gravel	0 – 2	66	% dw	0.1	35.6	5
	2 – 4	59	% dw	0.1	60.1	3
	4 – 6	1	% dw	14.8	14.8	na
	> 10	3	% dw	1.3	7.7	4.5
Total sand	0 – 2	66	% dw	3.8	89.8	41
	2 – 4	59	% dw	10.4	95.9	47
	4 – 6	1	% dw	17.1	17.1	na
	> 10	3	% dw	23.5	60.3	47.0
Total silt	0 – 2	66	% dw	7.4	68.5	37
	2 – 4	56	% dw	4	64.3	40
	4 – 6	1	% dw	37.8	37.8	na
	> 10	3	% dw	24.5	59.2	37.9
Total clay	0 – 2	66	% dw	2.2	37.0	19
	2 – 4	56	% dw	1.9	39.9	17
	4 – 6	1	% dw	30.2	30.2	na
	> 10	3	% dw	8.3	17.4	12
Total fines (percent silt+clay)	0 – 2	66	% dw	9.6	96.0	56
	2 – 4	56	% dw	6.0	88.9	50
	4 – 6	1	% dw	68.0	68.0	na
	> 10	3	% dw	35.2	76.6	50.1
Conventionals						
TOC	0 – 2	68	% dw	0.323	5.38	1.65
	2 – 4	61	% dw	0.093	7.40	1.6
	4 – 6	19	% dw	0.098	4.32	1.0
	6 – 10	37	% dw	0.165	4.39	1.12
	> 10	10	% dw	0.489	1.56	0.828

Chemical	Sampling Interval (ft)	Number of Samples	Unit	Minimum	Maximum	Mean
Total solids	0 – 2	68	% ww	40.80	79.80	63.66
	2 – 4	61	% ww	40.70	90.30	67.15
	4 – 6	19	% ww	47.87	89.70	72.3
	6 – 10	37	% ww	50.73	84.00	71.5
	> 10	10	% ww	68.63	77.00	73.55

dw – dry weight
EW – East Waterway
na- not applicable
TOC – total organic carbon
ww – wet weight

Percent fines in subsurface sediment samples ranged from 6.0 to 96%, with mean percentages in the various depth intervals ranging from 50 to 68%. TOC ranged from 0.074 to 6.88%, with mean percentages in depth intervals ranging from 0.093 to 7.40%. Forty-six samples had TOC of less than 0.5%, and eleven samples had TOC greater than 4.0%. Total solids ranged from 37.40 to 85.10%, and mean total solids ranged from 47.87 to 90.30%.

4.1.2 Summary of results by sampling location

This section summarizes the analytical results for each sampling location. Table 4-9 summarizes the detected concentrations of chemicals that exceeded SMS criteria or DMMP guidelines for each sampling location.

Some of the SMS criteria are based on organic carbon (OC)-normalized concentrations. If the TOC content of a sediment sample is < 0.5%, then Washington State Department of Ecology guidance does not recommend OC-normalization (Ecology 1995). In addition, OC-normalization is not considered appropriate if the TOC is > 4%. In these cases, the dry-weight concentration was compared with the lowest apparent effects threshold (LAET) and second lowest apparent effects threshold (2LAET) (PTI 1988), which are analogous to the SQS and the CSL, respectively. A total of 37 samples analyzed for chemicals with SMS criteria had TOC concentrations < 0.5%, and 10 samples had TOC concentration > 4.0%. Samples and analytes that were evaluated based on comparison to the AET values are indicated in Table 4-9.

Exceedance factors were calculated as the ratio of the sample concentration to the SMS or DMMP value. Exceedance factors greater than one are associated with sample concentrations above the SMS or DMMP value. Of the 65 locations, 50 had at least one sample with an exceedance of an SMS criterion or DMMP guideline. There were no exceedances at 15 locations (EW10-SC20, EW10-SC25, EW10-SC34, EW10-SC38, EW10-SC41, EW10-SC44, EW10-SC45, EW10-SC46, EW10-SC51, EW10-SC56, EW10-SC59, EW10-SC62, EW10-SC63, EW10-SC100, and EW10-SC101). The locations with the greatest number of detected chemical exceedances were EW10-SB01 (51 exceedances), EW10-SC54

(44 exceedances, EW10-SC29 (37exceedances), EW10-SC09 (31 exceedances), and EW10-SC32 (27 exceedances).

As discussed in Section 3.1, three rounds of analyses were conducted to characterize sediment at depth. Samples at each location were analyzed as necessary until a depth interval with no exceedances of SMS criteria or DMMP guidelines was reached; any remaining deeper samples were archived. As presented in Table 4-9, EW10-SC54 was the only core in which there was an exceedance in the deepest core interval. It is unknown whether there are exceedances below the depth of the core at this sampling location.

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SB01								
0 – 2	0 – 2	SMS chemicals	cadmium	45.2	mg/kg dw	**8.9**	**6.7**	no
			lead	580	mg/kg dw	**1.3**	**1.1**	no
			mercury	2.48	mg/kg dw	**6.0**	**4.2**	no
			silver	7	mg/kg dw	**1.1**	**1.1**	no
			zinc	6,850	mg/kg dw	**17**	**7.1**	no
			acenaphthene	390	mg/kg OC	**24**	**6.8**	no
			anthracene	240	mg/kg OC	**1.1**	0.20	no
			benzo(a)anthracene	610	mg/kg OC	**5.5**	**2.3**	no
			benzo(a)pyrene	430	mg/kg OC	**4.3**	**2.0**	no
			benzo(g,h,i)perylene	72	mg/kg OC	**2.3**	0.92	no
			total benzofluoranthenes	500	mg/kg OC	**2.2**	**1.1**	no
			chrysene	720	mg/kg OC	**6.5**	**1.6**	no
			dibenzo(a,h)anthracene	43	mg/kg OC	**3.6**	**1.3**	no
			dibenzofuran	86	mg/kg OC	**5.7**	**1.5**	no
			fluoranthene	1,800 J	mg/kg OC	**11**	**1.5**	no
			fluorene	220	mg/kg OC	**9.6**	**2.8**	no
			indeno(1,2,3-cd)pyrene	72	mg/kg OC	**2.1**	0.82	no
			phenanthrene	1,000	mg/kg OC	**10**	**2.1**	no
			pyrene	1,400	mg/kg OC	**1.4**	**1.0**	no
			total HPAHs	5,590 J	mg/kg OC	**5.8**	**1.1**	no
			total LPAHs	1,900	mg/kg OC	**5.1**	**2.4**	no
			BEHP	110	mg/kg OC	**2.3**	**1.4**	no
			total PCBs	270	mg/kg OC	**23**	**4.2**	no

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SB01								
3.5 – 5.2	3.5 – 5.2	SMS chemicals	mercury	1.07	mg/kg dw	**2.6**	**1.8**	no
			zinc	597	mg/kg dw	**1.5**	0.62	no
			2-methylnaphthalene	110	mg/kg OC	**2.9**	**1.7**	no
			acenaphthene	130	mg/kg OC	**8.1**	**2.3**	no
			dibenzofuran	93	mg/kg OC	**6.2**	**1.6**	no
			fluoranthene	370 J	mg/kg OC	**2.3**	0.31	no
			fluorene	120	mg/kg OC	**5.2**	**1.5**	no
			naphthalene	300	mg/kg OC	**3.0**	**1.8**	no
			phenanthrene	480	mg/kg OC	**4.8**	**1.0**	no
			total HPAHs	1,040 J	mg/kg OC	**1.1**	0.20	no
			total LPAHs	1,110	mg/kg OC	**3.0**	**1.4**	no
12.5 – 14.5	12.5 – 14.5	SMS chemicals	2-methylnaphthalene	560	mg/kg OC	**15**	**8.8**	no
			acenaphthene	1,300	mg/kg OC	**81**	**23**	no
			anthracene	520	mg/kg OC	**2.4**	0.43	no
			dibenzofuran	760	mg/kg OC	**51**	**13**	no
			fluoranthene	720 J	mg/kg OC	**4.5**	0.60	no
			fluorene	820	mg/kg OC	**36**	**10**	no
			naphthalene	2,800	mg/kg OC	**28**	**16**	no
			phenanthrene	2,700	mg/kg OC	**27**	**5.6**	no
			total HPAHs	1,580 J	mg/kg OC	**1.6**	0.30	no
			total LPAHs	8,200	mg/kg OC	**22**	**11**	no
			n-nitrosodiphenylamine	21	mg/kg OC	**1.9**	**1.9**	no
16 – 18	16 – 18	SMS chemicals	acenaphthene	190	mg/kg OC	**12**	**3.3**	no
			dibenzofuran	99	mg/kg OC	**6.6**	**1.7**	no
			fluorene	95	mg/kg OC	**4.1**	**1.2**	no
			naphthalene	240	mg/kg OC	**2.4**	**1.4**	no
			phenanthrene	280	mg/kg OC	**2.8**	0.58	no
			total LPAHs	840	mg/kg OC	**2.3**	**1.1**	no
24.5 – 26.5	24.5 – 26.5	PAHs	acenapthene	1,000	µg/kg dw	**2.0**	**1.4**	yes

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SB02								
0 – 2	0 – 2	SMS chemicals	cadmium	7.1	mg/kg dw	**1.4**	**1.1**	no
			mercury	1.20	mg/kg dw	**2.9**	**2.0**	no
			zinc	848	mg/kg dw	**2.1**	0.88	no
			2-methylnaphthalene	100	mg/kg OC	**2.6**	**1.6**	no
			acenaphthene	170	mg/kg OC	**11**	**3.0**	no
			dibenzofuran	99	mg/kg OC	**6.6**	**1.7**	no
			fluoranthene	270 J	mg/kg OC	**1.7**	0.23	no
			fluorene	130	mg/kg OC	**5.7**	**1.6**	no
			naphthalene	380	mg/kg OC	**3.8**	**2.2**	no
			phenanthrene	320	mg/kg OC	**3.2**	0.67	no
			total LPAHs	1,100	mg/kg OC	**3.0**	**1.4**	no
			BEHP	61	mg/kg OC	**1.3**	0.78	no
			2,4-dimethylphenol	80	µg/kg dw	**2.8**	**2.8**	no
			total PCBs	120	mg/kg OC	**10**	**1.8**	no
4 – 6	4 – 6	SMS chemicals	lead	1,450	mg/kg dw	**3.2**	**2.7**	no
			mercury	1.06	mg/kg dw	**2.6**	**1.8**	no
			acenaphthene	49	mg/kg OC	**3.1**	0.86	no
			fluoranthene	300 J	mg/kg OC	**1.9**	0.25	no
			fluorene	32	mg/kg OC	**1.4**	0.41	no
			phenanthrene	140	mg/kg OC	**1.4**	0.29	no
12 – 14	12 – 14	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC03								
0 – 2	0 – 2.7	SMS chemicals	mercury	0.52	mg/kg dw	**1.3**	0.88	no
			total PCBs	48.5 J	mg/kg OC	**4.0**	0.75	no
2 – 4	2.7 – 5.7	SMS chemicals	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC04								
0 – 2	0 – 2.7	SMS chemicals	total PCBs	130 J	mg/kg OC	**11**	**2.0**	no
2 – 4	2.7 – 5.4	SMS chemicals	acenaphthene	19 J	mg/kg OC	**1.2**	0.33	no
			fluorene	26 J	mg/kg OC	**1.1**	0.33	no
			phenanthrene	130 J	mg/kg OC	**1.3**	0.27	no
4 – 4.5	5.4 – 6.1	SVOCs	na	na	na	ne	ne	ne
EW10-SC05								
0 – 2	0 – 1.9	SMS chemicals	total PCBs	12.4 JN	mg/kg OC	**1.0**	0.19	no
2 – 4	1.9 – 4.2	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC06								
0 – 2	0 – 2.1	SMS chemicals and organometals	mercury	0.90	mg/kg dw	**2.2**	**1.5**	no
			total PCBs	70	mg/kg OC	**5.8**	**1.1**	no
2 – 4	2.1 – 4.3	SMS chemicals and organometals	mercury	0.80	mg/kg dw	**2.0**	**1.4**	no
4 – 6	4.3 – 6.8	mercury	mercury	0.71	mg/kg dw	**1.7**	**1.2**	no
6 – 7.4	6.8 – 8.7	mercury	na	na	na	ne	ne	ne
7.4 – 10	8.7 – 12.3	mercury	na	na	na	ne	ne	ne
EW10-SC07B								
0 – 2.3	0 – 2.4	SMS chemicals	total PCBs	45 J	mg/kg OC	**3.8**	0.69	no
2.3 – 4	2.4 – 4.2	SMS chemicals	total PCBs	14	mg/kg OC	**1.2**	0.22	no
4 – 6	4.2 – 6.2	PCBs	na	na	na	ne	ne	ne
EW10-SC08								
0 – 2	0 – 2.5	SMS chemicals	mercury	0.49	mg/kg dw	**1.2**	0.83	no
			total PCBs	96.6	mg/kg OC	**8.0**	**1.5**	no
2 – 4	2.5 – 4.3	SMS chemicals	cadmium	5.6	mg/kg dw	**1.1**	0.84	no
			mercury	1.00	mg/kg dw	**2.4**	**1.7**	no
			BEHP	140	mg/kg OC	**3.0**	**1.8**	no
			total PCBs	300	mg/kg OC	**25**	**4.6**	no
6 – 8	6.6 – 9.2	SMS chemicals	mercury	0.43	mg/kg dw	**1.0**	0.73	no
8 – 9.4	9.2 – 11	mercury	na	na	na	ne	ne	ne
9.4 – 11	11 – 12.9	mercury	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC09								
0 – 2	0 – 2.1	SMS chemicals	mercury	0.51 J	mg/kg dw	**1.2**	0.86	no
			total PCBs	29.3	mg/kg OC	**2.4**	0.45	no
2 – 4	2.1 – 4.3	SMS chemicals	mercury	0.89 J	mg/kg dw	**2.2**	**1.5**	no
			anthracene	1,400	µg/kg dw	**1.5**	0.32	yes
			benzo(a)anthracene	2,400	µg/kg dw	**1.8**	**1.5**	yes
			benzo(a)pyrene	2,300	µg/kg dw	**1.4**	0.77	yes
			chrysene	3,500	µg/kg dw	**2.5**	**1.3**	yes
			dibenzo(a,h)anthracene	240 J	µg/kg dw	**1.0**	0.44	yes
			fluoranthene	3,000	µg/kg dw	**1.8**	**1.2**	yes
			pyrene	4,300 J	µg/kg dw	**1.7**	**1.3**	yes
			total HPAHs	19,400 J	µg/kg dw	**1.6**	**1.1**	yes
			butyl benzyl phthalate	76	µg/kg dw	**1.2**	0.084	yes
			total PCBs	1,900	µg/kg dw	**15**	**1.9**	yes

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC09								
6 – 7.2	6.4 – 7.7	mercury, SVOCs and PCBs	mercury	0.74	mg/kg dw	**1.8**	**1.3**	no
			acenaphthene	770	µg/kg dw	**1.5**	**1.1**	yes
			anthracene	3,000	µg/kg dw	**3.1**	0.68	yes
			benzo(a)anthracene	3,600	µg/kg dw	**2.8**	**2.3**	yes
			benzo(a)pyrene	2,500	µg/kg dw	**1.6**	0.83	yes
			benzo(g,h,i)perylene	880	µg/kg dw	**1.3**	**1.2**	yes
			total benzofluoranthenes	4,400	µg/kg dw	**1.4**	**1.2**	yes
			chrysene	3,800	µg/kg dw	**2.7**	**1.4**	yes
			dibenzo(a,h)anthracene	430	µg/kg dw	**1.9**	0.80	yes
			fluoranthene	8,100	µg/kg dw	**4.8**	**3.2**	yes
			fluorene	900	µg/kg dw	**1.7**	0.90	yes
			indeno(1,2,3-cd)pyrene	860	µg/kg dw	**1.4**	**1.2**	yes
			phenanthrene	3,700	µg/kg dw	**2.5**	0.69	yes
			pyrene	10,000	µg/kg dw	**3.8**	**3.0**	yes
			total HPAHs	35,000	µg/kg dw	**2.9**	**2.1**	yes
			total LPAHs	9,300 J	µg/kg dw	**1.8**	0.72	yes
			BEHP	1,800	µg/kg dw	**1.4**	0.95	yes
			total PCBs	1,720	µg/kg dw	**13**	**1.7**	yes
7.2 – 9.2	7.7 – 9.8	mercury, SVOCs and PCBs	na	na	na	ne	ne	ne
9.2 – 11.2	9.8 – 12.0	mercury	na	na	na	ne	ne	ne
EW10-SC10								
0 – 2.4	0 – 2.6	SMS chemicals and organometals	total PCBs	28 JN	mg/kg OC	**2.3**	0.43	no
2.4 – 4	2.6 – 4.3	SMS chemicals and organometals	total PCBs	18 JN	mg/kg OC	**1.5**	0.28	no
4 – 6	4.3 – 6.4	PCBs	na	na	na	ne	ne	ne
6 – 8	6.4 – 8.5	PCBs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC11								
0 – 2	0 – 1.8	SMS chemicals and pesticides	mercury	0.45	mg/kg dw	**1.1**	0.76	no
			total PCBs	40	mg/kg OC	**3.3**	0.62	no
2 – 4	1.8 – 4.0	SMS chemicals and pesticides	cadmium	5.2	mg/kg dw	**1.0**	0.78	no
			mercury	1.26	mg/kg dw	**3.1**	**2.1**	no
			BEHP	60	mg/kg OC	**1.3**	0.77	no
			total PCBs	120	mg/kg OC	**10**	**1.8**	no
			total DDTs	100 J	µg/kg dw	**14**	**1.4**	no
4 – 6	4.0 – 6.1	SMS chemicals and pesticides	mercury	0.73	mg/kg dw	**1.8**	**1.2**	no
			total PCBs	16	mg/kg OC	**1.3**	0.25	no
			total DDTs	14.9 J	µg/kg dw	**2.2**	0.22	no
6 – 8	6.1 – 9.1	mercury and PCBs	na	na	na	ne	ne	ne
EW10-SC12								
0 – 2	0 – 2.2	SMS chemicals	mercury	0.84	mg/kg dw	**2.0**	**1.4**	no
			BEHP	52	mg/kg OC	**1.1**	0.67	no
			total PCBs	120 J	mg/kg OC	**10**	**1.8**	no
2 – 3.1	2.2 – 3.6	SMS chemicals	mercury	3.20	mg/kg dw	**7.8**	**5.4**	no
			BEHP	51	mg/kg OC	**1.1**	0.65	no
			total PCBs	85	mg/kg OC	**7.1**	**1.3**	no
5 – 7	5.6 – 7.8	mercury, SVOCs and PCBs	na	na	na	ne	ne	ne
7 – 9	7.8 – 10	mercury	na	na	na	ne	ne	ne
EW10-SC13								
0 – 1.6	0 – 1.9	SMS chemicals	mercury	0.49 J	mg/kg dw	**1.2**	0.83	no
			total PCBs	66.8	mg/kg OC	**5.6**	**1.0**	no
1.6 – 4	1.9 – 4.7	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC14								
0 – 2.8	0 – 3.2	SMS chemicals	total PCBs	42	mg/kg OC	**3.5**	0.65	no
2.8 – 5.3	3.2 – 6.1	SMS chemicals	total PCBs	87.1	mg/kg OC	**7.3**	**1.3**	no
5.3 – 7.3	6.1 – 8.4	PCBs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC15								
0 – 2.3	0 – 2.3	SMS chemicals	mercury	0.70	mg/kg dw	**1.7**	**1.2**	no
			total PCBs	58.1	mg/kg OC	**4.8**	0.89	no
2.3 – 4	2.3 – 4.0	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC16								
0 – 1.9	0 – 2.6	SMS chemicals	mercury	0.43 J	mg/kg dw	**1.0**	0.73	no
			BEHP	49	mg/kg OC	**1.0**	0.63	no
			1,4-dichlorobenzene	4.2	mg/kg OC	**1.4**	0.47	no
			total PCBs	168	mg/kg OC	**14**	**2.6**	no
1.9 – 4	2.6 – 5.5	SMS chemicals	mercury	0.47 J	mg/kg dw	**1.1**	0.80	no
4 – 6	5.5 – 8.3	mercury	na	na	na	ne	ne	ne
6 – 8.2	8.3 – 11.3	mercury	na	na	na	ne	ne	ne
EW10-SC17								
0 – 2	0 – 2.1	SMS chemicals	mercury	0.54 J	mg/kg dw	**1.3**	0.92	no
			total PCBs	32	mg/kg OC	**2.7**	0.49	no
2 – 4	2.1 – 4.1	SMS chemicals	mercury	1.35 J	mg/kg dw	**3.3**	**2.3**	no
			total PCBs	88.7	mg/kg OC	**7.4**	**1.4**	no
6 – 8	6.2 – 8.2	mercury and PCBs	mercury	2.54	mg/kg dw	**6.2**	**4.3**	no
			total PCBs	950	µg/kg dw	**7.3**	0.95	yes
8 – 10	8.2 – 10.3	mercury	mercury	0.80	mg/kg dw	**2.0**	**1.4**	no
11.5 – 13	11.8 – 13.4	mercury and PCBs	na	na	na	ne	ne	ne
EW10-SC18								
0 – 2	0 – 2.1	SMS chemicals and organometals	mercury	0.56	mg/kg dw	**1.4**	0.95	no
			total PCBs	83.3	mg/kg OC	**6.9**	**1.3**	no
2 – 4	2.1 – 4.1	SMS chemicals and organometals	mercury	0.65	mg/kg dw	**1.6**	**1.1**	no
			BEHP	48	mg/kg OC	**1.0**	0.62	no
			total PCBs	88.9	mg/kg OC	**7.4**	**1.4**	no
4 – 6	4.1 – 6.2	mercury, SVOCs and PCBs	total PCBs	24.5	mg/kg OC	**2.0**	0.38	no
6 – 8	6.2 – 8.2	mercury and PCBs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC19								
0 – 2.5	0 – 2.6	SMS chemicals and pesticides	mercury	0.57	mg/kg dw	**1.4**	0.97	no
			BEHP	58	mg/kg OC	**1.2**	0.74	no
			1,4-dichlorobenzene	9.8	mg/kg OC	**3.2**	**1.1**	no
			total PCBs	92.6	mg/kg OC	**7.7**	**1.4**	no
2.5 – 4	2.6 – 4.1	SMS chemicals and pesticides	total PCBs	330	µg/kg dw	**2.5**	0.33	yes
4 – 6	4.1 – 6.2	SVOCs and PCBs	na	na	ne	ne	ne	ne
EW10-SC20								
0.4 – 2.4	0.4 – 2.6	SMS chemicals	na	na	ne	ne	ne	ne
2.4 – 4.4	2.6 – 4.8	SMS chemicals	na	na	ne	ne	ne	ne
EW10-SC21								
0 – 2	0 – 2.1	SMS chemicals	mercury	0.45	mg/kg dw	**1.1**	0.76	no
			BEHP	59	mg/kg OC	**1.3**	0.76	no
			1,4-dichlorobenzene	15	mg/kg OC	**4.8**	**1.7**	no
			total PCBs	82.9	mg/kg OC	**6.9**	**1.3**	no
2 – 4	2.1 – 4.2	SMS chemicals	mercury	0.73	mg/kg dw	**1.8**	**1.2**	no
			BEHP	160	mg/kg OC	**3.4**	**2.1**	no
			1,4-dichlorobenzene	11	mg/kg OC	**3.5**	**1.2**	no
			total PCBs	110	mg/kg OC	**9.2**	**1.7**	no
5.3 – 7.8	5.5 – 8.2	mercury, SVOCs and PCBs	na	na	na	ne	ne	ne
7.8 – 10	8.2 – 10.4	mercury	na	na	na	ne	ne	ne
EW10-SC22								
0 – 1.9	0 – 2.0	SMS chemicals	total PCBs	133	µg/kg dw	**1.0**	0.13	yes
1.9 – 4	2.0 – 4.1	SMS chemicals	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC23								
0 – 1.3	0 – 1.3	SMS chemicals and organometals	total PCBs	33	mg/kg OC	**2.8**	0.51	no
1.3 – 3.2	1.3 – 3.1	SMS chemicals and organometals	cadmium	18.4	mg/kg dw	**3.6**	**2.7**	no
			lead	455	mg/kg dw	**1.0**	0.86	no
			mercury	1.64	mg/kg dw	**4.0**	**2.8**	no
			silver	6.5	mg/kg dw	**1.1**	**1.1**	no
			zinc	2,280	mg/kg dw	**5.6**	**2.4**	no
			acenaphthene	800	µg/kg dw	**1.6**	**1.1**	yes
			anthracene	2,900	µg/kg dw	**3.0**	0.66	yes
			benzo(a)anthracene	4,000	µg/kg dw	**3.1**	**2.5**	yes
			benzo(a)pyrene	3,000	µg/kg dw	**1.9**	**1.0**	yes
			benzo(g,h,i)perylene	690	µg/kg dw	**1.0**	0.96	yes
			total benzofluoranthenes	8,400	µg/kg dw	**2.6**	**2.3**	yes
			chrysene	4,700	µg/kg dw	**3.4**	**1.7**	yes
			dibenzo(a,h)anthracene	760	µg/kg dw	**3.3**	**1.4**	yes
			fluoranthene	10,000	µg/kg dw	**5.9**	**4.0**	yes
			fluorene	1,100	µg/kg dw	**2.0**	**1.1**	yes
			indeno(1,2,3-cd)pyrene	720	µg/kg dw	**1.2**	**1.0**	yes
			pyrene	18,000	µg/kg dw	**6.9**	**5.5**	yes
			total HPAHs	50,000	µg/kg dw	**4.2**	**2.9**	yes
			total LPAHs	6,900	µg/kg dw	**1.3**	0.53	yes
			BEHP	5,800	µg/kg dw	**4.5**	**3.1**	yes
			butyl benzyl phthalate	340	µg/kg dw	**5.4**	0.38	yes
			total PCBs	17,600	µg/kg dw	**140**	**18**	yes
7 – 9	7.3 – 9.3	mercury	mercury	0.76	mg/kg dw	**1.9**	**1.3**	no
9 – 11	9.3 – 11.4	SMS chemicals	Fluoranthene	170	mg/kg OC	**1.1**	0.14	no
11 – 12.9	11.4 – 13.4	mercury and PAHs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC24								
0 – 2	0 – 2.1	SMS chemicals	mercury	0.49 J	mg/kg dw	**1.2**	0.83	no
			1,4-dichlorobenzene	5.4	mg/kg OC	**1.7**	0.60	no
			total PCBs	74.5	mg/kg OC	**6.2**	**1.1**	no
2 – 4.7	2.1 – 4.9	SMS chemicals	mercury	0.67 J	mg/kg dw	**1.6**	**1.1**	no
			BEHP	99	mg/kg OC	**2.1**	**1.3**	no
			butyl benzyl phthalate	5.3	mg/kg OC	**1.1**	0.083	no
			1,4-dichlorobenzene	9.9	mg/kg OC	**3.2**	**1.1**	no
			total PCBs	90.7	mg/kg OC	**7.6**	**1.4**	no
6 – 8	6.2 – 8.3	mercury, SVOCs and PCBs	acenaphthene	33	mg/kg OC	**2.1**	0.58	no
			dibenzofuran	16	mg/kg OC	**1.1**	0.28	no
			fluoranthene	220	mg/kg OC	**1.4**	0.18	no
			fluorene	29	mg/kg OC	**1.3**	0.37	no
			BEHP	73	mg/kg OC	**1.6**	0.94	no
			total PCBs	85	mg/kg OC	**7.1**	**1.3**	no
8 – 10	8.3 – 10.4	mercury, SVOCs and PCBs	na	na	na	ne	ne	ne
EW10-SC25								
0.8 – 2.8	0.9 – 3.0	SMS chemicals	na	na	na	ne	ne	ne
2.8 – 4.8	3.0 – 5.2	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC26								
0 – 2.7	0 – 2.9	SMS chemicals and organometals	total PCBs	38	mg/kg OC	**3.2**	0.58	no
2.7 – 4	2.9 – 4.2	SMS chemicals and organometals	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC27								
0 – 2	0 – 2.1	SMS chemicals	cadmium	11.3	mg/kg dw	**2.2**	**1.7**	no
			mercury	1.16	mg/kg dw	**2.8**	**2.0**	no
			zinc	998	mg/kg dw	**2.4**	**1.0**	no
			fluoranthene	2,400	µg/kg dw	**1.4**	0.96	yes
			pyrene	2,800	µg/kg dw	**1.1**	0.85	yes
			BEHP	4,700	µg/kg dw	**3.6**	**2.5**	yes
			butyl benzyl phthalate	110	µg/kg dw	**1.7**	0.12	yes
			total PCBs	3,600	µg/kg dw	**28**	**3.6**	yes
2 – 4	2.1 – 4.2	SMS chemicals	cadmium	9.8	mg/kg dw	**1.9**	**1.5**	no
			lead	525	mg/kg dw	**1.2**	0.99	no
			mercury	1.81	mg/kg dw	**4.4**	**3.1**	no
			zinc	1,180	mg/kg dw	**2.9**	**1.2**	no
			acenaphthene	160	mg/kg OC	**10**	**2.8**	no
			dibenzofuran	91	mg/kg OC	**6.1**	**1.6**	no
			fluoranthene	310	mg/kg OC	**1.9**	0.26	no
			fluorene	140	mg/kg OC	**6.1**	**1.8**	no
			phenanthrene	310	mg/kg OC	**3.1**	0.65	no
			total LPAHs	780	mg/kg OC	**2.1**	**1.0**	no
			BEHP	57	mg/kg OC	**1.2**	0.73	no
			total PCBs	200	mg/kg OC	**17**	**3.1**	no
6 – 7.7	6.4 – 8.2	SMS chemicals	mercury	1.18	mg/kg dw	**2.9**	**2.0**	no
7.7 – 10	8.2 – 10.6	mercury	na	na	na	ne	ne	ne
10 – 12.5	10.6 – 13.3	mercury	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC28								
1 – 3	1.2 – 3.5	SMS chemicals	mercury	0.59 J	mg/kg dw	**1.4**	**1.0**	no
			1,2,4-trichlorobenzene	1.1	mg/kg OC	**1.4**	0.61	no
			1,4-dichlorobenzene	4.7	mg/kg OC	**1.5**	0.52	no
			total PCBs	52	mg/kg OC	**4.3**	0.80	no
3 – 5	3.5 – 5.9	SMS chemicals	mercury	1.18 J	mg/kg dw	**2.9**	**2.0**	no
			1,2,4-trichlorobenzene	2.2	mg/kg OC	**2.7**	**1.2**	no
			1,4-dichlorobenzene	16	mg/kg OC	**5.2**	**1.8**	no
			total PCBs	400	mg/kg OC	**33**	**6.2**	no
6.2 – 8	7.3 – 9.4	mercury, SVOCs and PCBs	na	na	na	ne	ne	ne
8 – 10	9.4 – 11.8	mercury	mercury	0.53	mg/kg dw	**1.3**	0.90	no
10 – 11.7	11.8 – 13.8	mercury	na	na	na	ne	ne	ne
EW10-SC29								
0 – 2	0 – 2.3	SMS chemicals	cadmium	7.3	mg/kg dw	**1.4**	**1.1**	no
			mercury	3.37	mg/kg dw	**8.2**	**5.7**	no
			zinc	854	mg/kg dw	**2.1**	0.89	no
			acenaphthene	850	µg/kg dw	**1.7**	**1.2**	yes
			anthracene	2,000	µg/kg dw	**2.1**	0.45	yes
			benzo(a)anthracene	2,500	µg/kg dw	**1.9**	**1.6**	yes
			benzo(a)pyrene	1,700	µg/kg dw	**1.1**	0.57	yes
			total benzofluoranthenes	3,400	µg/kg dw	**1.1**	0.94	yes
			chrysene	2,800	µg/kg dw	**2.0**	**1.0**	yes
			dibenzo(a,h)anthracene	240	µg/kg dw	**1.0**	0.44	yes
			fluoranthene	6,900	µg/kg dw	**4.1**	**2.8**	yes
			pyrene	6,600	µg/kg dw	**2.5**	**2.0**	yes
			total HPAHs	25,200	µg/kg dw	**2.1**	**1.5**	yes
			BEHP	1,400	µg/kg dw	**1.1**	0.74	yes
			total PCBs	10,000	µg/kg dw	**77**	**10**	yes

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC29								
2 – 3.9	2.3 – 4.4	SMS chemicals	cadmium	5.7	mg/kg dw	**1.1**	0.85	no
			mercury	2.41	mg/kg dw	**5.9**	**4.1**	no
			zinc	546	mg/kg dw	**1.3**	0.57	no
			2-methylnaphthalene	4,400	µg/kg dw	**6.6**	**3.1**	yes
			acenaphthene	6,800	µg/kg dw	**14**	**9.3**	yes
			anthracene	4,300	µg/kg dw	**4.5**	0.98	yes
			benzo(a)anthracene	1,900	µg/kg dw	**1.5**	**1.2**	yes
			chrysene	2,000	µg/kg dw	**1.4**	0.71	yes
			dibenzofuran	4,000	µg/kg dw	**7.4**	**5.7**	yes
			fluoranthene	8,700	µg/kg dw	**5.1**	**3.5**	yes
			fluorene	5,200	µg/kg dw	**9.6**	**5.2**	yes
			naphthalene	17,000	µg/kg dw	**8.1**	**7.1**	yes
			phenanthrene	7,000	µg/kg dw	**4.7**	**1.3**	yes
			pyrene	4,600	µg/kg dw	**1.8**	**1.4**	yes
			total HPAHs	22,400	µg/kg dw	**1.9**	**1.3**	yes
			total LPAHs	40,000	µg/kg dw	**7.7**	**3.1**	yes
			2,4-dimethylphenol	71	µg/kg dw	**2.4**	**2.4**	no
9.7 – 11.7	10.9 – 13.2	SMS chemicals	acenaphthene	54	mg/kg OC	**3.4**	0.95	no
			dibenzofuran	39	mg/kg OC	**2.6**	0.67	no
			fluorene	59	mg/kg OC	**2.6**	0.75	no
			phenanthrene	230	mg/kg OC	**2.3**	0.48	no
			total LPAHs	440	mg/kg OC	**1.2**	0.56	no
EW10-SC30								
0 – 2	0 – 2.0	SMS chemicals	mercury	0.53	mg/kg dw	**1.3**	0.90	no
			total PCBs	39	mg/kg OC	**3.3**	0.60	no
2 – 4.3	2.0 – 4.4	SMS chemicals	mercury	0.45	mg/kg dw	**1.1**	0.76	no
			total PCBs	38	mg/kg OC	**3.2**	0.58	no
4.3 – 6	4.4 – 6.1	mercury and PCBs	total PCBs	32	mg/kg OC	**2.7**	0.49	no
6 – 8	6.1 – 8.2	mercury and PCBs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC31								
0.7 – 2.7	0.7 – 2.9	SMS chemicals	total PCBs	38	mg/kg OC	**3.2**	0.58	no
2.7 – 5.3	2.9 – 5.7	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC32								
0 – 2	0 – 2.0	SMS chemicals	cadmium	6.1	mg/kg dw	**1.2**	0.91	no
			mercury	1.27	mg/kg dw	**3.1**	**2.2**	no
			zinc	599	mg/kg dw	**1.5**	0.62	no
			acenaphthene	35	mg/kg OC	**2.2**	0.61	no
			dibenzofuran	24	mg/kg OC	**1.6**	0.41	no
			fluorene	38	mg/kg OC	**1.7**	0.48	no
			BEHP	60	mg/kg OC	**1.3**	0.77	no
			2,4-dimethylphenol	38	µg/kg dw	**1.3**	**1.3**	no
			total PCBs	120	mg/kg OC	**10**	**1.8**	no
2 – 4	2.0 – 4.0	SMS chemicals	cadmium	6.9	mg/kg dw	**1.4**	**1.0**	no
			mercury	2.95	mg/kg dw	**7.2**	**5.0**	no
			silver	6.8	mg/kg dw	**1.1**	**1.1**	no
			zinc	623	mg/kg dw	**1.5**	0.65	no
			acenaphthene	1,400	µg/kg dw	**2.8**	**1.9**	yes
			anthracene	1,400	µg/kg dw	**1.5**	0.32	yes
			chrysene	1,900	µg/kg dw	**1.4**	0.68	yes
			dibenzofuran	730	µg/kg dw	**1.4**	**1.0**	yes
			fluoranthene	5,000	µg/kg dw	**2.9**	**2.0**	yes
			fluorene	1,700	µg/kg dw	**3.1**	**1.7**	yes
			phenanthrene	5,000	µg/kg dw	**3.3**	0.93	yes
			pyrene	3,700	µg/kg dw	**1.4**	**1.1**	yes
			total HPAHs	15,400	µg/kg dw	**1.3**	0.91	yes
			total LPAHs	9,800	µg/kg dw	**1.9**	0.75	yes
			butyl benzyl phthalate	67	µg/kg dw	**1.1**	0.074	yes
			1,2,4-trichlorobenzene	62	µg/kg dw	**2.0**	**1.2**	yes
			2,4-dimethylphenol	41 J	µg/kg dw	**1.4**	**1.4**	no
			total PCBs	6,200	µg/kg dw	**48**	**6.2**	yes

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC32								**EW10-SC31**
8.9 – 10.9	9.0 – 11	SMS chemicals	na	na	na	ne	ne	ne
10.9 – 12.9	11 – 13	mercury	na	na	na	ne	ne	ne
EW10-SC33								
0 – 2	0 – 2.1	SMS chemicals and organometals	cadmium	5.3	mg/kg dw	**1.0**	0.79	no
			mercury	1.95 J	mg/kg dw	**4.8**	**3.3**	no
			zinc	578	mg/kg dw	**1.4**	0.60	no
			total PCBs	98	mg/kg OC	**8.2**	**1.5**	no
2 – 3.5	2.1 – 3.7	SMS chemicals and organometals	mercury	0.99 J	mg/kg dw	**2.4**	**1.7**	no
			zinc	494	mg/kg dw	**1.2**	0.51	no
			acenaphthene	18	mg/kg OC	**1.1**	0.32	no
			fluoranthene	210	mg/kg OC	**1.3**	0.18	no
			BEHP	59	mg/kg OC	**1.3**	0.76	no
			total PCBs	160	mg/kg OC	**13**	**2.5**	no
5.8 – 8	6.1 – 8.4	SMS chemicals	na	na	na	ne	ne	ne
8 – 9.8	8.4 – 10.2	mercury	na	na	na	ne	ne	ne
EW10-SC34								
0.2 – 2.4	0.2 – 2.6	SMS chemicals	na	na	na	ne	ne	ne
2.4 – 3.9	2.6 – 4.2	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC35								
0 – 2	0 – 2.1	SMS chemicals	BEHP	130	mg/kg OC	**2.8**	**1.7**	no
			total PCBs	55	mg/kg OC	**4.6**	0.85	no
2 – 4	2.1 – 4.2	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC36								
0.9 – 3	1.0 – 3.3	SMS chemicals and organometals	total PCBs	17.7 J	mg/kg OC	**1.5**	0.27	no
3 – 5	3.3 – 5.6	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC37								
0 – 2	0 – 2.1	SMS chemicals and organometals	total PCBs	66	mg/kg OC	**5.5**	**1.0**	no
2 – 3.9	2.1 – 4.0	SMS chemicals and organometals	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC38								
0 – 0.8	0 – 0.8	SMS chemicals	na	na	na	ne	ne	ne
0.8 – 2	0.8 – 2.1	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC39								
0 – 2	0 – 2.1	SMS chemicals and pesticides	total PCBs	30.8	mg/kg OC	**2.6**	0.47	no
2 – 3.4	2.1 – 3.6	SMS chemicals and pesticides	na	na	na	ne	ne	ne
EW10-SC40								
0 – 1	0 – 1.1	SMS chemicals and organometals	mercury	0.82	mg/kg dw	**2.0**	**1.4**	no
			total PCBs	31	mg/kg OC	**2.6**	0.48	no
1 – 4	1.1 – 4.2	SMS chemicals and organometals	mercury	0.57	mg/kg dw	**1.4**	0.97	no
4 – 6.8	4.2 – 7.2	mercury and PCBs	na	na	na	ne	ne	ne
6.8 – 8	7.2 – 8.4	mercury	na	na	na	ne	ne	ne
EW10-SC41								
0 – 0.6	0 – 0.6	SMS chemicals	na	na	na	ne	ne	ne
0.6 – 2	0.6 – 2.0	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC42								
0 – 2	0 – 2.0	SMS chemicals	mercury	0.83	mg/kg dw	**2.0**	**1.4**	no
			total PCBs	63.0	mg/kg OC	**5.3**	0.97	no
2 – 4	2.0 – 4.1	SMS chemicals	mercury	1.52	mg/kg dw	**3.7**	**2.6**	no
			total PCBs	54.1	mg/kg OC	**4.5**	0.83	no
4 – 5.5	4.1 – 5.6	mercury and PCBs	mercury	0.42	mg/kg dw	**1.0**	0.71	no
5.5 – 8	5.6 – 8.1	mercury	na	na	na	ne	ne	ne
8 – 10	8.1 – 10.1	mercury	na	na	na	ne	ne	ne
EW10-SC43								
0 – 1.3	0 – 1.5	SMS chemicals and organometals	total PCBs	62.2	mg/kg OC	**5.2**	0.96	no
1.3 – 4	1.5 – 4.6	SMS chemicals and organometals	total PCBs	78.9	mg/kg OC	**6.6**	**1.2**	no
4 – 6	4.6 – 6.9	PCBs	na	na	na	ne	ne	ne
6 – 8	6.9 – 9.3	PCBs	na	na	ne	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC44								
0 – 2	0 – 2.0	SMS chemicals and organometals	na	na	na	ne	ne	ne
2 – 4	2.0 – 4.0	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC45								
0 – 1	0 – 1.0	SMS chemicals	na	na	na	ne	ne	ne
1 – 1.7	1.0 – 1.7	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC46								
0 – 2.3	0 – 2.5	SMS chemicals and organometals	na	na	na	ne	ne	ne
2.3 – 4	2.5 – 4.3	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC47								
0 – 2	0 – 2.4	SMS chemicals and organometals	mercury	0.64	mg/kg dw	**1.6**	**1.1**	no
			total PCBs	240	mg/kg OC	**20**	**3.7**	no
2 – 3.6	2.4 – 4.5	SMS chemicals and organometals	mercury	0.48	mg/kg dw	**1.2**	0.81	no
			total PCBs	17.4 J	mg/kg OC	**1.5**	0.27	no
3.6 – 6	4.5 – 7.1	mercury and PCBs	na	na	na	ne	ne	ne
6 – 8	7.1 – 9.5	mercury	na	na	na	ne	ne	ne
EW10-SC48								
0 – 2	0 – 2.1	SMS chemicals	mercury	0.49 J	mg/kg dw	**1.2**	0.83	no
			BEHP	54	mg/kg OC	**1.1**	0.69	no
			total PCBs	107	mg/kg OC	**8.9**	**1.6**	no
2 – 4.7	2.1 – 4.9	SMS chemicals	cadmium	5.5	mg/kg dw	**1.1**	0.82	no
			mercury	1.40 J	mg/kg dw	**3.4**	**2.4**	no
			total PCBs	120	mg/kg OC	**10**	**1.8**	no
4.7 – 6	4.9 – 6.2	Metals and PCBs	mercury	0.76	mg/kg dw	**1.9**	**1.3**	no
			total PCBs	21	mg/kg OC	**1.8**	0.32	no
6 – 8	6.2 – 8.3	mercury and PCBs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC49								
0 – 1.6	0 – 1.6	SMS chemicals and organometals	mercury	0.54	mg/kg dw	**1.3**	0.92	no
			BEHP	140	mg/kg OC	**3.0**	**1.8**	no
			total PCBs	36	mg/kg OC	**3.0**	0.55	no
1.6 – 4	1.6 – 4.0	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC50								
0 – 1.6	0 – 1.9	SMS chemicals and organometals	lead	1,450 J	mg/kg dw	**3.2**	**2.7**	no
			mercury	2.09 J	mg/kg dw	**5.1**	**3.5**	no
			zinc	1,020	mg/kg dw	**2.5**	**1.1**	no
			total PCBs	26 J	mg/kg OC	**2.2**	0.40	no
1.6 – 4	1.9 – 4.7	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC51								
0 – 2	0 – 2.3	SMS chemicals and organometals	na	na	na	ne	ne	ne
2 – 3.8	2.3 – 4.3	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC52								
0 – 2	0 – 2.2	SMS chemicals	mercury	0.64 J	mg/kg dw	**1.6**	**1.1**	no
			BEHP	94	mg/kg OC	**2.0**	**1.2**	no
			total PCBs	160	mg/kg OC	**13**	**2.5**	no
2 – 4	2.2 – 4.4	SMS chemicals	total PCBs	22.9	mg/kg OC	**1.9**	0.35	no
4 – 6	4.4 – 6.6	PCBs	na	na	na	ne	ne	ne
EW10-SC53								
0 – 2	0 – 2.3	SMS chemicals	total PCBs	68	mg/kg OC	**5.7**	**1.0**	no
2 – 4	2.3 – 4.6	SMS chemicals	total PCBs	162	mg/kg OC	**14**	**2.5**	no
5 – 7	5.7 – 8.0	PCBs	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC54								
0 – 2	0 – 2.8	SMS chemicals and pesticides	lead	535 J	mg/kg dw	**1.2**	**1.0**	no
			mercury	0.58 J	mg/kg dw	**1.4**	0.98	no
			zinc	664	mg/kg dw	**1.6**	0.69	no
			2-methylnaphthalene	53	mg/kg OC	**1.4**	0.83	no
			acenaphthene	110	mg/kg OC	**6.9**	**1.9**	no
			benzo(a)anthracene	270	mg/kg OC	**2.5**	**1.0**	no
			benzo(a)pyrene	280	mg/kg OC	**2.8**	**1.3**	no
			benzo(g,h,i)perylene	75	mg/kg OC	**2.4**	0.96	no
			total benzofluoranthenes	450	mg/kg OC	**2.0**	**1.0**	no
			chrysene	280	mg/kg OC	**2.5**	0.61	no
			dibenzo(a,h)anthracene	49	mg/kg OC	**4.1**	**1.5**	no
			dibenzofuran	40	mg/kg OC	**2.7**	0.69	no
			fluoranthene	700	mg/kg OC	**4.4**	0.58	no
			fluorene	120	mg/kg OC	**5.2**	**1.5**	no
			indeno(1,2,3-cd)pyrene	80	mg/kg OC	**2.4**	0.91	no
			phenanthrene	640	mg/kg OC	**6.4**	**1.3**	no
			total HPAHs	2,900	mg/kg OC	**3.0**	0.55	no
			total LPAHs	1,200	mg/kg OC	**3.2**	**1.5**	no
			BEHP	75	mg/kg OC	**1.6**	0.96	no
			butyl benzyl phthalate	7.0	mg/kg OC	**1.4**	0.11	no
			2,4-dimethylphenol	130	µg/kg dw	**4.5**	**4.5**	no
			2-methylphenol	82	µg/kg dw	**1.3**	**1.3**	no
			total PCBs	110	mg/kg OC	**9.2**	**1.7**	no
			total DDTs	300	µg/kg dw	**43**	**4.3**	no
			total chlordane	33	µg/kg dw	**3.3**		no

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC54								**EW10-SC54**
2 – 4	2.8 – 5.7	SMS chemicals and pesticides	cadmium	6.2	mg/kg dw	**1.2**	0.93	no
			mercury	1.83 J	mg/kg dw	**4.5**	**3.1**	no
			zinc	591	mg/kg dw	**1.4**	0.62	no
			anthracene	1,500	µg/kg dw	**1.6**	0.34	yes
			benzo(a)anthracene	2,800	µg/kg dw	**2.2**	**1.8**	yes
			benzo(a)pyrene	2,500	µg/kg dw	**1.6**	0.83	yes
			benzo(g,h,i)perylene	840	µg/kg dw	**1.3**	**1.2**	yes
			total benzofluoranthenes	4,600	µg/kg dw	**1.4**	**1.3**	yes
			chrysene	4,000	µg/kg dw	**2.9**	**1.4**	yes
			dibenzo(a,h)anthracene	400 J	µg/kg dw	**1.7**	0.74	yes
			fluoranthene	7,500	µg/kg dw	**4.4**	**3.0**	yes
			indeno(1,2,3-cd)pyrene	850	µg/kg dw	**1.4**	**1.2**	yes
			pyrene	7,100	µg/kg dw	**2.7**	**2.2**	yes
			total HPAHs	30,600 J	µg/kg dw	**2.6**	**1.8**	yes
			butyl benzyl phthalate	190	µg/kg dw	**3.0**	0.21	yes
			total PCBs	3,200	µg/kg dw	**25**	**3.2**	yes
			total DDTs	1,400 J	µg/kg dw	**200**	**20**	no
8 – 9.2	11.3 – 13	SMS chemicals and pesticides	acenaphthene	25	mg/kg OC	**1.6**	0.44	no
			dibenzofuran	16	mg/kg OC	**1.1**	0.28	no
EW10-SC55								
0 – 1.8	0 – 2.3	SMS chemicals	total PCBs	40	mg/kg OC	**3.3**	0.62	no
1.8 – 4	2.3 – 5.1	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC56								
0 – 2	0 – 2.2	SMS chemicals and organometals	na	na	na	ne	ne	ne
2 – 4	2.2 – 4.3	SMS chemicals and organometals	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC57								
0 – 2	0 – 2.0	SMS chemicals and pesticides	acenaphthene	28	mg/kg OC	**1.8**	0.49	no
			benzo(a)anthracene	130	mg/kg OC	**1.2**	0.48	no
			benzo(a)pyrene	180	mg/kg OC	**1.8**	0.86	no
			total benzofluoranthenes	340	mg/kg OC	**1.5**	0.76	no
			chrysene	170	mg/kg OC	**1.5**	0.37	no
			dibenzo(a,h)anthracene	14	mg/kg OC	**1.2**	0.42	no
			fluoranthene	290	mg/kg OC	**1.8**	0.24	no
			phenanthrene	180	mg/kg OC	**1.8**	0.38	no
			total HPAHs	1,730	mg/kg OC	**1.8**	0.33	no
			1,4-dichlorobenzene	12	mg/kg OC	**3.9**	**1.3**	no
			total PCBs	48	mg/kg OC	**4.0**	0.74	no
2 – 4	2.0 – 4.1	SMS chemicals and pesticides	na	na	na	ne	ne	ne
EW10-SC58								
0 – 1.8	0 – 2.0	SMS chemicals	copper	442	mg/kg dw	**1.1**	**1.1**	no
			mercury	1.23	mg/kg dw	**3.0**	**2.1**	no
			zinc	459	mg/kg dw	**1.1**	0.48	no
			benzo(a)anthracene	200	mg/kg OC	**1.8**	0.74	no
			benzo(a)pyrene	270	mg/kg OC	**2.7**	**1.3**	no
			benzo(g,h,i)perylene	45	mg/kg OC	**1.5**	0.58	no
			total benzofluoranthenes	600	mg/kg OC	**2.6**	**1.3**	no
			chrysene	310	mg/kg OC	**2.8**	0.67	no
			dibenzo(a,h)anthracene	25	mg/kg OC	**2.1**	0.76	no
			indeno(1,2,3-cd)pyrene	48	mg/kg OC	**1.4**	0.55	no
			total HPAHs	2,110	mg/kg OC	**2.2**	0.40	no
			BEHP	77	mg/kg OC	**1.6**	0.99	no
			total PCBs	120 J	mg/kg OC	**10**	**1.8**	no

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC58								
1.8 – 4	2.0 – 4.4	SMS chemicals	acenaphthene	79	mg/kg OC	**4.9**	**1.4**	no
			dibenzofuran	39	mg/kg OC	**2.6**	0.67	no
			fluoranthene	500 J	mg/kg OC	**3.1**	0.42	no
			fluorene	73	mg/kg OC	**3.2**	0.92	no
			phenanthrene	280	mg/kg OC	**2.8**	0.58	no
			total HPAHs	1,240 J	mg/kg OC	**1.3**	0.23	no
			total LPAHs	540	mg/kg OC	**1.5**	0.69	no
6 – 8	4.4 – 6.7	PAHs	na	na	na	ne	ne	ne
EW10-SC59								
0 – 2	0 – 2.0	SMS chemicals and organometals	na	na	na	ne	ne	ne
2 – 4	2.0 – 4.1	SMS chemicals and organometals	na	na	na	ne	ne	ne
EW10-SC60								
0 – 0.8	0 – 0.9	SMS chemicals	mercury	0.69	mg/kg dw	**1.7**	**1.2**	no
			total PCBs	16	mg/kg OC	**1.3**	0.25	no
0.8 – 3	0.9 – 3.3	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC61								
0 – 1	0 – 1.1	SMS chemicals	total PCBs	30 JN	mg/kg OC	**2.5**	0.46	no
1 – 3	1.1 – 3.2	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC62								
0 – 2	0 – 2.2	SMS chemicals	na	na	na	ne	ne	ne
2 – 3.3	2.2 – 3.6	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC63								
0 – 2	0 – 2.1	SMS chemicals	na	na	na	ne	ne	ne
2 – 4	2.1 – 4.2	SMS chemicals	na	na	na	ne	ne	ne
EW10-SC100								
0 – 1.1	0 – 1.1	Organometals	na	na	na	ne	ne	ne
1.1 – 3	1.1 – 3.1	Organometals	na	na	na	ne	ne	ne

Table 4-9. Summary of results for chemicals with detected concentrations that exceeded SMS criteria or DMMP guidelines by sampling location (cont.)

Sampling Interval (ft)		Chemicals Analyzed	Chemical	Concentration	Unit	Exceedance Factor[a]		AET Substitution
Recovered Depth	In Situ Depth					SQS/SL	CSL/ML	
EW10-SC101								
0 – 2.3	0 – 2.4	Organometals	na	na	na	ne	ne	ne
2.3 – 4	2.4 – 4.2	Organometals	na	na	na	ne	ne	ne

[a] The exceedance factor is the ratio of detected concentration to SMS criteria or DMMP guidelines.

Bold indicates exceedance factors greater than one for the SQS/SL and greater than or equal to one for the CSL/ML

AET – apparent effects threshold
BEHP – bis(2-ethylhexyl) phthalate
CSL – cleanup screening level
DDT – dichlorodiphenyltrichloroethane
DMMP – Dredged Material Management Program
dw – dry weight
HPAH – high-molecular-weight polycyclic aromatic hydrocarbon
J – estimated concentration
LPAH – low-molecular-weight polycyclic aromatic hydrocarbon
ML – maximum level
N – tentative identification
na – not applicable
ne– no exceedances
OC– organic carbon
PCB – polychlorinated biphenyl
SL – screening level
SMS – Washington State Sediment Management Standards
SQS – sediment quality standards
SVOC – semivolatile organic compound

4.2 PHYSICAL RESULTS

This section presents the lithology and stratigraphy descriptions and the geotechnical results for the subsurface sediment cores.

4.2.1 Lithology and stratigraphy

The physical attributes of sediment strata are referred to as lithology and stratigraphy. Lithology refers to the physical characteristics of the sediment and consists of the dominant soil type (e.g., sand or silt), grain size percentages, texture (e.g., fine or medium grained), sorting (e.g., well sorted, poorly sorted, or mixed), shape and structure, and the color and mineralogy of particles (Krumbein and Sloss 1963). Stratigraphy defines the individual sediment beds or groups of beds differentiated above or below by unity of color, texture, or gross appearance (Krumbein and Sloss 1963). Stratigraphy is an interpretation based on lithology and site knowledge. The lithology of each core was recorded in the field according to nomenclature described in ASTM D-2488 (ASTM 2001b) and the core log field key (Appendix B). Lithology descriptions were determined and recorded on the basis of visual differences observed in the sediment profile, including features such as density, consistency, moisture content, color, composition, grain size, organic matter content, or other notable characteristics. Sediment was grouped into three stratigraphic units identified for the EW based primarily on density, color, sediment type, texture, and fill horizons (e.g., sand cover). Other information used to delineate these units included presence of anthropogenic matter, bathymetry, proximity to shoreline, and dredge events.
Maps 4-11a through 4-11d show the vertical stratigraphic profile of each core and depth below mudline. These data are also included on the core logs (Appendix B). The profile includes the following units:

- **Recent –** This upper unit consisted of recently deposited material dominated by unconsolidated organic silt and inorganic silt. The surface fraction of silt often contained up to 20% fine sand and 10% gravel. This material was characterized by higher moisture content, soft to medium stiff density, smooth and homogenous texture, and higher visible organic matter compared with the underlying materials. Shell fragments, decomposed wood, and anthropogenic materials were often present scattered throughout the unit (rather than in distinct layers as is common in lower units). A hydrogen sulfide odor was common.
- **Transition –** This middle unit formed a transition zone between Recent and Native units. A transition zone has characteristics that are neither Recent or Native but often a mix of the two. It consisted of a mixture of silty sand and sandy silt matrices with a higher density and a higher percentage of sand compared with those of the Recent unit. Within this matrix, stratified beds of silty sand or silt and lenses (pockets) of silt were also present. Organic silt, layers of decomposed wood, and shell fragments were often present. Some

multicolored sand grains (red, beige, black, white, and gray) were located within the units.

- **Native –** This lower unit was predominantly a sand matrix (95% and non-silty) with laminated and stratified beds of slightly silty to silty sand, and silt. The sand matrix consisted of multicolored grains of red, beige, black, white, and gray. Layers of undecomposed wood and shells were often present in the matrix. The native sand unit typically graded to stiff, inorganic silt as depth increased.
- **Other –** Other units are detailed below:
  - **Fill –** This upper unit was present in cores located in close proximity to the shoreline. The fill unit was dominated by light gray, subrounded, gravelly sand and sandy gravel. Gravel was up to 3 in. in diameter.
  - **Sand Cover –** The sand cover was placed between Stations 3000 to 4900 during the Phase I removal, which was completed in 2005, and was present in the top 1 ft of cores collected from this area. The sand cover was primarily very fine to very coarse-grained brown sand that was distinctly different in appearance from other strata within the EW as a result of color and sorting.

4.2.2 Geotechnical results

The grain size and specific gravity results for the samples that underwent geotechnical analysis are presented in (Table 4-10). Total fines ranged from 4.0 to 80.9%. The only sample with a substantial amount of gravel was the 5.5-to-7-ft interval of sample EW10-SB01, with 42.7% gravel.

Table 4-10. Summary of grain size and specific gravity results for EW subsurface sediment samples that underwent geotechnical analysis

Sample ID	Sampling Interval (ft)	Total Gravel (% dw)	Total Sand (% dw)	Total Silt (% dw)	Total Clay (% dw)	Total Fines (percent silt+clay) (% dw)	Specific Gravity (SU dw)
EW10-SB01-2-3.5	2 – 3.5	4.3	34.2	38.5	22.9	61.4	na
EW10-SB01-5.5-7	5.5 – 7	42.9	53.1	2.6	1.4	4.0	na
EW10-SB01-10.5-12	10.5 – 12	5.0	77.3	12.5	5.3	17.8	na
EW10-SB01-23-24.5	23 – 24.5	0.1	63.3	30.6	6.1	36.7	2.70
EW10-SB01-28-29.5	28 – 29.5	0.1 U	94.9	3.9	1.2	5.1	na
EW10-SB01-30.5-32	30.5 – 32	na	na	na	na	na	2.68
EW10-SB01-45-46.5	45 – 46.45	0.1 U	83.5	13.8	7.1	20.9	na
EW10-SB01-59-60.5	59 – 60.5	0.1 U	36.1	54.7	9.1	63.8	2.70
EW10-SB02-4-6A	4 – 6	11.9	21.4	43.0	23.9	66.9	na
EW10-SB02-14-15.5	14 – 15.5	1.4	14.1	64.6	19.9	84.5	na
EW10-SB02-18.5-20	18.5 – 20	na	na	na	na	na	2.71
EW10-SB02-19-20.5	19 – 20.5	0.1	53.7	39.2	7.0	46.2	na

Sample ID	Sampling Interval (ft)	Total Gravel (% dw)	Total Sand (% dw)	Total Silt (% dw)	Total Clay (% dw)	Total Fines (percent silt+clay) (% dw)	Specific Gravity (SU dw)
EW10-SB02-28.5-30	28.5 – 30	0.1 U	63.8	30.6	5.6	36.2	na
EW10-SB02-50-51.5	50 – 51.5	0.1	19.2	67.8	13.1	80.9	na
EW10-SB02-55-56.5	55 – 56.5	na	na	na	na	na	2.65
EW10-SC05-2.1	2.1	na	na	na	na	na	2.62
EW10-SC05-4.9	4.9	na	na	na	na	na	2.72
EW10-SC11-3	3	na	na	na	na	na	2.67
EW10-SC11-5	5	na	na	na	na	na	2.68
EW10-SC11-6.7	6.7	na	na	na	na	na	2.68
EW10-SC14-0.8	0.8	na	na	na	na	na	2.44
EW10-SC14-2.4	2.4	na	na	na	na	na	2.67
EW10-SC14-7.5	7.5	na	na	na	na	na	2.68
EW10-SC20-5.5	5.5	na	na	na	na	na	2.70
EW10-SC20-10.5	10.5	na	na	na	na	na	2.67
EW10-SC22-1	1	na	na	na	na	na	2.69
EW10-SC22-4	4	na	na	na	na	na	2.70
EW10-SC30-2.0	2	na	na	na	na	na	2.51
EW10-SC30-6.0	6	na	na	na	na	na	2.62
EW10-SC30-10.8	10.8	na	na	na	na	na	2.67
EW10-SC36-0.5	0.5	na	na	na	na	na	2.70
EW10-SC36-1.4	1.4	na	na	na	na	na	2.64
EW10-SC36-6	6	na	na	na	na	na	2.71
EW10-SC43-0.5	0.5	na	na	na	na	na	2.64
EW10-SC43-7.6	7.6	na	na	na	na	na	2.68
EW10-SC48-2	2	na	na	na	na	na	2.40
EW10-SC48-8.9	8.9	na	na	na	na	na	2.56
EW10-SC51-2	2	na	na	na	na	na	2.54
EW10-SC51-8.9	8.9	na	na	na	na	na	2.62
EW10-SC56-2	2	na	na	na	na	na	2.68
EW10-SC56-4	4	na	na	na	na	na	2.67
EW10-SC56-8.5	8.5	na	na	na	na	na	2.67
EW10-SC59-2	2	na	na	na	na	na	2.66
EW10-SC59-3.5	3.5	na	na	na	na	na	2.64
EW10-SC63-1.2	1.2	na	na	na	na	na	2.60
EW10-SC63-3	3	na	na	na	na	na	2.59

dw – dry weight
EW – East Waterway
ID – identification
na – not applicable
SU – standard unit

Geotechnical analyses were performed on sediment from 13 cores that were spatially distributed throughout the EW (EW10-SC05, EW10-SC11, EW10-SC14, EW10-SC20, EW10-SC22, EW10-SC30, EW10-SC36, EW10-SC43, EW10-SC48, EW10-SC51, EW10-SC56, EW10-SC59, and EW10-SC63). Analyses included Atterberg limits (i.e., liquid limit, plastic limit, and plastic index), specific gravity, and bulk density (dry and wet); results are summarized by sampling interval in Table 4-11. Sample depths are also shown on the core logs (Appendix B). Geotechnical results for the borings collected using a hollow-stem auger in the mound area outside of Slip 27 are provided in Appendix I.

Table 4-11. Summary of geotechnical results for EW subsurface sediment samples

Sample ID	Sampling Interval (ft)	Liquid Limit (% dw)	Plastic Limit (% dw)	Plasticity Index (% dw)	Bulk Density		Moisture Content (geotechnical) (% dw)
					Dry (pcf)	Wet (pcf)	
EW10-SB01-2-3.5	2 – 3.5	57.5	31.5	26.0	na	na	84.74
EW10-SB01-5.5-7	5.5 – 7	na	na	na	na	na	20.58
EW10-SB01-9-10.5	9 – 10.5	na	na	na	na	na	7.20
EW10-SB01-10.5-12	10.5 – 12	na	na	na	na	na	28.42
EW10-SB01-14.5-16	14.5 – 16	na	na	na	na	na	26.82
EW10-SB01-18-19.5	18 – 19.5	na	na	na	na	na	32.52
EW10-SB01-21.5-23	21.5 – 23	na	na	na	na	na	27.34
EW10-SB01-23-24.5	23 – 24.5	na	na	na	na	na	33.57
EW10-SB01-26.5-28	26.5 – 28	na	na	na	na	na	27.09
EW10-SB01-28-29.5	28 – 29.5	na	na	na	na	na	25.92
EW10-SB01-30.5-32	30.5 – 32	na	na	na	na	na	31.78
EW10-SB01-34-35.5	34 – 35.5	na	na	na	na	na	40.40
EW10-SB01-40.5-42	40.5 – 42	na	na	na	na	na	33.57
EW10-SB01-45-46.5	45 – 46.45	na	na	na	na	na	29.36
EW10-SB01-51.5-53	51.5 – 53	na	na	na	na	na	35.27
EW10-SB01-59-60.5	59 – 60.5	na	na	na	na	na	34.92
EW10-SB02-2-4	2 – 4	na	na	na	na	na	91.73
EW10-SB02-6-8	6 – 8	37.3	22.3	15.0	na	na	56.16
EW10-SB02-14-15.5	14 – 15.5	na	na	na	na	na	49.48
EW10-SB02-18.5-20	18.5 – 20	na	na	na	na	na	36.21
EW10-SB02-19-20.5	19 – 20.5	na	na	na	na	na	37.20
EW10-SB02-22.5-24	22.5 – 24	na	na	na	na	na	34.83
EW10-SB02-28.5-30	28.5 – 30	na	na	na	na	na	35.45
EW10-SB02-34.5-36	34.5 – 36	na	na	na	na	na	37.45
EW10-SB02-40-41.5	40 – 41.5	na	na	na	na	na	41.56

Sample ID	Sampling Interval (ft)	Liquid Limit (% dw)	Plastic Limit (% dw)	Plasticity Index (% dw)	Bulk Density		Moisture Content (geotechnical) (% dw)
					Dry (pcf)	Wet (pcf)	
EW10-SB02-50-51.5	50 – 51.5	na	na	na	na	na	37.53
EW10-SB02-55-56.5	55 – 56.5	na	na	na	na	na	37.25
EW10-SB02-60-61.5	60 – 61.5	33.8	26.7	7.1	na	na	40.58
EW10-SC05-2.1	2.1	na	na	na	77.7	95.5	22.94
EW10-SC05-4.9	4.9	na	na	na	81.4	101.2	24.30
EW10-SC11-3	3	88.7	31.4	57.3	37.8	79.4	110.3
EW10-SC11-5	5	61.5	22.5	39.0	52.7	84.2	59.69
EW10-SC11-6.7	6.7	na	na	na	83.4	105.6	26.56
EW10-SC14-0.8	0.8	72.3	25.8	46.5	34.1	66.7	95.70
EW10-SC14-2.4	2.4	na	na	na	92.4	106.6	15.36
EW10-SC14-7.5	7.5	na	na	na	78.2	99.8	27.67
EW10-SC20-5.5	5.5	32.0	24.2	7.8	84.0	114.3	36.01
EW10-SC20-10.5	10.5	na	na	na	83.7	107.8	28.73
EW10-SC22-1	1	na	na	na	89.0	119.4	34.23
EW10-SC22-4	4	na	na	na	85.4	110.3	29.13
EW10-SC30-2.0	2	68.5	29.4	39.1	39.8	72.4	82.02
EW10-SC30-6.0	6	na	na	na	80.6	106.6	32.21
EW10-SC30-10.8	10.8	na	na	na	83.3	107.1	28.59
EW10-SC36-0.5	0.5	na	na	na	96.6	109.7	13.61
EW10-SC36-1.4	1.4	na	na	na	78.4	103.7	32.28
EW10-SC36-6	6	na	na	na	85.0	107.9	26.96
EW10-SC43-0.5	0.5	na	na	na	83.4	117.2	40.55
EW10-SC43-7.6	7.6	na	na	na	98.8	124.6	26.17
EW10-SC48-2	2	78.7	26.0	52.8	46.9	85.2	81.61
EW10-SC48-8.9	8.9	na	na	na	82.0	107.6	31.27
EW10-SC51-2	2	na	na	na	67.6	93.7	38.52
EW10-SC51-8.9	8.9	na	na	na	69.8	90.5	29.64
EW10-SC56-2	2	na	na	na	54.4	72.0	32.46
EW10-SC56-4	4	na	na	na	75.1	102.6	36.62
EW10-SC56-8.5	8.5	na	na	na	84.8	111.9	31.92
EW10-SC59-2	2	na	na	na	81.9	106.0	29.46
EW10-SC59-3.5	3.5	na	na	na	80.3	107.3	33.55
EW10-SC63-1.2	1.2	na	na	na	60.2	81.6	35.56
EW10-SC63-3	3	37.0	28.8	8.2	69.6	98.9	42.06

dw – dry weight
EW – East Waterway
ID – identification
na – not analyzed
pcf – pounds per cubic foot

4.3 CHEMICAL DATA VALIDATION RESULTS

The chemical analyses were conducted using the sample delivery group (SDG) assignments listed in Table 4-12. Independent data validation was performed on all results by EcoChem. A minimum of 20% of sediment results per analysis underwent full-level data validation; the rest of the sediment results underwent summary-level data validation. The level of data validation performed by EcoChem met the requirements specified in the subsurface sediment QAPP (Windward 2010).

The data validation included a review of all quality control summary forms, including initial calibration, continuing calibration verification (CCV), internal standard, surrogate, laboratory control sample (LCS), laboratory control sample duplicate (LCSD), matrix spike/ matrix spike duplicate (MS/MSD), standard reference material (SRM), and interference check sample summary forms. The majority of the data did not require qualification or were qualified with a J, indicating an estimated value. Twenty-six results for twelve chemicals were rejected as a result of data validation. Rejected results will not be used for any purpose. Based on the information reviewed, the overall data quality was considered acceptable for all uses, as qualified. Issues that resulted in the qualification of data are summarized below. Detailed information regarding every qualified sample is presented in Appendix D.

Table 4-12. Level of data validation performed and numbers of samples in each SDG for EW subsurface sediment samples

SDG	Laboratory	Validation Level	Numbers of Sediment Samples Analyzed								
			PCBs	SVOCs	Mercury	Other Metals	Butyltins	Pesticides	TOC and Total Solids	Grain Size	Geotechnical Parameters[a]
QP28	ARI	full	4	4	4	4	0	0	4	4	0
QP39	ARI	full	3	3	3	3	0	0	3	3	0
QL24	ARI	summary	0	0	0	0	0	0	0	0	5
QL26	ARI	compliance screening	1	1	1	1	1	1	0	0	0
QL56	ARI	full	18	18	18	18	0	0	18	18	0
QL84	ARI	summary	0	0	0	0	0	0	0	0	4
QL86	ARI	full	20	20	20	20	0	0	20	20	0
QM30	ARI	summary	20	20	20	20	0	0	20	20	0
QM44	ARI	full	0	0	0	0	0	0	0	0	7
QM57	ARI	summary	20	20	20	20	0	0	24	24	0
QM68	ARI	full	0	0	0	0	18	0	0	0	0
QM75	ARI	summary	0	0	0	0	0	0	0	0	4
QM80	ARI	summary	14	14	14	14	0	0	14	14	0
QN06	ARI	summary	20	20	20	20	0	0	20	20	0
QN38	ARI	summary	18	18	18	18	0	0	18	18	0
QN43	ARI	summary	0	0	0	0	0	0	0	0	11
QO05	ARI	full/summary	0	0	0	0	10S	8 F	0	0	0
QO07	ARI	summary	0	0	0	0	14	2	0	0	0
RB27	ARI	full/summary	11 S	6 F	20S	2 S	0	0	20 S	0	0
RB28	ARI	full/summary	10 S	9 F	20 F	5 F	0	0	21 F	0	0
RB29	ARI	full/summary	12 F	4 F	14 S	3 S[c]	0	0	20 S	0	0
RB47	ARI	summary	0	0	0	0	0	0	6	0	0
RH22	ARI	summary	7	3	0	0	0	0	0	0	0

SDG	Laboratory	Validation Level	Numbers of Sediment Samples Analyzed								
			PCBs	SVOCs	Mercury	Other Metals	Butyltins	Pesticides	TOC and Total Solids	Grain Size	Geotechnical Parameters[a]
RN92	ARI	summary	0	1[d]	0	0	0	0	0	0	0
K1008332	CAS	full	0	0	0	0	0	2	0	0	0
Percentage of samples that underwent full validation			32%	40%	44%	34%	42%	77%	31%	32%	23%

[a] Geotechnical parameters included specific gravity, bulk density (wet and dry), and Atterberg limits.
[b] Two samples from SDG RB27 were analyzed for cadmium.
[c] One sample from SDG RB29 was analyzed for cadmium.
[d] One sample from SDG RN92 was analyzed for PAHs.

ARI – Analytical Resources, Inc.
CAS – Columbia Analytical Services, Inc.
F – full validation
PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
S – summary validation
SVOC – semivolatile organic compound
TOC – total organic carbon
SDG – sample delivery group
SVOC – semivolatile organic compound

4.3.1 SVOCs and organometals

- One hundred and ten results for benzyl alcohol were rejected because of extremely low LCS recoveries (less than 10%). This chemical is known to be difficult to quantify in sediment, so no re-analysis was performed.
- Results for the following chemicals were rejected because of extremely low MS/MSD recoveries (less than 10%): 2 results for 4-chloroaniline; 3 results for aniline; 2 results for 3,3-dichlorobenzidine; 4 results for hexachlorocyclopentadiene; 2 results for benzyl alcohol; 2 results for pentachlorophenol; and 1 result each for 3-nitroaniline, 4-nitroaniline, 4-nitrophenol, and 4-chloro-3-methylphenol. Associated LCS recoveries were acceptable, so no re-analysis was performed. Only the results for the sample spiked to create the MS/MSD were rejected; other samples in the batch were not qualified.
- Results for the following two chemicals were requalified as non-detected (U-qualified) because of method blank contamination: BEHP (33 results ranging from 17 to 880 µg/kg dw), pyrene (1 result at 37 µg/kg dw).
- Results for various chemicals were qualified as estimated (J- or UJ-qualified) because CCV, LCS/LCSD, MS/MSD, SRM, or surrogate percent recoveries or relative percent differences (RPDs) were outside of control limits. Results qualified as estimated included the following: 111 results for pentachlorophenol, 62 results for 2,4-dimethylphenol, 61 results for hexachlorocyclopentadiene, 40 results for dibenzo(a,h)anthracene, 32 results for benzyl alcohol, 20 results for 2-nitrophenol, 15 results for bis(2-chloroisopropyl)ether, 14 results for dibutyltin, 14 results for tributyltin, 11 results for n-nitrosodiphenylamine, 9 results for butyl benzyl phthalate, 7 results for fluoranthene, 3 results for benzo(g,h,i)perylene, 3 results for dimethylphthalate, 2 results for 1,2,4-trichlorobenzene, 2 results for 2-methylphenol, 2 results for chrysene, 2 results for indeno(1,2,3-cd)pyrene, and 1 result each for 1-methylnaphthalene, 2,4,6-trichlorophenol, 2-methylnaphthalene, 3-nitroaniline, 4-chloroaniline, 4-nitroaniline, acenaphthene, aniline, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzoic acid, carbazole, dibenzofuran, di-n-octyl phthalate, fluorene, naphthalene, phenanthrene, and phenol.
- Fifteen results for dibenzo(a,h)anthracene were J- or UJ-qualified as estimated because the associated internal standard recoveries were outside of control limits.
- Five other SVOCs were qualified by ARI to indicate that chromatographic interference in the sample prevented adequate resolution of the compound at the standard RLs (Y-qualified). The Y-qualified results were U-qualified during data validation, including: 32 results for n-nitrosodiphenylamine, 11 results for n-nitroso-di-n-propylamine, 2 results for 2,4-dimethylphenol, and 1 result each for 2-methylphenol and pentachlorophenol.

4.3.2 Metals

- Results for various chemicals were J- or UJ-qualified as estimated because MS/MSD recoveries or laboratory replicate RPDs were outside of control limits. J- or UJ-qualified results included: 144 results for antimony, 14 results for arsenic, 32 results for copper, 14 results for lead, 34 results for mercury, and 18 results for zinc.

4.3.3 Pesticides

- Two results for aldrin were rejected because the internal standard recoveries for aldrin-$^{13}C_{12}$ were outside of control limits.
- Two results for delta-benzene hexachloride (BHC) were rejected because of extremely low LCS recoveries (less than 10%).
- The RPDs between the results of dual-column analyses for 4,4′-DDE and 2,4′-DDE, in one sample for each chemical, were greater than the control limit of ± 40%. These results were J-qualified to indicate estimated concentrations.
- One result for 4,4′-DDD was J-qualified as estimated because the result exceeded the calibrated linear range of the analytical instrument.
- Four chemicals were qualified by ARI to indicate that non-target background interference in the sample prevented adequate resolution of the compound at the standard RLs (Y-qualified). The Y-qualified results were U-qualified during data validation, including: 4 results for 4,4′-DDT, 2 results for gamma chlordane, 1 result for delta-BHC, and 1 result for heptachlor epoxide.
- One result for hexachlorobenzene was U-qualified because of method blank contamination.

4.3.4 PCBs

- The RPDs between the results of dual-column analyses for several Aroclors were greater than the control limit of ± 40%. These results were J- or NJ-qualified to indicate estimated concentrations. Qualified results included: 9 results for Aroclor 1254, 8 results for Aroclor 1248, and 1 result for Aroclor 1242.
- One result for Aroclor 1260 was J-qualified as estimated because MS/MSD recoveries were outside of control limits.
- When more than one Aroclor is present in a sample, the potential exists for a high bias from the contribution of one Aroclor to another caused by common peaks or peaks that cannot be completely resolved. Analytical peaks are selected, and Aroclor ID is made based on the best resolution possible for that particular sample. In this analysis, Aroclor concentrations were reported based on the individual Aroclors that provided the best match to the observed sample pattern. Thirteen results for two different Aroclors were Y-qualified by the laboratory as

non-detects at elevated RLs because of overlapping Aroclor patterns. The Y-qualifier indicated that chromatographic interference in the sample prevented adequate resolution of the compound at the standard RLs. These results were U-qualified during data validation.

4.3.5 Conventionals and grain size

No qualification of data was necessary.

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Oversize Maps

Wind Ward environmental LLC

N

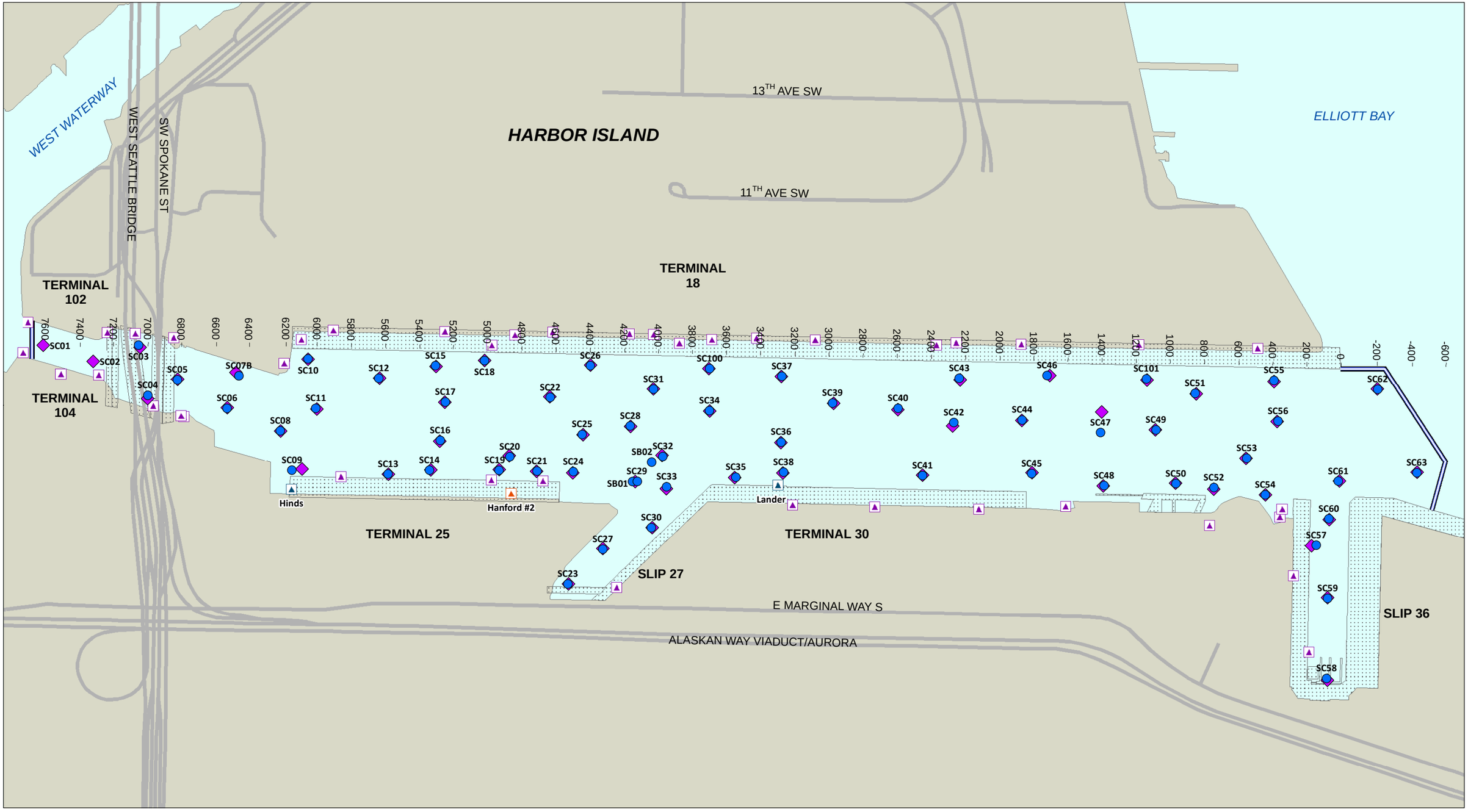
0 300 600 Feet

0 90 180 Meters

- Subsurface sampling location
- CSO
- Storm drain
- CSO/storm drain
- Dock/pier/bridge
- Road
- East Waterway Study Area Boundary

Map 2-1. EW subsurface sediment sampling locations

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 2-01 4385 Subsurface sampling locations.mxd



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N

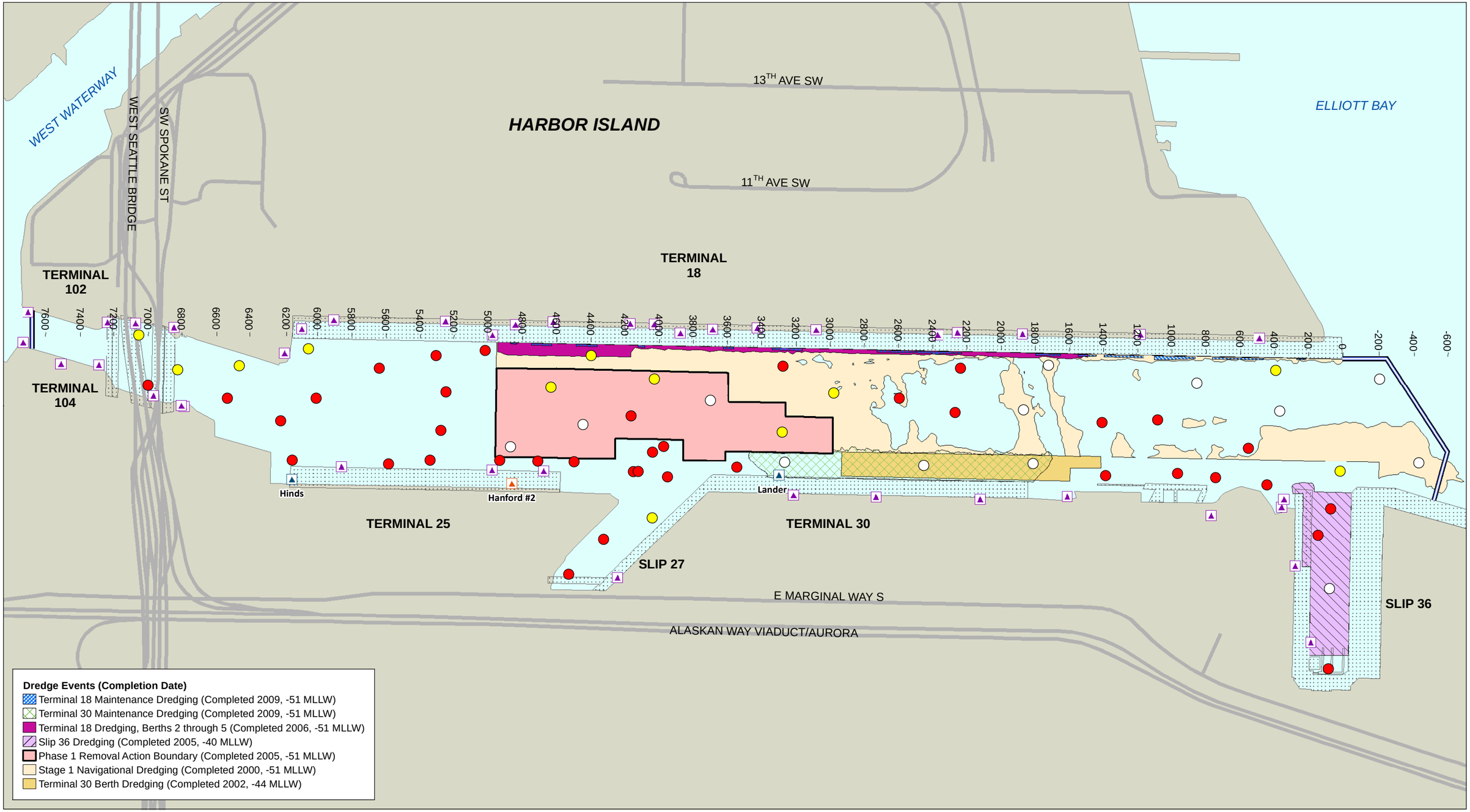
0 300 600 Feet

0 90 180 Meters

- Actual sampling location
- Proposed sampling location
- CSO
- Storm drain
- CSO/storm drain
- Dock/pier/bridge
- Road
- East Waterway Study Area Boundary

Map 2-2. EW subsurface sediment target and actual sampling locations

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 2-02 4152 Subsurface actual and target locations.mxd



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N

0 300 600 Feet

0 90 180 Meters

Maximum exceedance status

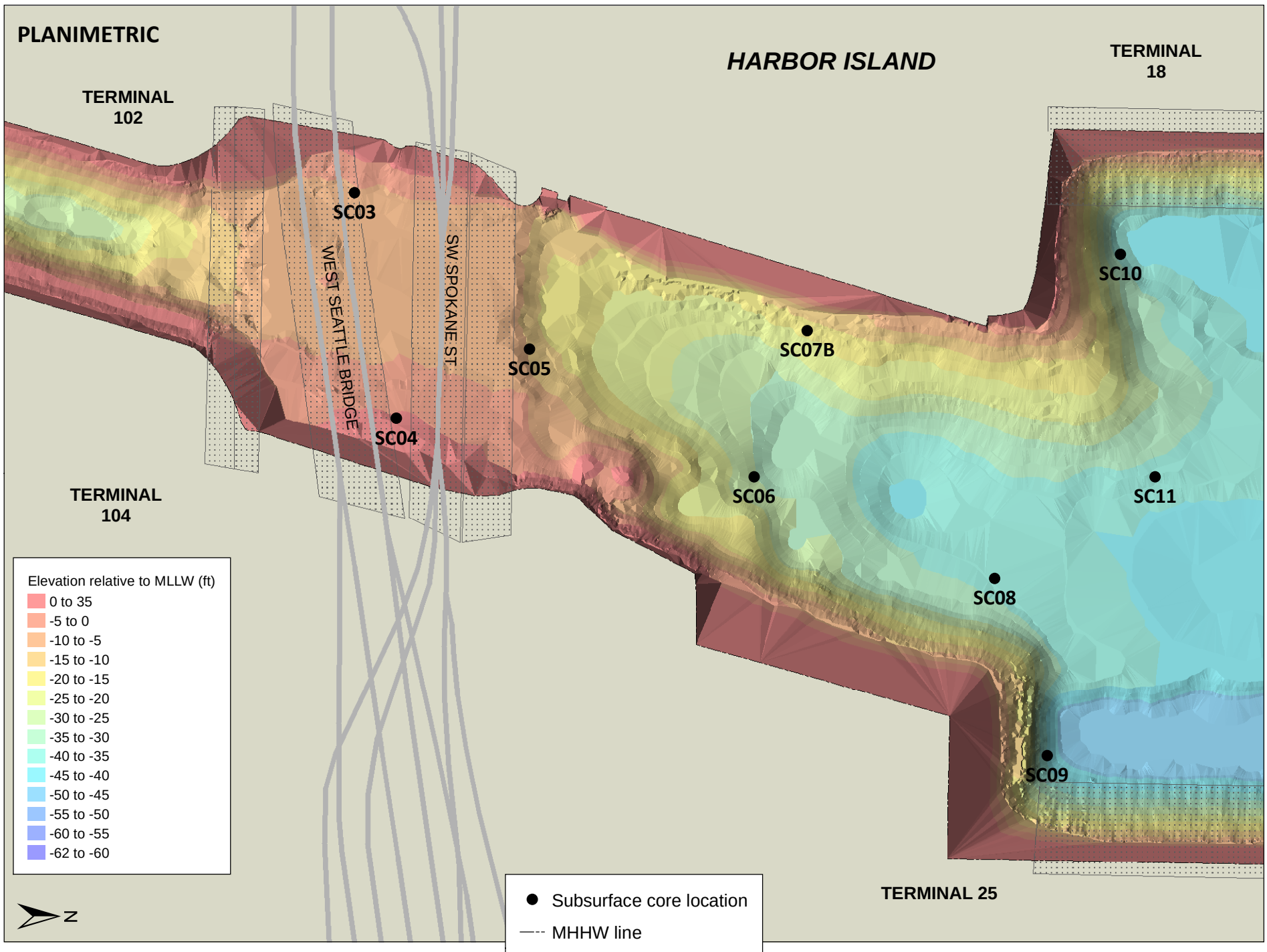
- > CSL/ML, detect
- > SQS/SL and ≤ CSL/ML, detect
- ≤ SQS/SL or non-detect

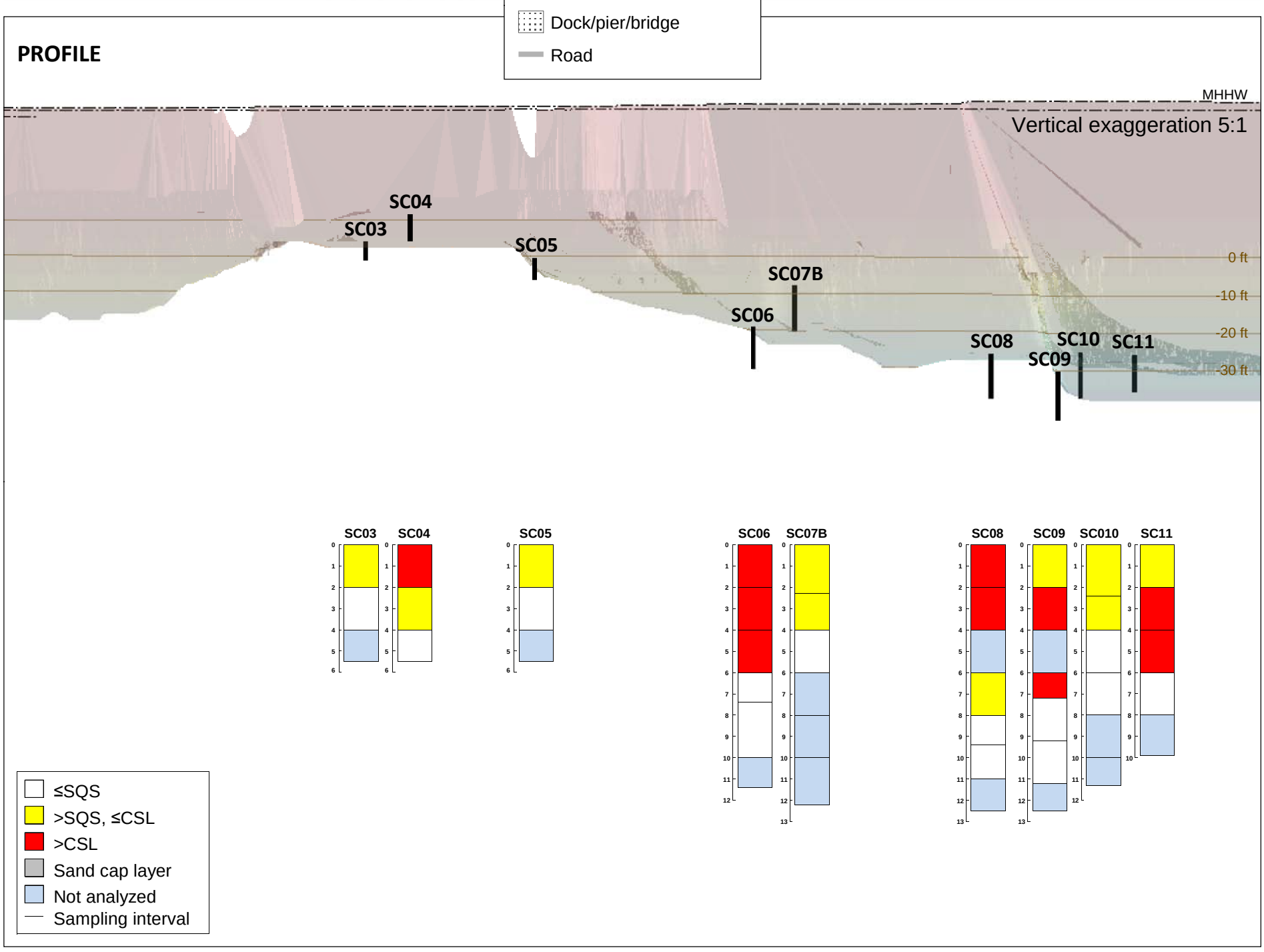
- CSO
- Storm drain
- CSO/storm drain

- Dock/pier/bridge
- Road
- East Waterway Study Area Boundary

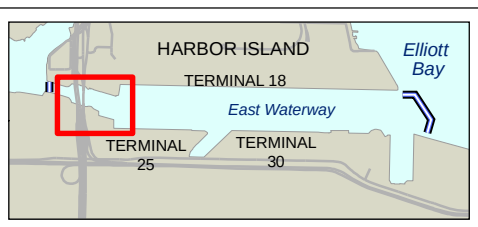
Map 4-1. SMS status at EW subsurface sediment sampling locations

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-01 4548 Max SMS status at subsurface sampling locations.mxd





Wind Ward environmental LLC

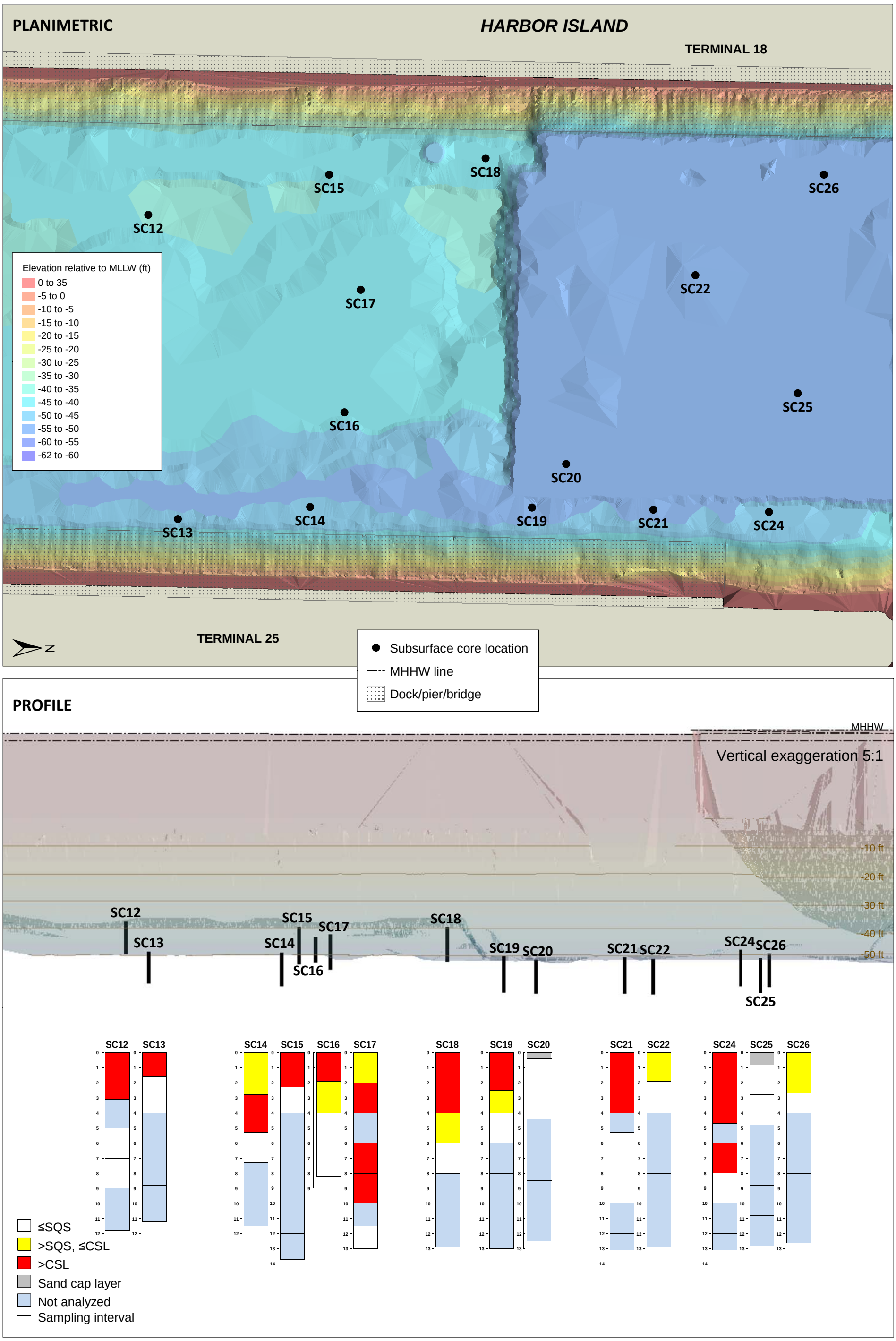


0 50 100 Feet

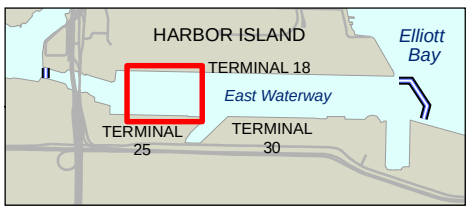
0 10 20 Meters

Map 4-2a. EW subsurface results compared with SMS/DMMP values for all detected results

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-02a 4381 Subsurface cores and SMS.mxd



Wind Ward environmental LLC



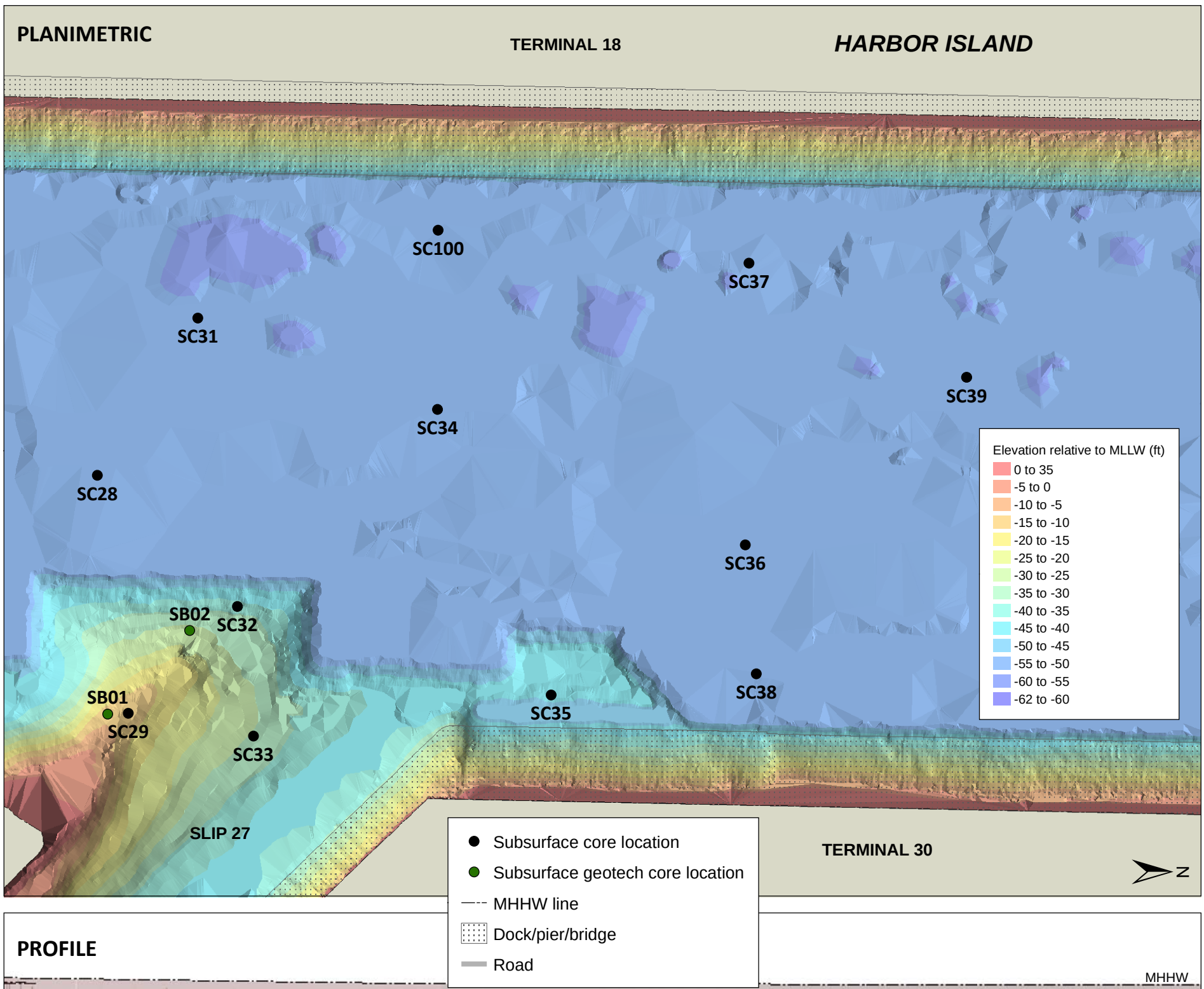
0 50 100 Feet

0 10 20 Meters

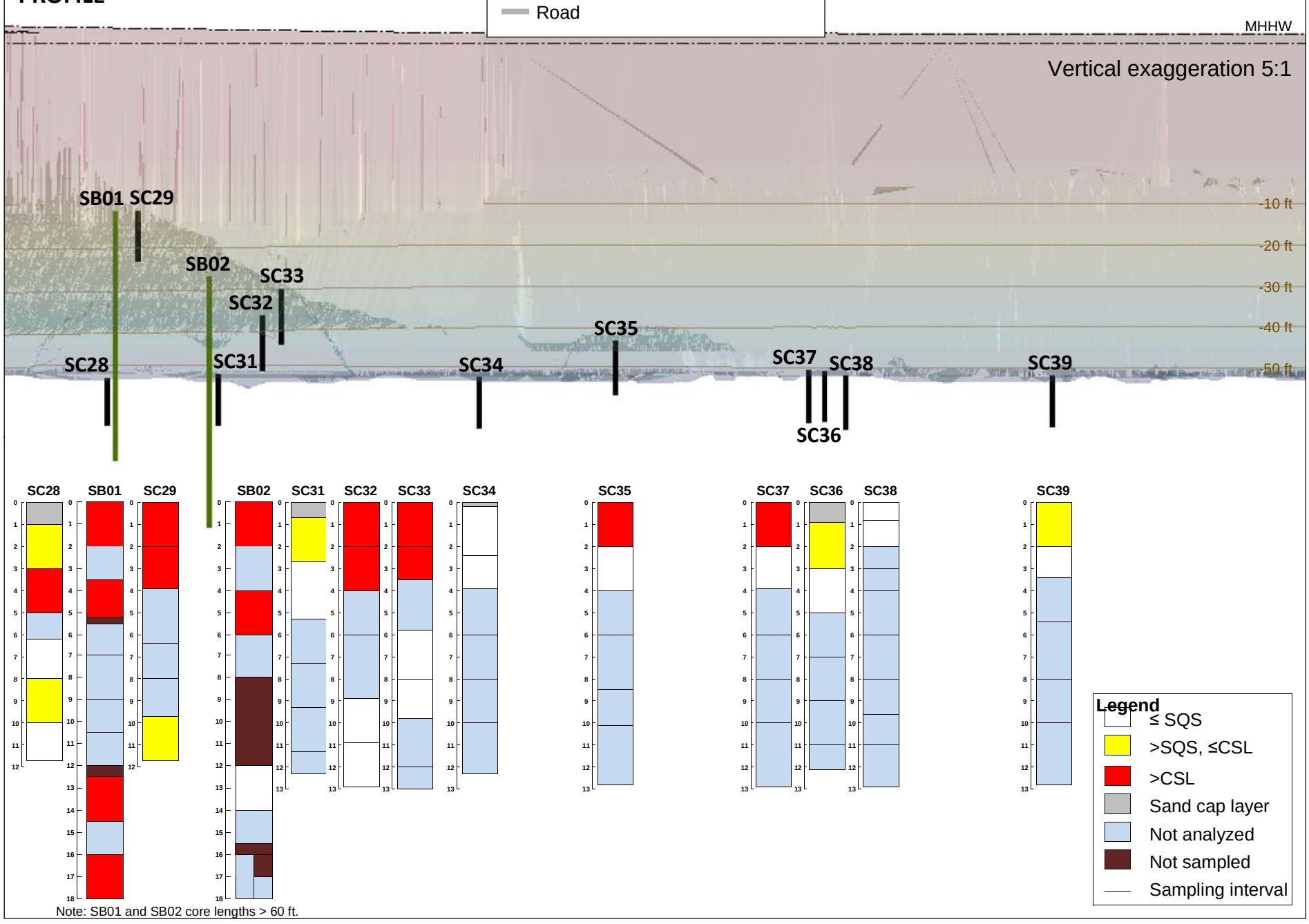
Map 4-2b. EW subsurface results compared with SMS/DMMP values for all detected results

Prepared by craigh, 3/31/2011; W:\Projects\00-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-02b 4381 Subsurface cores and SMS.mxd

PLANIMETRIC



PROFILE



Note: SB01 and SB02 core lengths > 60 ft.

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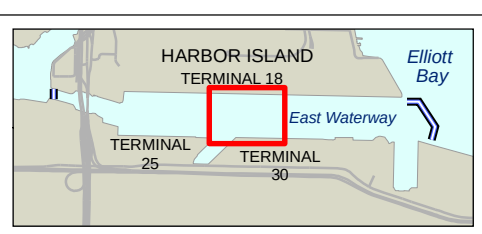
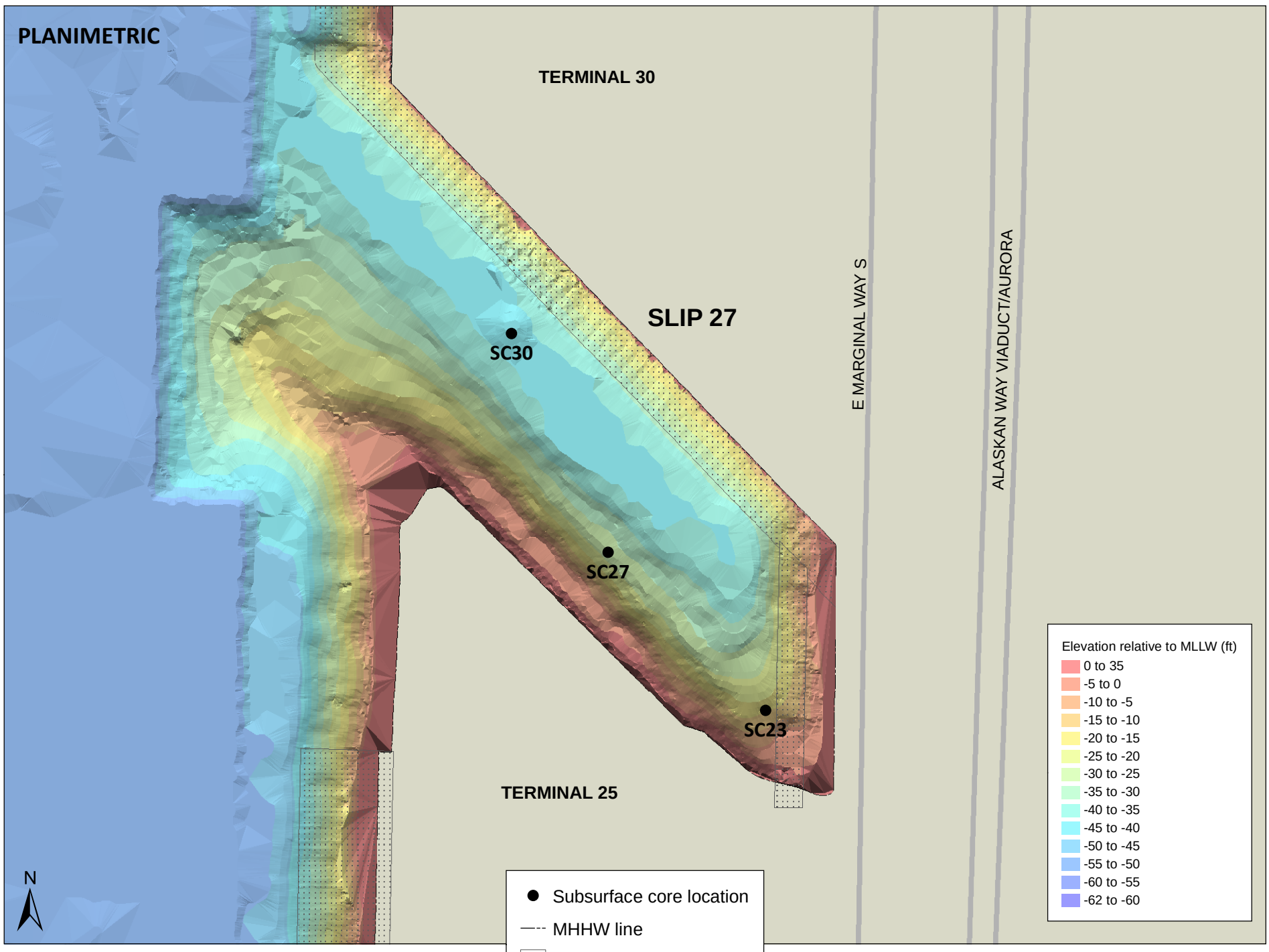


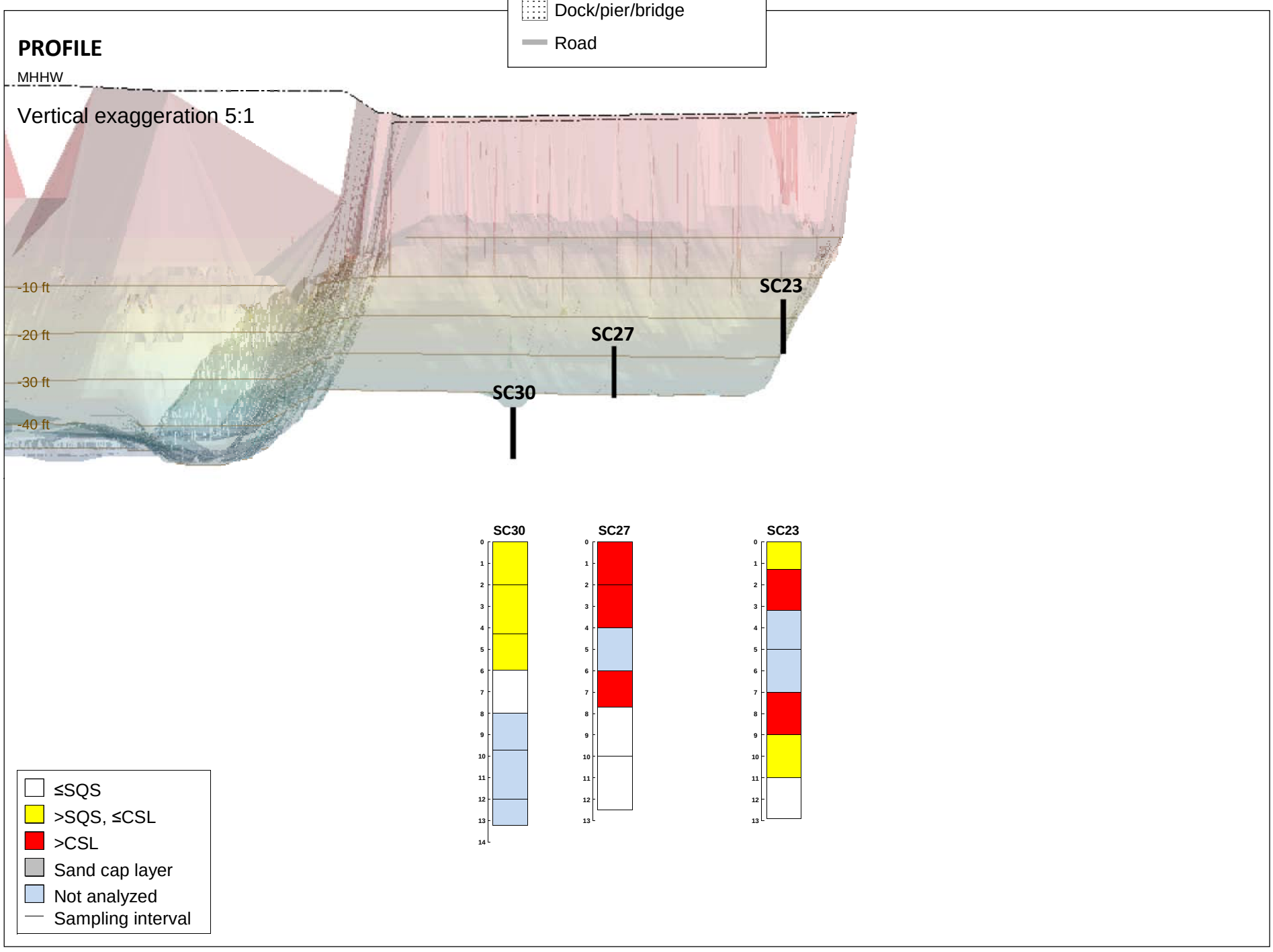
0 50 100 Feet

0 10 20 Meters

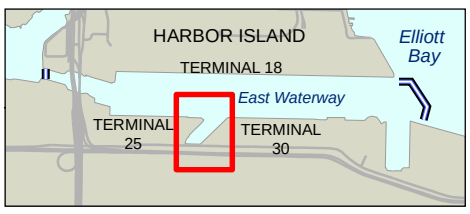
Map 4-2c. EW subsurface results compared with SMS/DMMP values for all detected results

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-02c 4381 Subsurface cores and SMS.mxd





Wind Ward environmental LLC



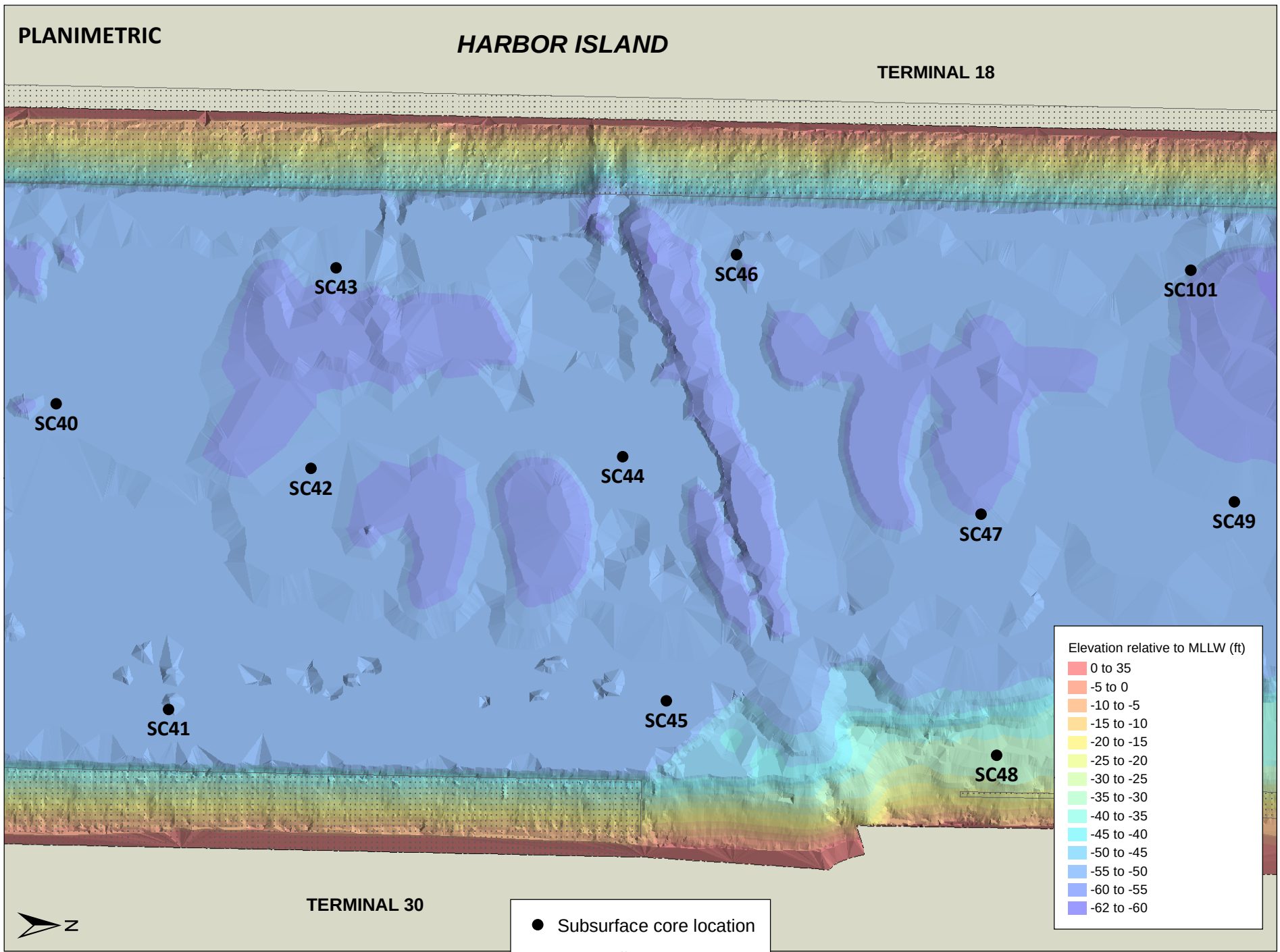
0 50 100 Feet

0 10 20 Meters

Map 4-2d. EW subsurface results compared with SMS/DMMP values for all detected results

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-02d 4381 Subsurface cores and SMS.mxd

PLANIMETRIC



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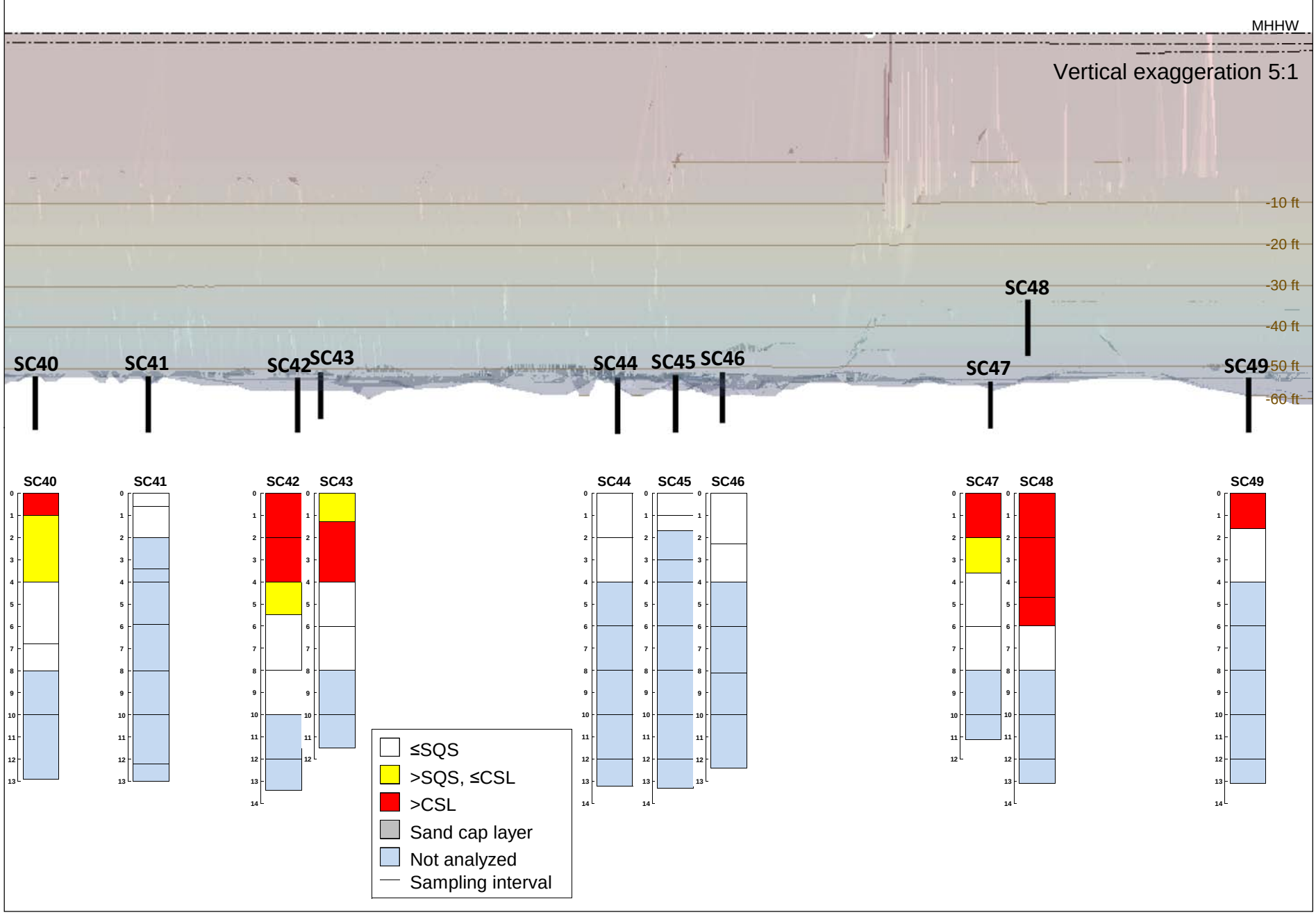

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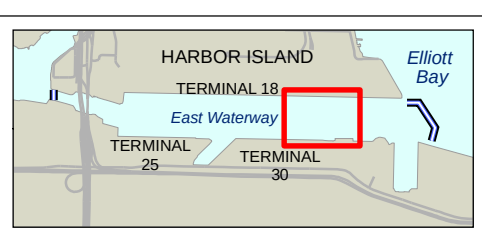
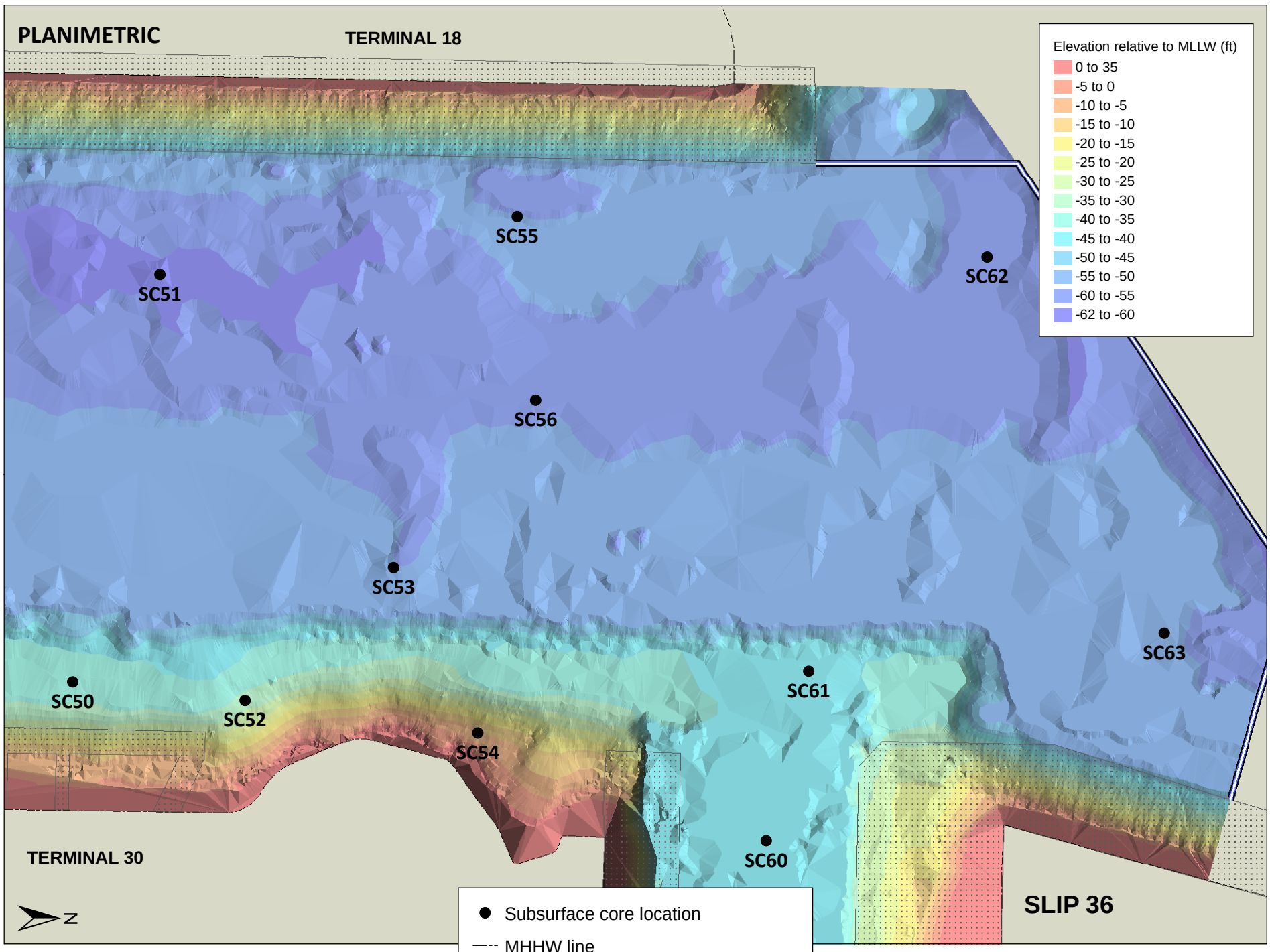


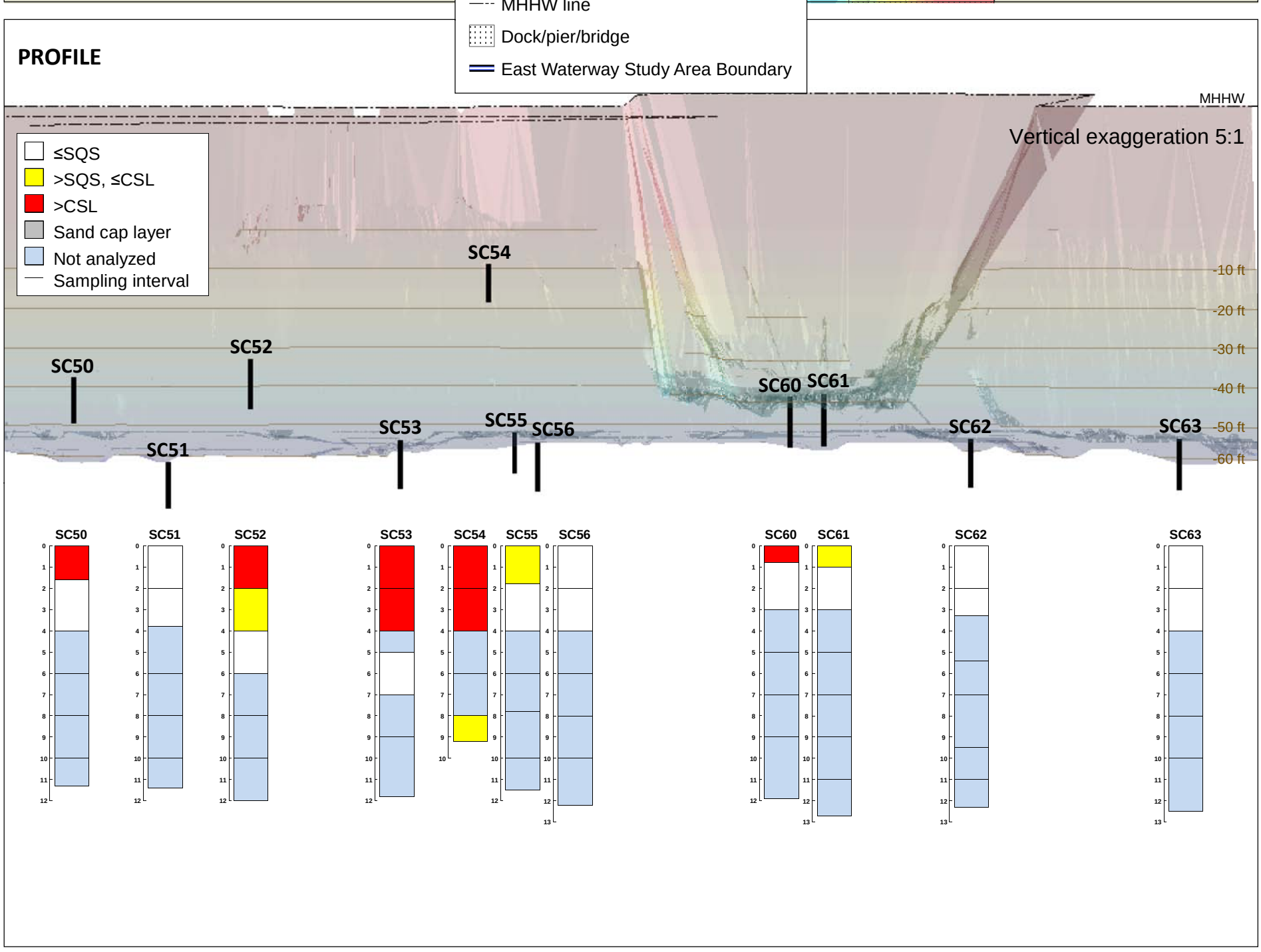
0 50 100 Feet

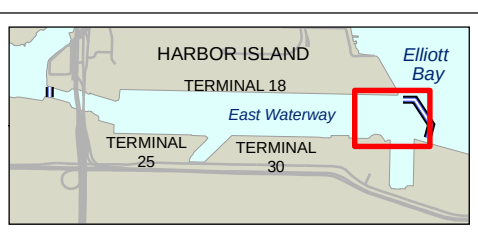
0 10 20 Meters

Map 4-2e. EW subsurface results compared with SMS/DMMP values for all detected results

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-02e 4381 Subsurface cores and SMS.mxd





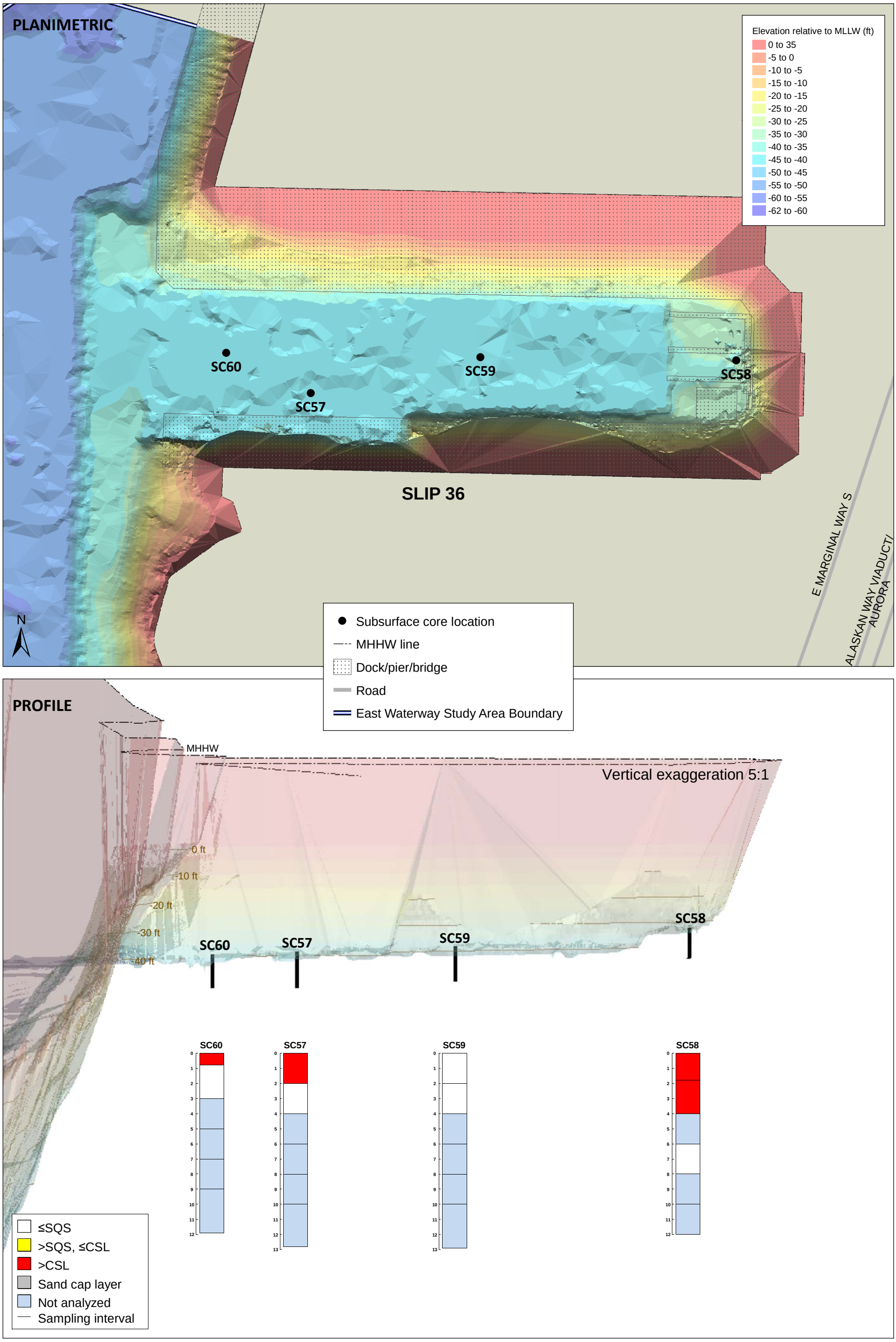


0 50 100 Feet

0 10 20 Meters

Map 4-2f. EW subsurface results compared with SMS/DMMP values for all detected results

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-02f 4381 Subsurface cores and SMS.mxd



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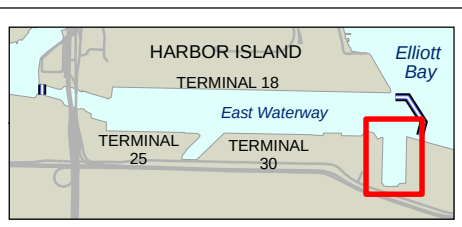

0 50 100 Feet

0 10 20 Meters

Map 4-2g. EW subsurface results compared with SMS/DMMP values for all detected results

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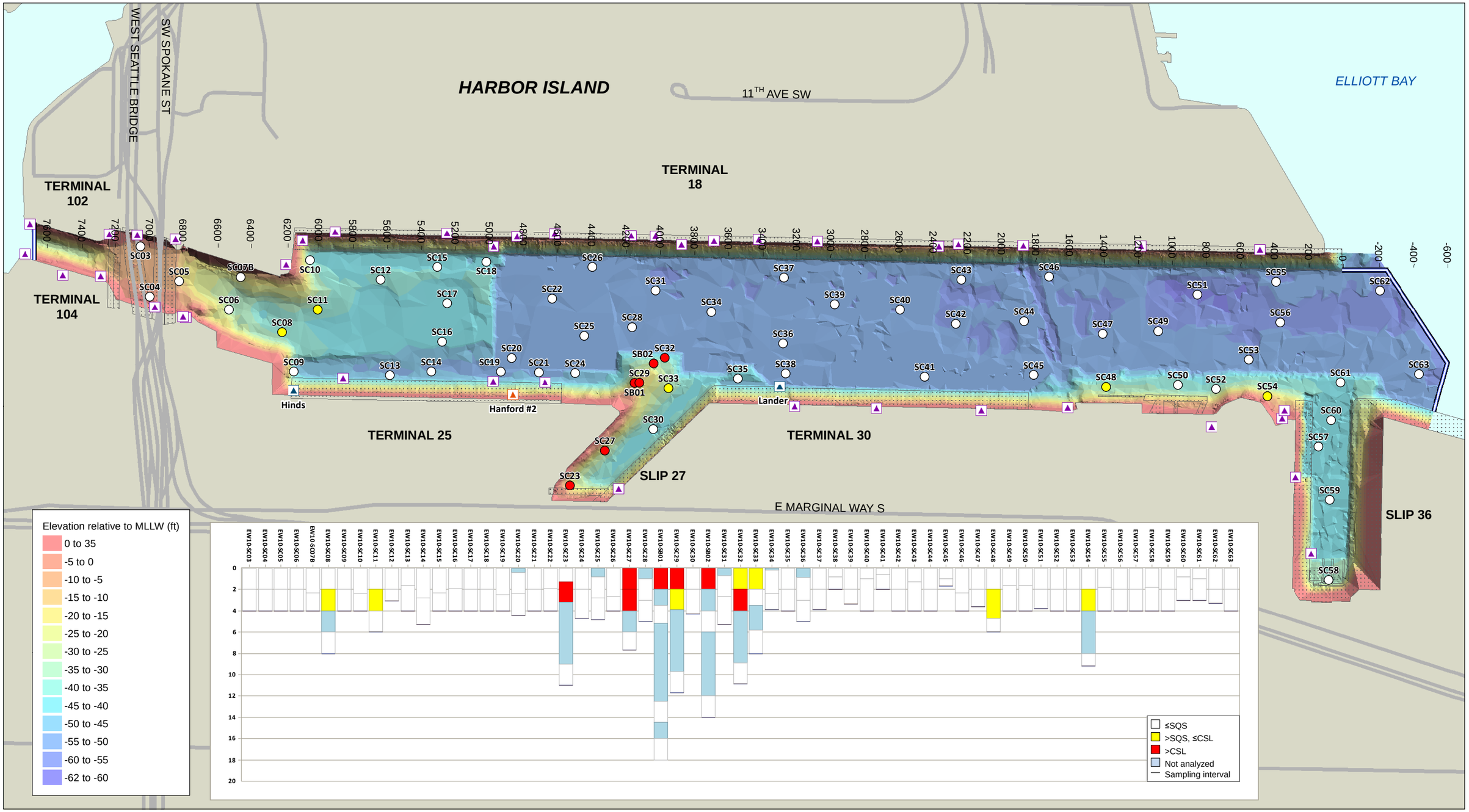


Wind Ward environmental LLC

0 300 600 Feet

0 90 180 Meters

N

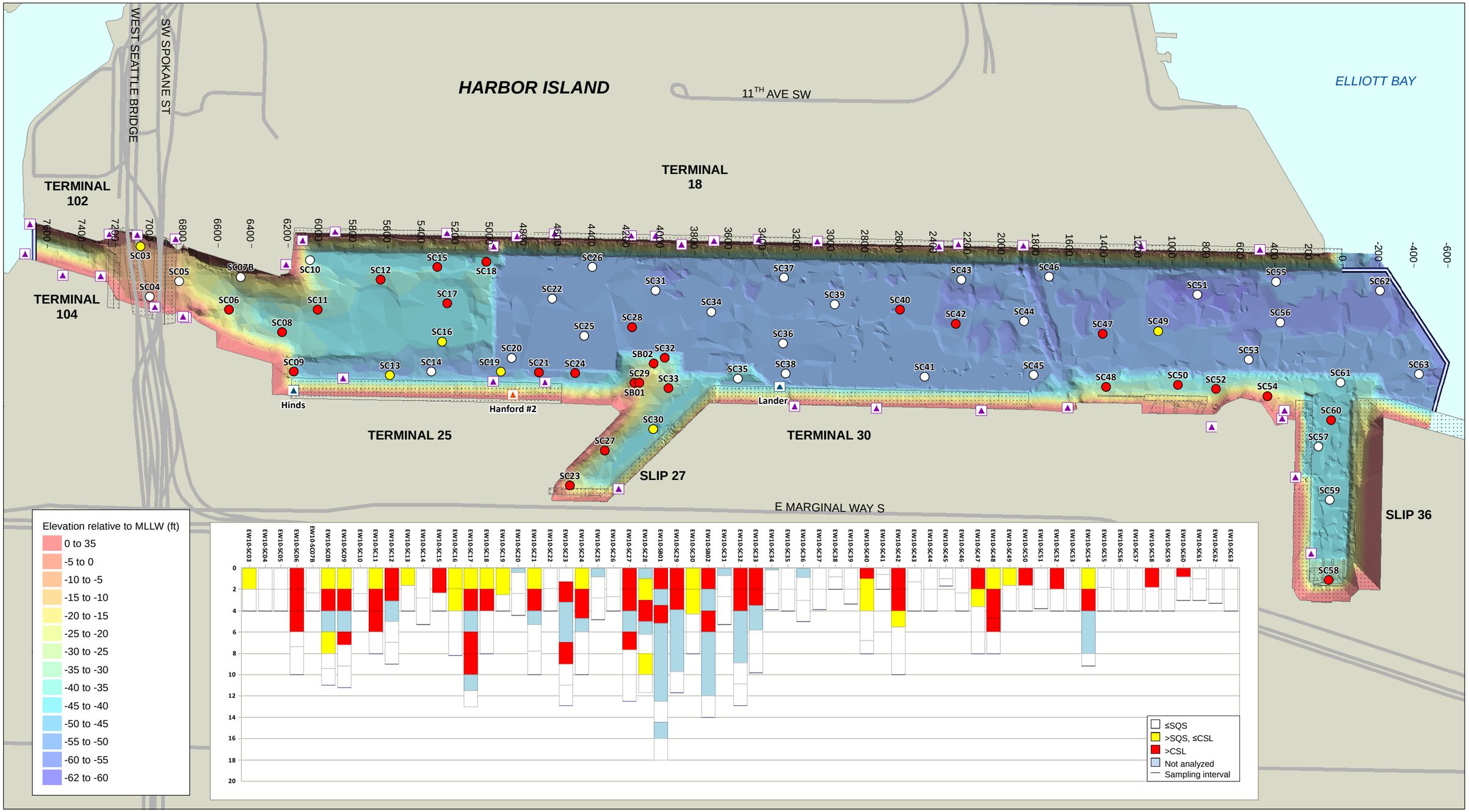
Maximum SQS/CSL category for cadmium in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS or non-detect

CSO
Storm drain
CSO/storm drain
Road
Dock/pier/bridge
East Waterway Study Area Boundary

Map 4-3. EW subusrface sediment cadmium results compared with SMS criteria

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-03 4401 Cadmium SMS in subsurface sampling locations.mxd



Wind Ward environmental LLC

0 300 600 Feet

0 90 180 Meters

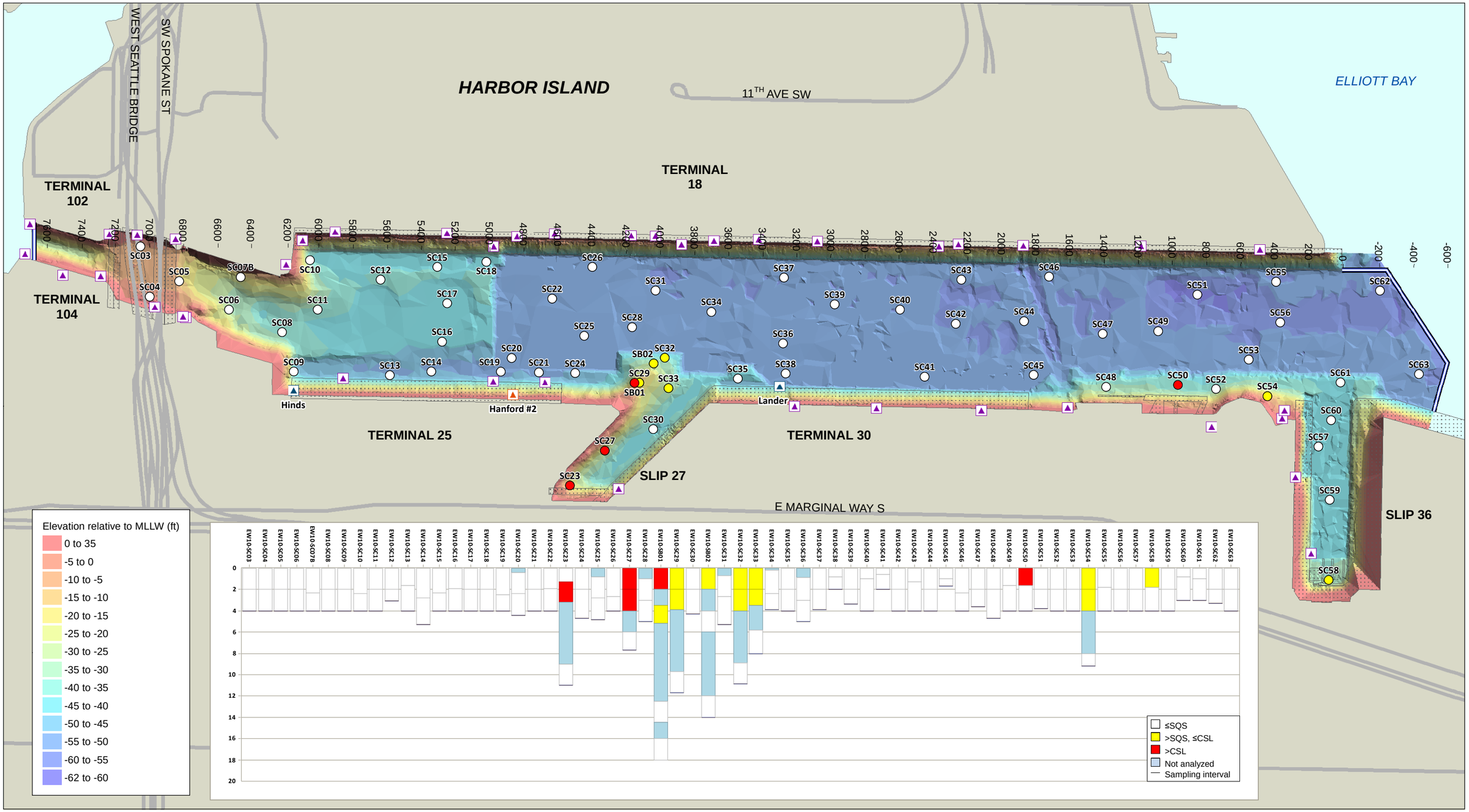
Maximum SQS/CSL category for mercury in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS or non-detect

CSO
Storm drain
CSO/storm drain
Road
Dock/pier/bridge
East Waterway Study Area Boundary

Map 4-4. EW subusrface sediment mercury results compared with SMS criteria

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-04 4395 Hg SMS in subsurface sampling locations.mxd



Wind Ward environmental LLC

0 300 600 Feet

0 90 180 Meters

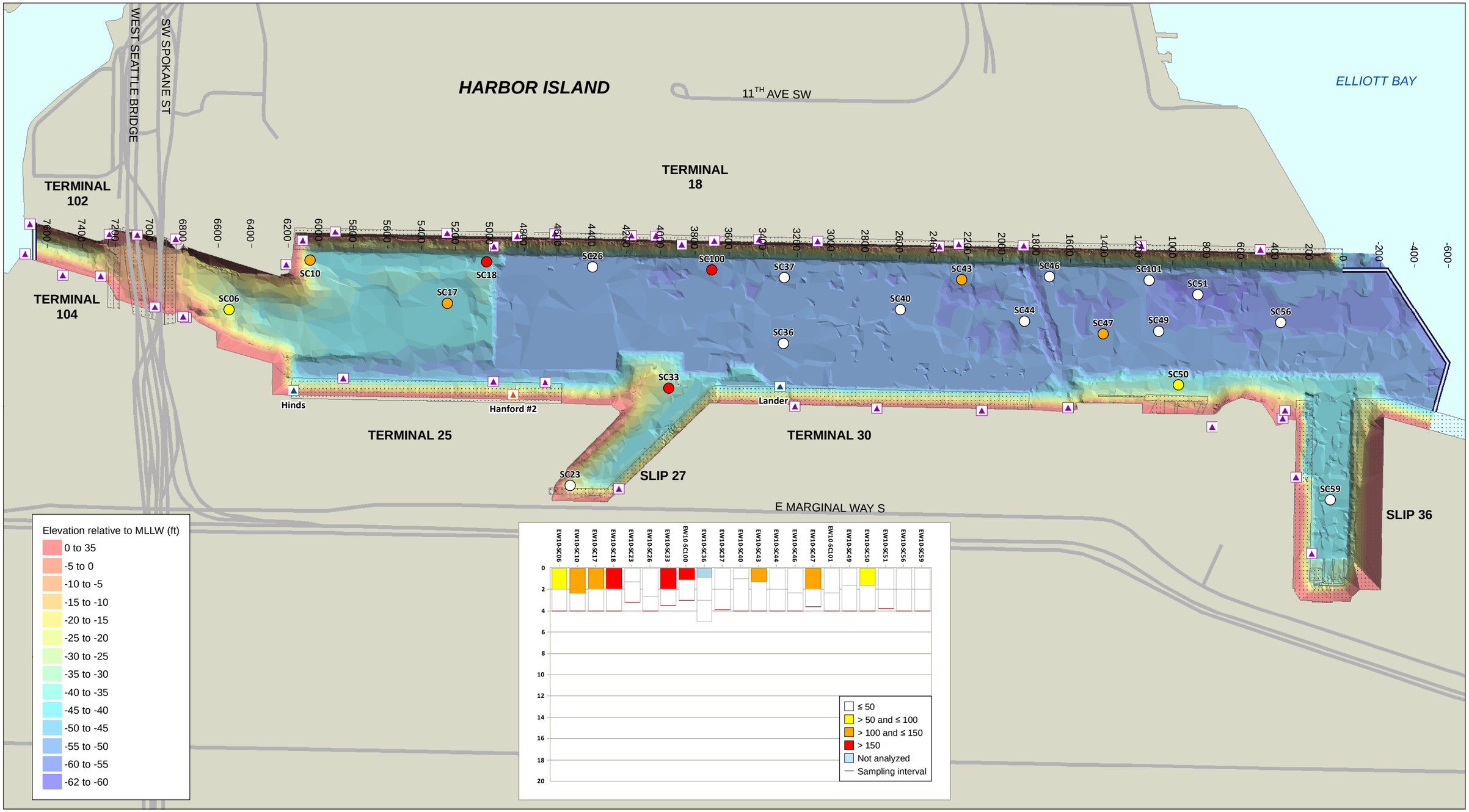
Maximum SQS/CSL category for zinc in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS or non-detect

CSO
Storm drain
CSO/storm drain
Road
Dock/pier/bridge
East Waterway Study Area Boundary

Map 4-5. EW subusrface sediment zinc results compared with SMS criteria

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-05 4400 Zinc SMS in subsurface sampling locations1.mxd



Wind Ward environmental LLC

N

0 300 600 Feet

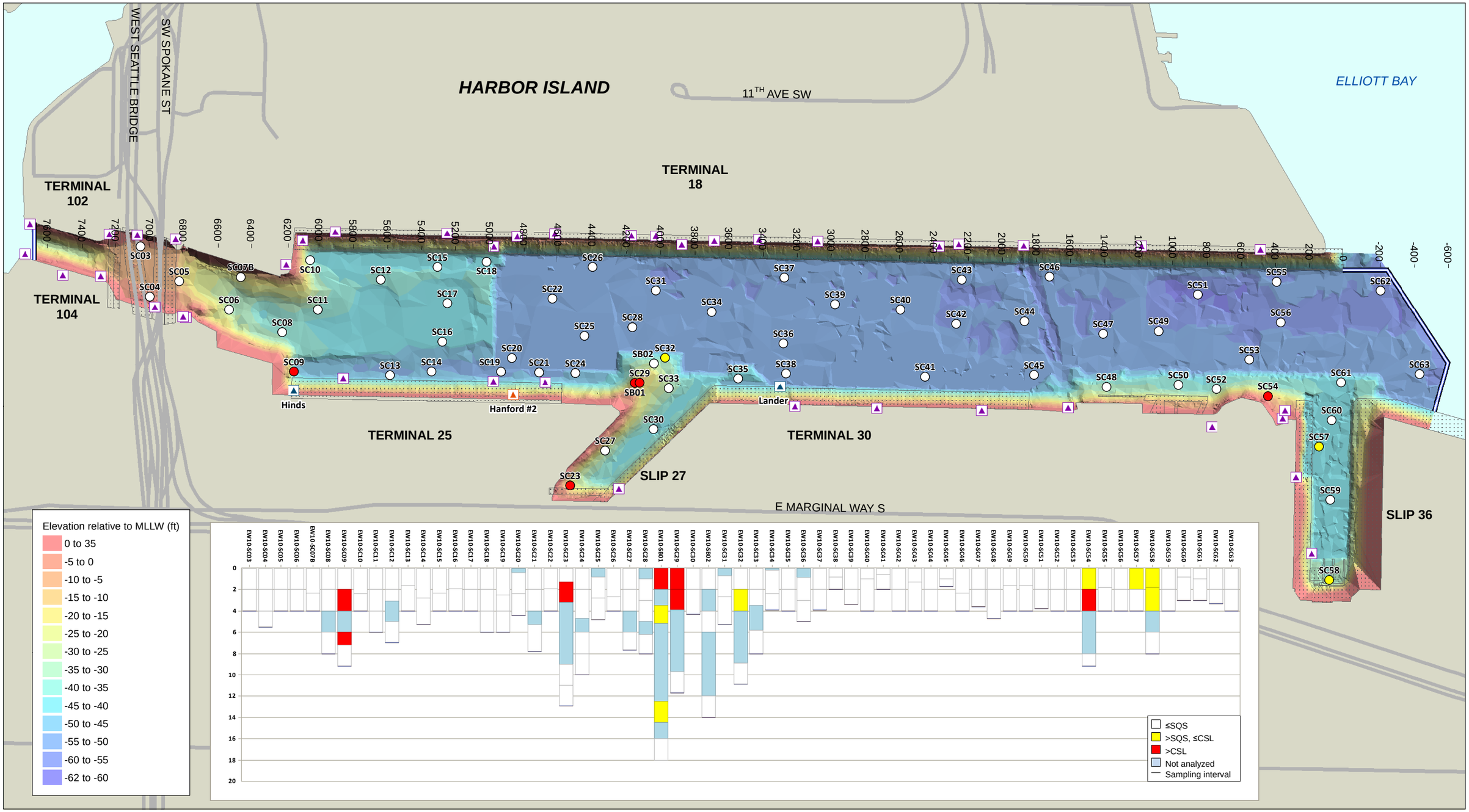
0 90 180 Meters

Tributyltin as ion
µg/kg dw
- ≤ 50
- > 50 and ≤ 100
- > 100 and ≤ 150
- > 150

- CSO
- Storm drain
- CSO/storm drain
- Road
- Dock/pier/bridge
- East Waterway Study Area Boundary

Map 4-6. EW subsurface sediment TBT results

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-06 4553 TBT in subsurface sampling locations.mxd



Wind Ward environmental LLC

N

0 300 600 Feet

0 90 180 Meters

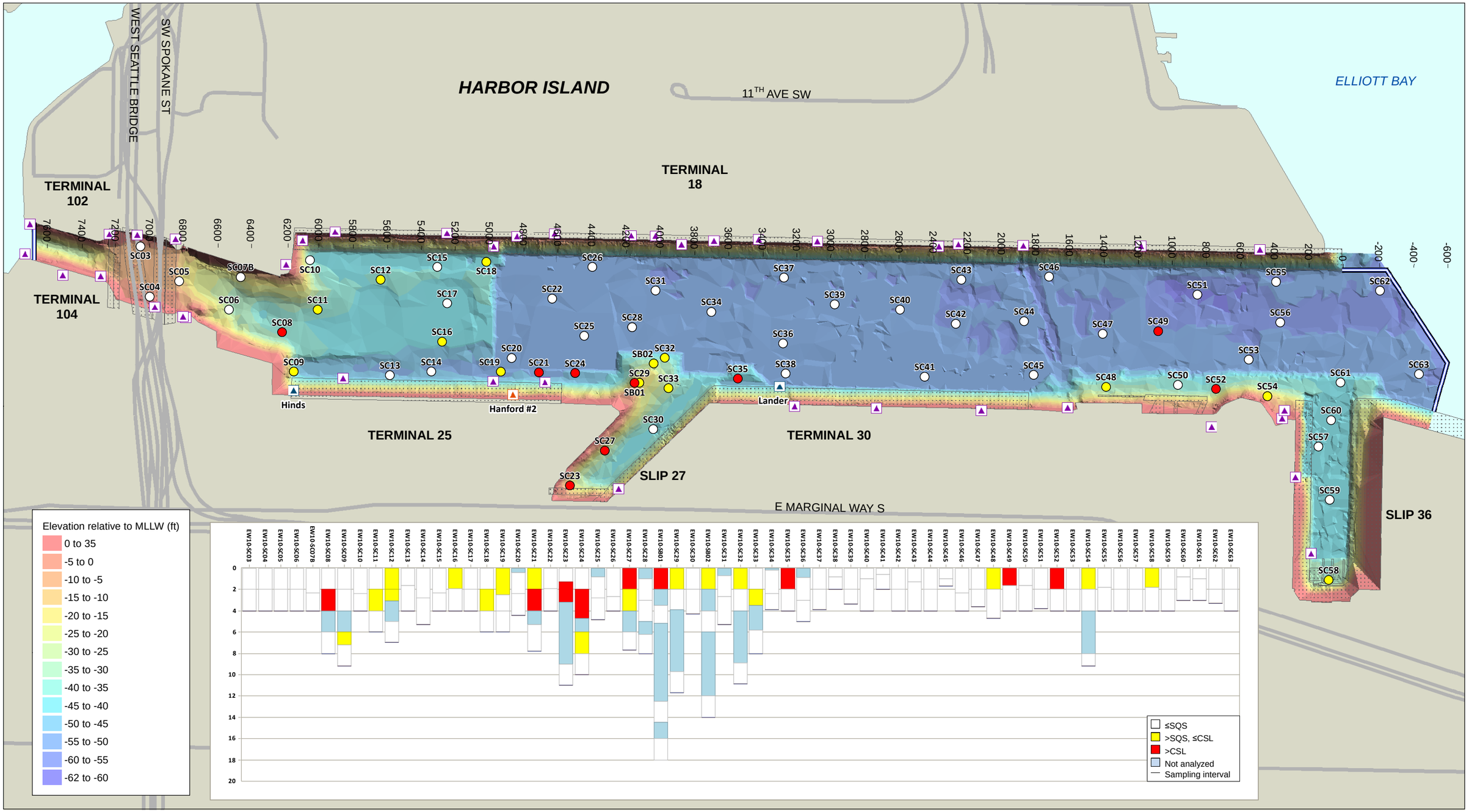
Maximum SQS/CSL category for HPAHs in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS or non-detect

CSO
Storm drain
CSO/storm drain
Road
Dock/pier/bridge
East Waterway Study Area Boundary

Map 4-7. EW subusrface sediment HPAH results compared with SMS criteria

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-07 4398 HPAH SMS in subsurface sampling locations.mxd



Wind Ward environmental LLC

N

0 300 600 Feet

0 90 180 Meters

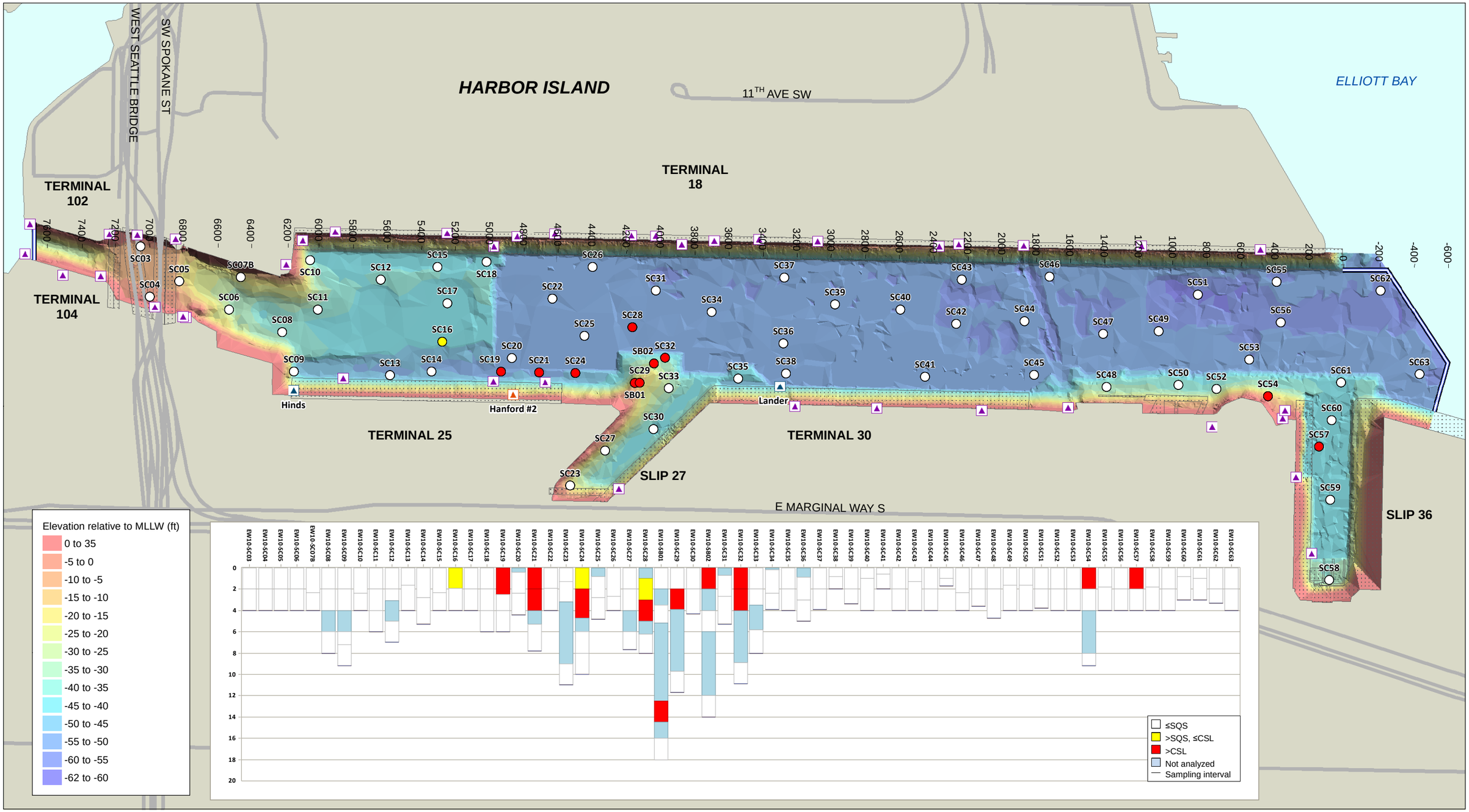
Maximum SQS/CSL category for BEHP in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS or non-detect

CSO
Storm drain
CSO/storm drain
Road
Dock/pier/bridge
East Waterway Study Area Boundary

Map 4-8. EW subusrface sediment BEHP results compared with SMS criteria

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-08 4397 BEHP SMS in subsurface sampling locations.mxd



Wind Ward environmental LLC

N

0 300 600 Feet

0 90 180 Meters

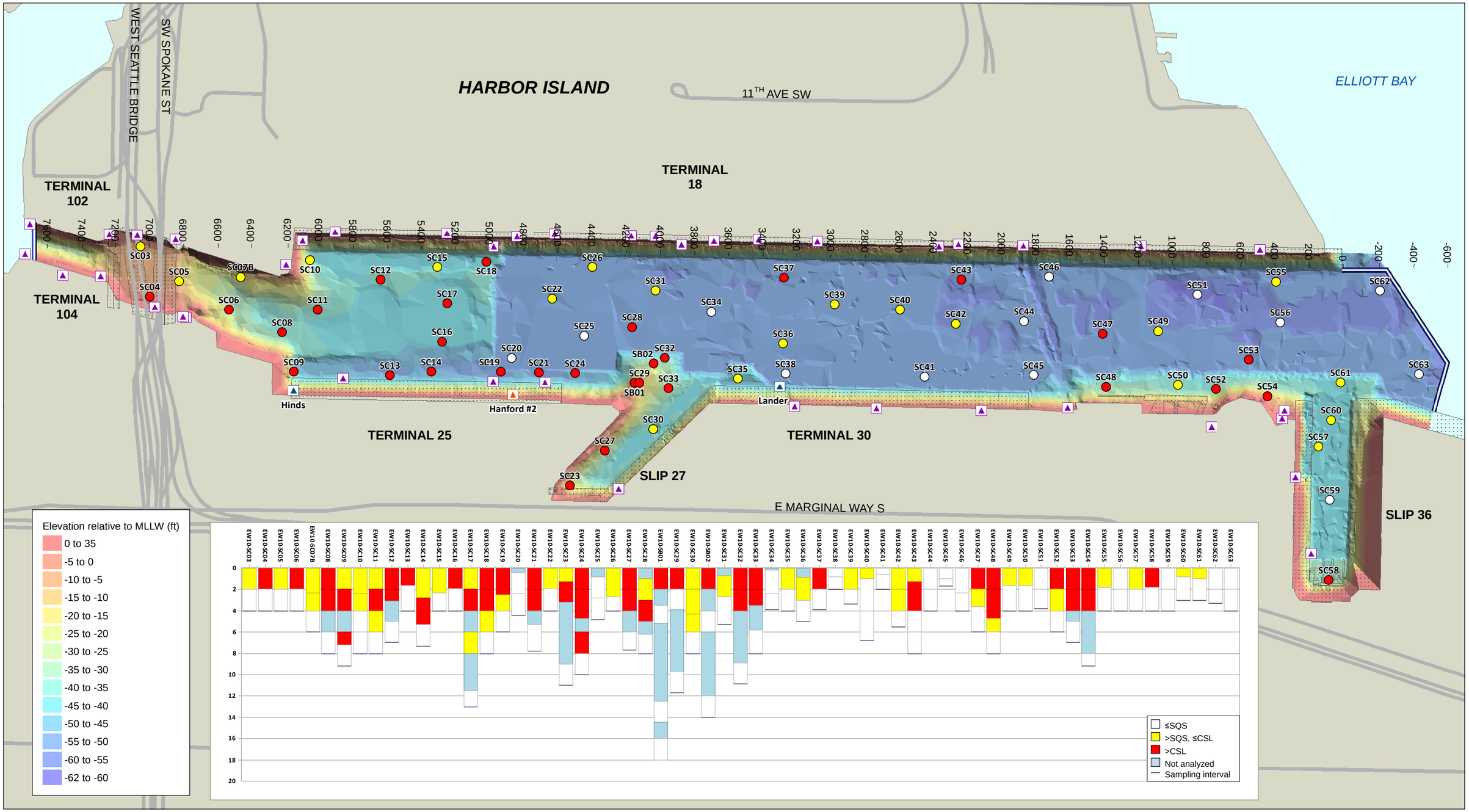
Maximum SQS/CSL category for other SVOCs in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS or non-detect

CSO
Storm drain
CSO/storm drain
Road
Dock/pier/bridge
East Waterway Study Area Boundary

Map 4-9. EW subsurface sediment other SVOCs results compared with SMS criteria

Prepared by craigh, 4/1/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-09 4554 Other SVOCs SMS in subsurface sampling locations.mxd



Wind Ward environmental LLC

N

0 300 600 Feet

0 90 180 Meters

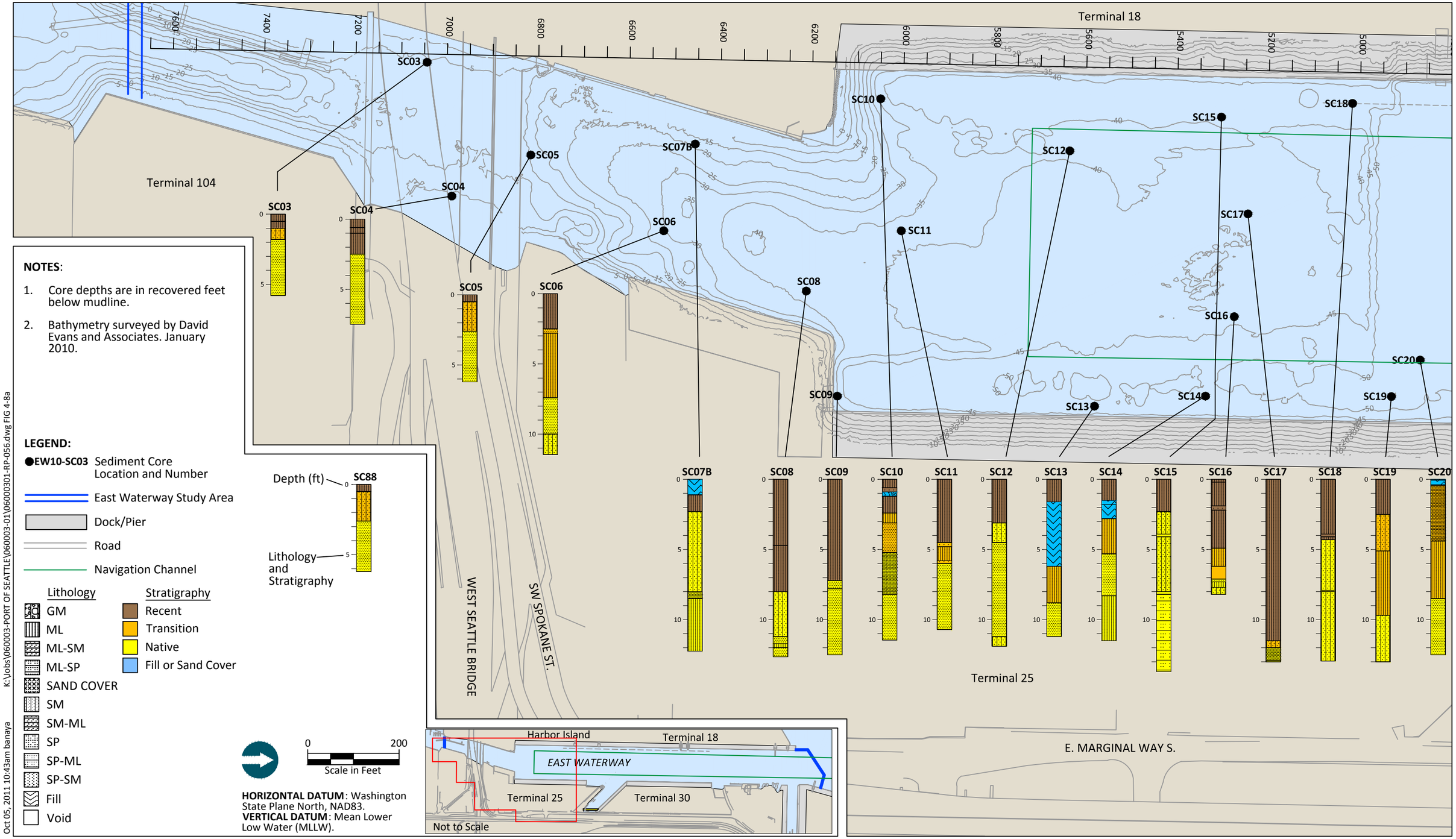
Maximum SQS/CSL category for total PCBs in subsurface cores

- > CSL, detect
- > SQS and ≤ CSL, detect
- ≤ SQS, detect and non-detect

- CSO
- Storm drain
- CSO/storm drain
- Road
- Dock/pier/bridge
- East Waterway Study Area Boundary

Map 4-10. EW subsurface sediment total PCB results compared with SMS criteria

Prepared by craigh, 3/31/2011; W:\Projects\00-08-08 East Waterway\EW RI-FS\Data\GIS\Data Report\Subsurface sediment sampling 2010\Map 4-10 4396 PCB SMS in subsurface sampling locations.mxd



NOTES:

1. Core depths are in recovered feet below mudline.
2. Bathymetry surveyed by David Evans and Associates. January 2010.

LEGEND:

- ●EW10-SC03 Sediment Core Location and Number
- East Waterway Study Area
- Dock/Pier
- Road
- Navigation Channel

Lithology	Stratigraphy
GM	Recent
ML	Transition
ML-SM	Native
ML-SP	Fill or Sand Cover
SAND COVER	
SM	
SM-ML	
SP	
SP-ML	
SP-SM	
Fill	
Void	

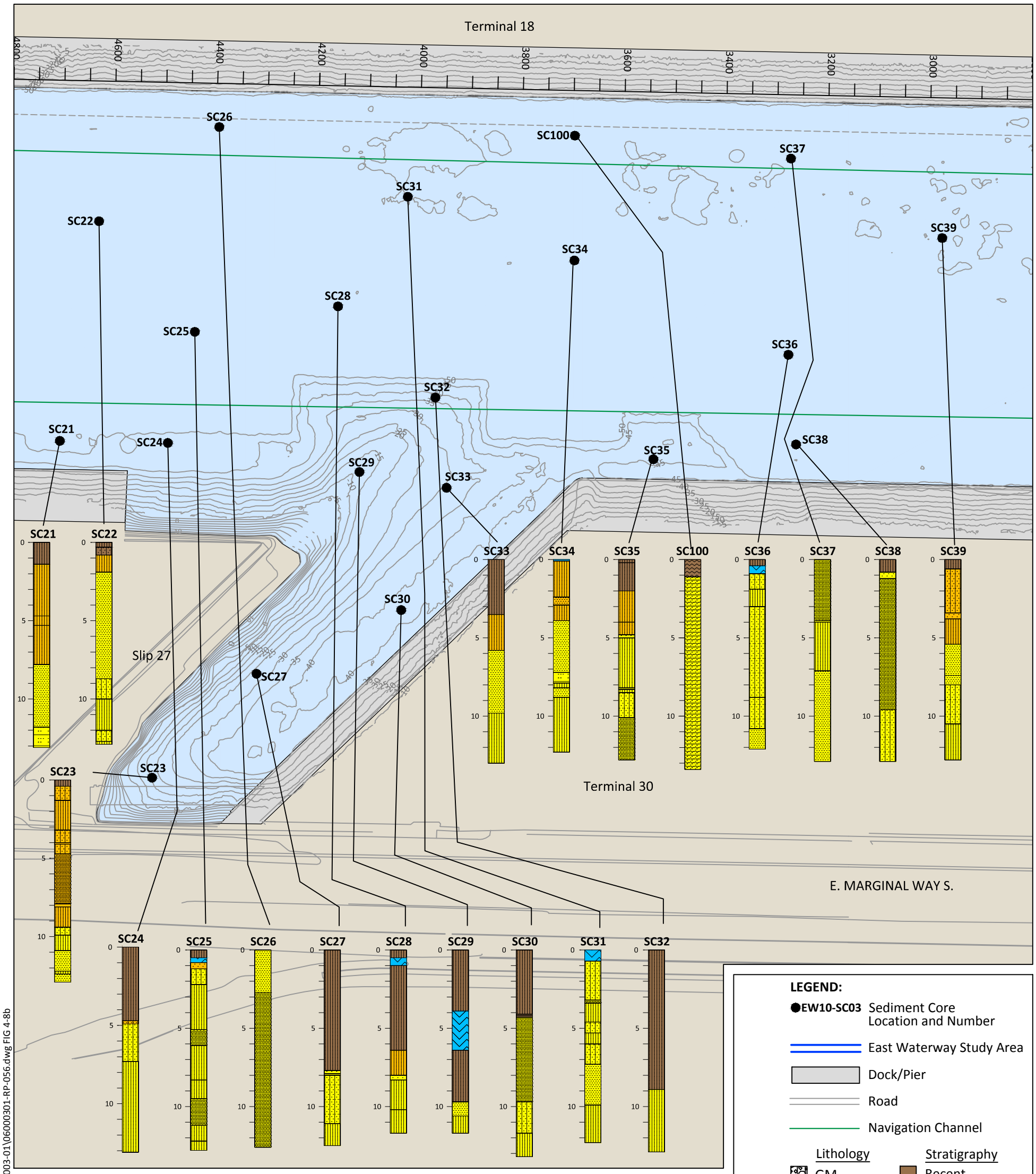
HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

K:\Jobs\060003-PORT OF SEATTLE\060003-01\06000301-RP-056.dwg FIG 4-8a

Oct 05, 2011 10:43am banaya

ANCHOR QEA

Map 4-MMa
Subsurface Sediment Core Stratigraphic Profiles
East Waterway, Port of Seattle



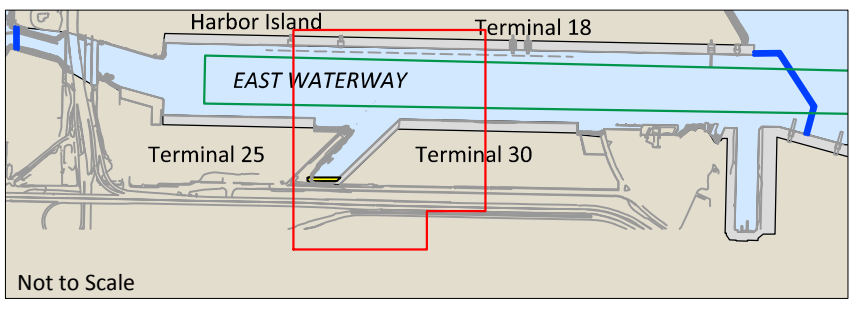
NOTES:

1. Core depths are in recovered feet below mudline.
2. Bathymetry surveyed by David Evans and Associates. January 2010.

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

0 200
Scale in Feet

Depth (ft)
SC88
Lithology and Stratigraphy



K:\Jobs\060003-PORT OF SEATTLE\060003-01\06000301-RP-056.dwg FIG 4-8b
Oct 05, 2011 10:43am banaya

ANCHOR QEA

Map 4-11b
Subsurface Sediment Core Stratigraphic Profiles
East Waterway, Port of Seattle

Terminal 18

SC40 SC41 SC42 SC43 SC44 SC45 SC46 SC47 SC48 SC101 SC49 SC50 SC51

Terminal 30

E. MARGINAL WAY S.

LEGEND:

- ●EW10-SC03 Sediment Core Location and Number
- East Waterway Study Area
- Dock/Pier
- Road
- Navigation Channel

Lithology	Stratigraphy
GM	Recent
ML	Transition
ML-SM	Native
ML-SP	Fill or Sand Cover
SAND COVER	
SM	
SM-ML	
SP	
SP-ML	
SP-SM	
Fill	
Void	

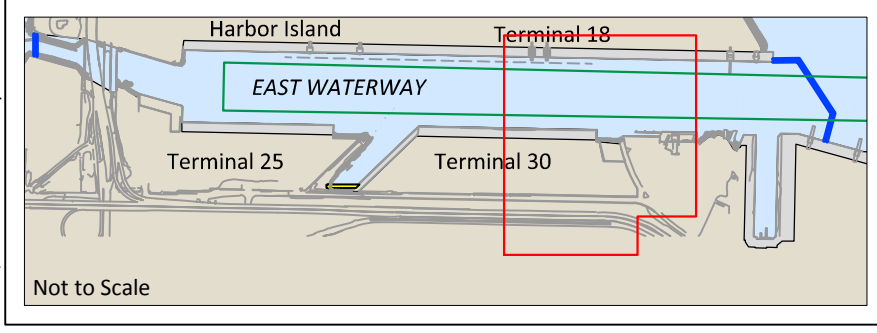
NOTES:

1. Core depths are in recovered feet below mudline.
2. Bathymetry surveyed by David Evans and Associates. January 2010.

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

0 200
Scale in Feet

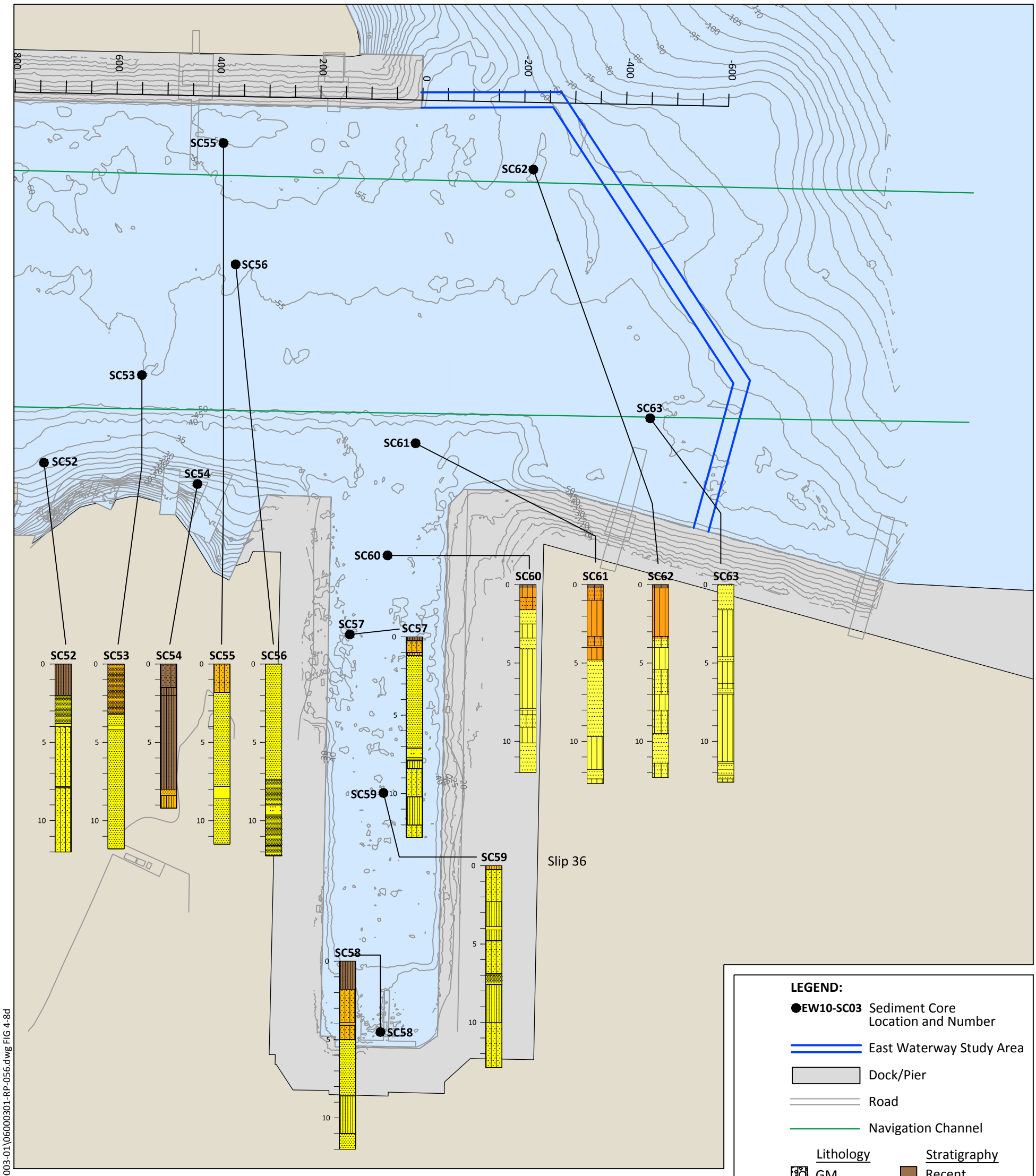
Depth (ft) SC88
Lithology and Stratigraphy



K:\Jobs\060003-PORT OF SEATTLE\060003-01\06000301-RP-056.dwg FIG 4-8c
Oct 05, 2011 10:44am banaya

ANCHOR QEA

Map 4-11c
Subsurface Sediment Core Stratigraphic Profiles
East Waterway, Port of Seattle

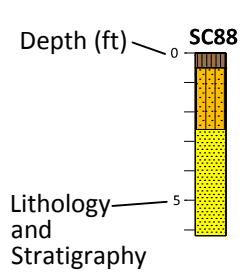


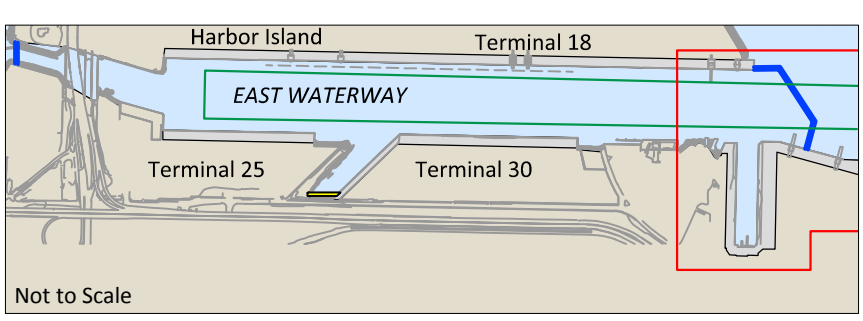
NOTES:

1. Core depths are in recovered feet below mudline.
2. Bathymetry surveyed by David Evans and Associates. January 2010.

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

0 200
Scale in Feet





K:\Jobs\060003-PORT OF SEATTLE\060003-01\06000301-RP-056.dwg FIG 4-8d
Oct 05, 2011 10:44am banaya

ANCHOR QEA

Map 4-11d
Subsurface Sediment Core Stratigraphic Profiles
East Waterway, Port of Seattle

APPENDIX A

Data Tables

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
Metals									
Antimony	mg/kg dw	20 UJ	20 UJ	6 UJ	6 UJ	na	9 UJ	8 UJ	7 UJ
Arsenic	mg/kg dw	18.8	11.5	4.4	3.4	na	13.6	7.8	5.6
Cadmium	mg/kg dw	45.2	3.4	0.4	0.3	na	7.1	1.3	0.5
Chromium	mg/kg dw	149	30	24.5	18.7	na	83.1	45.9	24.8
Cobalt	mg/kg dw	13	11	8.2	6.3	na	9.8	11.9	7.6
Copper	mg/kg dw	315	143	32.0	21.1	na	151	62.4	30.9
Lead	mg/kg dw	580	381	19	7	na	293	1,450	16
Mercury	mg/kg dw	2.48	1.07	0.23	0.07	na	1.20	1.06	0.18
Molybdenum	mg/kg dw	11	4	0.7	0.7	na	6.6	2.3	1
Nickel	mg/kg dw	56	32	19	15	na	35	45	21
Selenium	mg/kg dw	2	0.7 U	0.6 U	0.6 U	na	0.9 U	0.8 U	0.7 U
Silver	mg/kg dw	7	1 U	0.4 U	0.4 U	na	4.4	0.5 U	0.4 U
Thallium	mg/kg dw	0.4 U	0.3 U	0.3 U	0.2 U	na	0.4 U	0.3 U	0.3 U
Vanadium	mg/kg dw	72	58	52.7	47.1	na	68.5	64.2	50.8
Zinc	mg/kg dw	6,850	597	59	38	na	848	133	55
Organometals									
Monobutyltin as ion	µg/kg dw	na	na	na	na	na	na	na	na
Dibutyltin as ion	µg/kg dw	na	na	na	na	na	na	na	na
Tributyltin as ion	µg/kg dw	na	na	na	na	na	na	na	na
PAHs									
1-Methylnaphthalene	µg/kg dw	2,600	1,700	8,900	1,100	710	1,900	79	17 J
2-Chloronaphthalene	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
2-Methylnaphthalene	µg/kg dw	200	1,600	4,200	290	21	2,700	71	15 J
Acenaphthene	µg/kg dw	11,000	2,000	10,000	1,600	1,000	4,400	700	130
Acenaphthylene	µg/kg dw	88 U	20 U	19 U	20 U	19 U	21 U	56 J	20 U

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
Anthracene	µg/kg dw	6,600	1,300	3,900	350	26	1,300	880	26
Benzo(a)anthracene	µg/kg dw	17,000	1,400	640	84	19 U	1,300	1,000	23
Benzo(a)pyrene	µg/kg dw	12,000	950 J	200	32	19 U	760	670	16 J
Benzo(g,h,i)perylene	µg/kg dw	2,000	160 J	28	20 U	19 U	140	140	11 J
Total benzofluoranthenes	µg/kg dw	14,000	1,600	300	52	19 U	1,800	1,200	24 J
Chrysene	µg/kg dw	20,000	R	650	96	19 U	2,000	1,600	27
Dibenzo(a,h)anthracene	µg/kg dw	1,200	81 J	16	5.9 U	19 U	73	65	6.0 U
Dibenzofuran	µg/kg dw	2,400	1,400	5,700	820	160	2,600	200	35
Fluoranthene	µg/kg dw	50,000 J	5,600 J	5,400 J	590 J	23	7,200 J	4,200 J	91 J
Fluorene	µg/kg dw	6,100	1,800	6,100	790	160	3,300	460	42
Indeno(1,2,3-cd)pyrene	µg/kg dw	2,000	170 J	33	20 U	19 U	140	140	20 U
Naphthalene	µg/kg dw	780	4,500	21,000	2,000	130	10,000	180	55
Phenanthrene	µg/kg dw	28,000	7,200	20,000	2,300	230	8,500	2,000	130
Pyrene	µg/kg dw	38,000	5,700	4,500	540	19 J	6,800	3,300	88
Total HPAHs	µg/kg dw	156,000 J	15,700 J	11,770 J	1,390 J	42 J	20,200 J	12,300 J	280 J
Total LPAHs	µg/kg dw	52,000	16,800	61,000	7,000	1,500	28,000	4,300 J	380
cPAHs - mammal - half DL	µg/kg dw	16,000	1,300 J	310	49	16 U	1,100	950	23 J
Total PAHs	µg/kg dw	209,000 J	32,500 J	73,000 J	8,400 J	1,600 J	48,000 J	16,600 J	660 J
Phthalates									
Bis(2-ethylhexyl)phthalate	µg/kg dw	3,200	79	29	220	na	1,600	36 J	28
Butyl benzyl phthalate	µg/kg dw	63 J	15 U	15 U	15 U	na	51	16 U	15 U
Diethyl phthalate	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	11 J
Dimethyl phthalate	µg/kg dw	45 U	15 U	15 U	15 U	na	15 U	16 U	15 U
Di-n-butyl phthalate	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
Di-n-octyl phthalate	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
Other SVOCs									

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
1,2,4-Trichlorobenzene	µg/kg dw	18 U	5.9 U	6.0 U	5.9 U	na	6.2 U	6.2 U	6.0 U
1,2-Dichlorobenzene	µg/kg dw	18 U	5.9 U	6.0 U	5.9 U	na	6.2 U	6.2 U	6.0 U
1,3-Dichlorobenzene	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
1,4-Dichlorobenzene	µg/kg dw	27	5.9 U	6.0 U	5.9 U	na	18 J	6.2 U	6.0 U
2,4,5-Trichlorophenol	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
2,4,6-Trichlorophenol	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
2,4-Dichlorophenol	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
2,4-Dimethylphenol	µg/kg dw	18 U	5.9 U	19 U	5.9 U	na	80	6.2 U	6.0 U
2,4-Dinitrophenol	µg/kg dw	880 U	200 U	190 U	200 U	na	210 U	580 U	200 U
2,4-Dinitrotoluene	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
2,6-Dinitrotoluene	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
2-Chlorophenol	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
2-Methylphenol	µg/kg dw	18 U	5.9 U	9.5	24	na	6.2 U	6.2 U	6.0 U
2-Nitroaniline	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
2-Nitrophenol	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
3,3'-Dichlorobenzidine	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
3-Nitroaniline	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
4,6-Dinitro-o-cresol	µg/kg dw	880 U	200 U	190 U	200 U	na	210 U	580 U	200 U
4-Bromophenyl phenyl ether	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
4-Chloro-3-methylphenol	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
4-Chloroaniline	µg/kg dw	440 U	R	96 U	98 U	na	110 U	290 U	98 U
4-Chlorophenyl phenyl ether	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
4-Methylphenol	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
4-Nitroaniline	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
4-Nitrophenol	µg/kg dw	440 U	98 U	96 U	98 U	na	110 U	290 U	98 U
Aniline	µg/kg dw	88 U	R	19 U	20 U	na	21 U	58 U	20 U

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
Benzoic acid	µg/kg dw	880 U	200 U	190 U	200 U	na	210 U	580 U	200 U
Benzyl alcohol	µg/kg dw	88 U	R	19 U	20 U	na	21 U	58 U	20 U
bis(2-chloroethoxy)methane	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
bis(2-chloroethyl)ether	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
bis(2-chloroisopropyl)ether	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
Carbazole	µg/kg dw	2,500	460	750	230	na	760	100	20 U
Hexachlorobenzene	µg/kg dw	18 U	5.9 U	6.0 U	5.9 U	na	6.2 U	6.2 U	6.0 U
Hexachlorobutadiene	µg/kg dw	18 U	5.9 U	6.0 U	5.9 U	na	6.2 U	6.2 U	6.0 U
Hexachlorocyclopentadiene	µg/kg dw	440 UJ	R	96 UJ	98 UJ	na	110 UJ	290 UJ	98 UJ
Hexachloroethane	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
Isophorone	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
n-Nitroso-di-n-propylamine	µg/kg dw	90 U	30 U	30 U	29 U	na	31 U	31 U	30 U
n-Nitrosodimethylamine	µg/kg dw	90 U	30 U	30 U	29 U	na	31 U	31 U	30 U
n-Nitrosodiphenylamine	µg/kg dw	88 U	20 U	160	20 U	na	21 U	16 U	6.0 U
Nitrobenzene	µg/kg dw	88 U	20 U	19 U	20 U	na	21 U	58 U	20 U
Pentachlorophenol	µg/kg dw	90 U	30 U	30 U	29 U	na	31 U	31 U	30 U
Phenol	µg/kg dw	88 UJ	20 UJ	19 UJ	20 UJ	na	21 UJ	58 UJ	20 UJ
PCBs									
Aroclor-1016	µg/kg dw	79 U	3.9 U	20 U	4.0 U	na	39 U	19 U	3.9 U
Aroclor-1221	µg/kg dw	79 U	3.9 U	20 U	4.0 U	na	39 U	19 U	3.9 U
Aroclor-1232	µg/kg dw	79 U	3.9 U	29 U	4.0 U	na	39 U	19 U	3.9 U
Aroclor-1242	µg/kg dw	79 U	3.9 U	20 U	4.0 U	na	39 U	19 U	3.9 U
Aroclor-1248	µg/kg dw	2,100	29	20 U	4.0 U	na	1,000	48 U	3.9 U
Aroclor-1254	µg/kg dw	2,700	34	20 U	4.0 U	na	1,200	77 U	3.9 U
Aroclor-1260	µg/kg dw	2,600	81	20 U	4.0 U	na	1,000	150	3.9 U
Aroclor-1262	µg/kg dw	79 U	3.9 U	20 U	4.0 U	na	39 U	19 U	3.9 U

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
Aroclor-1268	µg/kg dw	79 U	3.9 U	20 U	4.0 U	na	39 U	19 U	3.9 U
Total PCBs	µg/kg dw	7,400	144	29 U	4.0 U	na	3,200	150	3.9 U
Pesticides									
2,4'-DDD	µg/kg dw	na	na	na	na	na	na	na	na
2,4'-DDE	µg/kg dw	na	na	na	na	na	na	na	na
2,4'-DDT	µg/kg dw	na	na	na	na	na	na	na	na
4,4'-DDD	µg/kg dw	na	na	na	na	na	na	na	na
4,4'-DDE	µg/kg dw	na	na	na	na	na	na	na	na
4,4'-DDT	µg/kg dw	na	na	na	na	na	na	na	na
Total DDTs	µg/kg dw	na	na	na	na	na	na	na	na
Aldrin	µg/kg dw	na	na	na	na	na	na	na	na
Dieldrin	µg/kg dw	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	µg/kg dw	na	na	na	na	na	na	na	na
alpha-BHC	µg/kg dw	na	na	na	na	na	na	na	na
beta-BHC	µg/kg dw	na	na	na	na	na	na	na	na
gamma-BHC	µg/kg dw	na	na	na	na	na	na	na	na
delta-BHC	µg/kg dw	na	na	na	na	na	na	na	na
alpha-Chlordane	µg/kg dw	na	na	na	na	na	na	na	na
beta-Chlordane	µg/kg dw	na	na	na	na	na	na	na	na
gamma-Chlordane	µg/kg dw	na	na	na	na	na	na	na	na
Total chlordane	µg/kg dw	na	na	na	na	na	na	na	na
Chlorpyrifos	µg/kg dw	na	na	na	na	na	na	na	na
alpha-Endosulfan	µg/kg dw	na	na	na	na	na	na	na	na
beta-Endosulfan	µg/kg dw	na	na	na	na	na	na	na	na
Endosulfan sulfate	µg/kg dw	na	na	na	na	na	na	na	na
Endrin	µg/kg dw	na	na	na	na	na	na	na	na

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
Endrin aldehyde	µg/kg dw	na	na	na	na	na	na	na	na
Endrin ketone	µg/kg dw	na	na	na	na	na	na	na	na
Heptachlor	µg/kg dw	na	na	na	na	na	na	na	na
Heptachlor epoxide	µg/kg dw	na	na	na	na	na	na	na	na
Isodrin	µg/kg dw	na	na	na	na	na	na	na	na
Methoxychlor	µg/kg dw	na	na	na	na	na	na	na	na
Mirex	µg/kg dw	na	na	na	na	na	na	na	na
cis-Nonachlor	µg/kg dw	na	na	na	na	na	na	na	na
trans-Nonachlor	µg/kg dw	na	na	na	na	na	na	na	na
Octachlorostyrene	µg/kg dw	na	na	na	na	na	na	na	na
Oxychlordane	µg/kg dw	na	na	na	na	na	na	na	na
Toxaphene	µg/kg dw	na	na	na	na	na	na	na	na
Grain size									
Fractional % phi >-1 (>2000 microns)	% dw	4.1	14.9	7.7	1.3	na	5.1	14.8	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	% dw	3.3	4.0	4.7	0.6	na	3.1	3.1	0.3
Fractional % phi 0-1 (500-1000 microns)	% dw	3.7	2.8	5.5	3.2	na	3.3	1.9	0.5
Fractional % phi 1-2 (250-500 microns)	% dw	14.3	8.0	12.0	19.4	na	7.0	3.7	0.7
Fractional % phi 2-3 (125-250 microns)	% dw	11.4	12.1	20.5	22.4	na	8.8	4.3	5.0
Fractional % phi 3-4 (62.5-125 microns)	% dw	6.4	7.1	14.5	14.7	na	8.7	4.1	17.0
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	5.0	7.3	9.4	11.1	na	7.0	6.3	21.9
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	9.1	8.3	6.4	8.9	na	9.6	9.3	17.8
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	12.8	9.8	5.0	6.0	na	13.8	11.6	12.2
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	8.6	7.5	3.7	4.1	na	9.8	10.6	7.3
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	6.4	5.7	3.5	2.8	na	7.1	10.4	5.6
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	5.3	4.6	2.5	1.8	na	6.2	7.1	4.0
Fractional % phi 10+ (<0.98 micron)	% dw	9.7	7.9	4.7	3.7	na	10.6	12.7	7.8

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	Location Name	EW10-SB01					EW10-SB02		
	Sample Name	EW10-SB01-0-2	EW10-SB01-3.5-5.2	EW10-SB01-12.5-14.5	EW10-SB01-16-18	EW10-SB01-24.5-26.5	EW10-SB02-0-2	EW10-SB02-4-6	EW10-SB02-12-14
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	Sample Type	N	N	N	N	N	N	N	N
	Depth Interval/ Unit	0-2 ft	3.5-5.2 ft	12.5-14.5 ft	16-18 ft	24.5-26.5 ft	0-2 ft	4-6 ft	12-14 ft
Total gravel	% dw	4.1	14.9	7.7	1.3	na	5.1	14.8	0.1 U
Total sand	% dw	39.1	34.0	57.2	60.3	na	30.9	17.1	23.5
Total silt	% dw	35.5	32.9	24.5	30.1	na	40.2	37.8	59.2
Total clay	% dw	21.3	18.2	10.7	8.3	na	23.9	30.2	17.4
Total fines (percent silt+clay)	% dw	56.9	51.1	35.2	38.4	na	64.1	68.0	76.6
Conventionals									
Total organic carbon (TOC)	% dw	2.79	1.51	0.747	0.829	0.499	2.63	1.42	0.874
Total solids	% ww	52.20	65.50	76.00	77.00	79.73	54.00	63.80	68.63

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
Metals										
Antimony	7 UJ	5 UJ	8 UJ	6 UJ	na	7 UJ	6 UJ	10 UJ	10 UJ	na
Arsenic	13.2	1.4	18.6	4.1	na	8.7	3.7	24.4	13.6	na
Cadmium	1.4	0.2 U	1.9	0.3	na	0.3	0.2 U	3.1	3.6	na
Chromium	43.1	9.4	55.7	11.8	na	18.8	11.1	72	45	na
Cobalt	5.8	4.2	8.4	4.9	na	5.1	4.2	10.5	6.5	na
Copper	55.0	8.4	84.9	15.7	na	28.9	10.3	130	70.2	na
Lead	130	2 U	170	27	na	19	2 U	197	169	na
Mercury	0.52	0.03 U	0.40	0.05	na	0.06	0.03 U	0.90	0.80	0.71
Molybdenum	3.6	0.5 U	3.1	1	na	1.0	0.6 U	6	9	na
Nickel	17	7	29	10	na	13	8	31	20	na
Selenium	0.7 U	0.5 U	0.8 U	0.6 U	na	0.7 U	0.6 U	1 U	1 U	na
Silver	2.0	0.3 U	2.1	0.4 U	na	0.4 U	0.4 U	3.7	1.8	na
Thallium	0.3 U	0.2 U	0.3 U	0.2 U	na	0.3 U	0.3 U	0.4 U	0.4 U	na
Vanadium	54.3	37.9	65.7	43.3	na	44.1	42.7	74.7	60.8	na
Zinc	167	23	210	55	na	67	24	287	253	na
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	3.6 U	3.8 U	na
Dibutyltin as ion	na	na	na	na	na	na	na	15	5.3 U	na
Tributyltin as ion	na	na	na	na	na	na	na	63 J	4.5 J	na
PAHs										
1-Methylnaphthalene	28 U	20 U	15 J	230 J	4.8 U	20 U	19 U	32 U	19 J	na
2-Chloronaphthalene	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
2-Methylnaphthalene	17 J	20 U	22 J	280 J	4.8 U	20 U	19 U	18 J	28 J	na
Acenaphthene	19 J	20 U	70	340 J	4.8 U	20 U	19 U	32 U	47	na
Acenaphthylene	21 J	20 U	27	19 U	4.8 U	13 J	19 U	37	38	na

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
Anthracene	150	20 U	120	610 J	4.8 U	30	19 U	90	180	na
Benzo(a)anthracene	320	20 U	460	670 J	4.8 U	64	19 U	140	330	na
Benzo(a)pyrene	290	20 U	330	670 J	4.8 U	130	19 U	350	330	na
Benzo(g,h,i)perylene	120	20 U	120	310 J	4.8 U	38	19 U	100	100	na
Total benzofluoranthenes	540	20 U	680	860	4.8 U	260	19 U	720	600	na
Chrysene	830	20 U	590	720 J	4.8 U	140	19 U	240	460	na
Dibenzo(a,h)anthracene	61	6.0 U	70	140	4.8 U	26	6.0 U	62	48 J	na
Dibenzofuran	17 J	20 U	25 J	150 J	4.8 U	20 U	19 U	32 U	36	na
Fluoranthene	490	20 U	1,200	2,000 J	4.8 U	150	19 U	250	810	na
Fluorene	40	20 U	55	460 J	4.8 U	20 U	19 U	17 J	68	na
Indeno(1,2,3-cd)pyrene	120	20 U	130	290 J	4.8 U	35	19 U	110	100	na
Naphthalene	50	20 U	37	340 J	4.8 U	20 U	19 U	31 J	73	na
Phenanthrene	190	20 U	280	2,300 J	4.8 U	37	19 U	130	260	na
Pyrene	560	20 U	870	1,300	4.8 U	680	19 U	640	810	na
Total HPAHs	3,330	20 U	4,500	7,000 J	4.8 U	1,520	19 U	2,610	3,590 J	na
Total LPAHs	470 J	20 U	590	4,100 J	4.8 U	80 J	19 U	310 J	670	na
cPAHs - mammal - half DL	420	14 U	490	920 J	4.1 U	180	14 U	470	460 J	na
Total PAHs	3,800 J	20 U	5,000	11,000 J	4.8 U	1,600 J	19 U	2,920 J	4,250 J	na
Phthalates										
Bis(2-ethylhexyl)phthalate	340 U	170 U	510 U	210 U	na	270 U	230 U	880 U	470 U	na
Butyl benzyl phthalate	22 J	15 U	39 J	15 U	na	15 U	15 U	63 J	15 U	na
Diethyl phthalate	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
Dimethyl phthalate	15 U	15 U	500	15 U	na	10 J	15 U	16 J	15 U	na
Di-n-butyl phthalate	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
Di-n-octyl phthalate	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
Other SVOCs										

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
1,2,4-Trichlorobenzene	6.0 U	6.0 U	7.7 J	5.8 U	na	6.1 U	6.0 U	15 J	6.1 U	na
1,2-Dichlorobenzene	6.0 U	6.0 U	5.9 U	5.8 U	na	6.1 U	6.0 U	6.1 U	6.1 U	na
1,3-Dichlorobenzene	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
1,4-Dichlorobenzene	6.0 U	6.0 U	25	5.8 U	na	6.1 U	6.0 U	12	6.1 U	na
2,4,5-Trichlorophenol	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
2,4,6-Trichlorophenol	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
2,4-Dichlorophenol	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
2,4-Dimethylphenol	6.0 U	6.0 U	5.9 U	5.8 U	na	6.1 U	6.0 U	6.1 U	6.1 U	na
2,4-Dinitrophenol	280 U	200 U	270 U	190 U	na	200 U	190 U	320 U	340 U	na
2,4-Dinitrotoluene	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
2,6-Dinitrotoluene	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
2-Chlorophenol	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
2-Methylphenol	6.0 U	6.0 U	5.9 U	5.8 U	na	6.1 U	6.0 U	6.1 U	6.1 U	na
2-Nitroaniline	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
2-Nitrophenol	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
3,3'-Dichlorobenzidine	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
3-Nitroaniline	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
4,6-Dinitro-o-cresol	280 U	200 U	270 U	190 U	na	200 U	190 U	320 U	340 U	na
4-Bromophenyl phenyl ether	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
4-Chloro-3-methylphenol	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
4-Chloroaniline	140 U	98 U	140 U	97 UJ	na	100 U	97 U	160 U	170 U	na
4-Chlorophenyl phenyl ether	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
4-Methylphenol	28 U	20 U	15 J	19 U	na	20 U	19 U	20 J	76	na
4-Nitroaniline	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
4-Nitrophenol	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
Aniline	28 U	20 U	27 U	R	na	20 U	19 U	32 U	34 U	na

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
Benzoic acid	280 U	200 U	270 U	47 J	na	200 U	190 U	320 U	340 U	na
Benzyl alcohol	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
bis(2-chloroethoxy)methane	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
bis(2-chloroethyl)ether	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
bis(2-chloroisopropyl)ether	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
Carbazole	24 J	20 U	54	220 J	na	20 U	19 U	32 U	34 U	na
Hexachlorobenzene	6.0 U	6.0 U	5.9 U	5.8 U	na	6.1 U	6.0 U	6.1 U	6.1 U	na
Hexachlorobutadiene	6.0 U	6.0 U	5.9 U	5.8 U	na	6.1 U	6.0 U	6.1 U	6.1 U	na
Hexachlorocyclopentadiene	140 U	98 U	140 U	97 U	na	100 U	97 U	160 U	170 U	na
Hexachloroethane	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
Isophorone	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
n-Nitroso-di-n-propylamine	30 U	30 U	30 U	29 U	na	31 U	30 U	30 U	31 U	na
n-Nitrosodimethylamine	30 U	30 U	30 U	29 U	na	31 U	30 U	30 U	31 U	na
n-Nitrosodiphenylamine	9.0 U	6.0 U	13 U	5.8 U	na	6.1 U	6.0 U	7.3 U	6.1 U	na
Nitrobenzene	28 U	20 U	27 U	19 U	na	20 U	19 U	32 U	34 U	na
Pentachlorophenol	30 U	30 U	30 U	29 U	na	31 U	30 U	30 U	31 U	na
Phenol	24 J	20 U	47	19 U	na	20 U	19 U	32 U	34 U	na
PCBs										
Aroclor-1016	62 U	3.9 U	63 U	3.9 U	na	20 U	3.9 U	41 U	3.9 U	na
Aroclor-1221	62 U	3.9 U	63 U	3.9 U	na	20 U	3.9 U	41 U	3.9 U	na
Aroclor-1232	62 U	3.9 U	63 U	3.9 U	na	20 U	3.9 U	41 U	3.9 U	na
Aroclor-1242	62 U	3.9 U	430 J	3.9 U	na	20 U	3.9 U	250	3.9 U	na
Aroclor-1248	250 U	3.9 U	63 U	3.9 U	na	41 JN	3.9 U	41 U	20 U	na
Aroclor-1254	530 J	3.9 U	920	3.9 U	na	64 J	3.9 U	1,000	37 J	na
Aroclor-1260	900	3.9 U	1,300	5.5	na	62	5.6	1,300	72	na
Aroclor-1262	62 U	3.9 U	63 U	3.9 U	na	20 U	3.9 U	41 U	3.9 U	na

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
Aroclor-1268	62 U	3.9 U	63 U	3.9 U	na	20 U	3.9 U	41 U	3.9 U	na
Total PCBs	1,430 J	3.9 U	2,700 J	5.5	na	167 JN	5.6	2,600	109 J	na
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	28.0	5.1	31.3	3.2	na	7.5	6.3	0.7	3.9	na
Fractional % phi -1-0 (1000-2000 microns)	2.7	2.8	3.8	1.6	na	8.0	6.1	1.9	3.4	na
Fractional % phi 0-1 (500-1000 microns)	11.2	24.6	3.6	19.4	na	24.1	10.4	3.0	6.1	na
Fractional % phi 1-2 (250-500 microns)	21.7	54.1	7.9	62.1	na	34.9	31.9	6.3	22.8	na
Fractional % phi 2-3 (125-250 microns)	11.6	10.9	7.8	6.7	na	9.1	32.4	5.0	17.6	na
Fractional % phi 3-4 (62.5-125 microns)	4.7	0.9	8.4	1.2	na	1.5	5.5	4.4	6.8	na
Fractional % phi 4-5 (31.2-62.5 microns)	0.3	na	4.4	0.7	na	0.6	2.9	4.9	2.1	na
Fractional % phi 5-6 (15.6-31.2 microns)	1.9	na	6.4	1.1	na	1.6	1.1	7.8	4.4	na
Fractional % phi 6-7 (7.8-15.6 microns)	3.9	na	7.1	1	na	4.6	0.8	21.2	7.5	na
Fractional % phi 7-8 (3.9-7.8 microns)	3.6	na	5.2	0.9	na	2.1	0.6	13.8	6.3	na
Fractional % phi 8-9 (1.95-3.9 microns)	3.1	na	3.9	0.6	na	1.4	0.4	7.3	5.5	na
Fractional % phi 9-10 (0.98-1.95 microns)	2.0	na	3.0	0.4	na	1.4	0.2	7.3	4.6	na
Fractional % phi 10+ (<0.98 micron)	5.2	na	7.1	0.9	na	3.3	1.4	16.6	8.9	na

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC03		EW10-SC04			EW10-SC05		EW10-SC06		
	EW10-SC03-0-2	EW10-SC03-2-4	EW10-SC04-0-2	EW10-SC04-2-4	EW10-SC04-4-5.5	EW10-SC05-0-2	EW10-SC05-2-4	EW10-SC06-0-2	EW10-SC06-2-4	EW10-SC06-4-6
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-5.5 ft	0-2 ft	2-4 ft	0-2 ft	2-4 ft	4-6 ft
Total gravel	28.0	5.1	31.3	3.2	na	7.5	6.3	0.7	3.9	na
Total sand	51.9	93.3	31.5	91.0	na	77.6	86.3	20.6	56.7	na
Total silt	9.7	na	23.1	4	na	8.9	5.4	47.7	20.3	na
Total clay	10.3	na	14.0	1.9	na	6.1	2.0	31.2	19.0	na
Total fines (percent silt+clay)	20.0	na	37.1	6	na	15.0	7.4	78.9	39.3	na
Conventionals										
Total organic carbon (TOC)	2.95	0.326	2.09	1.78	0.098	1.35	0.255	3.69	7.40	4.32
Total solids	65.10	88.20	61.90	77.53	84.50	73.10	77.60	48.70	48.20	47.87

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical			EW10-SC07B			EW10-SC08				
	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
Metals										
Antimony	na	na	6 UJ	6 UJ	na	9 UJ	10 UJ	na	na	na
Arsenic	na	na	31.9	9.0	na	18.5	22.5	na	na	na
Cadmium	na	na	0.8	0.2 U	na	2.1	5.6	1.2	na	na
Chromium	na	na	30.9	12.7	na	53.9	118	na	na	na
Cobalt	na	na	8.3	4.6	na	13.1	16.4	na	na	na
Copper	na	na	68.1	16.0	na	129	157	na	na	na
Lead	na	na	80	13	na	162	272	na	na	na
Mercury	0.28	0.02 U	0.16	0.02 U	na	0.49	1.00	0.43	0.04	0.03 U
Molybdenum	na	na	2.7	1.2	na	3.7	7	na	na	na
Nickel	na	na	24	9	na	39	62	na	na	na
Selenium	na	na	0.7 U	0.6 U	na	0.9 U	1 U	na	na	na
Silver	na	na	0.6	0.4 U	na	1.6	5.8	na	na	na
Thallium	na	na	0.3 U	0.2 U	na	0.4 U	0.5	na	na	na
Vanadium	na	na	49.1	36.1	na	82.9	84.3	na	na	na
Zinc	na	na	152	42	na	321	382	na	na	na
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	na	na
Dibutyltin as ion	na	na	na	na	na	na	na	na	na	na
Tributyltin as ion	na	na	na	na	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	na	na	22 U	19 U	na	28 U	20 J	19 UJ	na	na
2-Chloronaphthalene	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
2-Methylnaphthalene	na	na	22 U	19 U	na	15 J	39	19 U	na	na
Acenaphthene	na	na	13 J	19 U	na	14 J	37 U	92	na	na
Acenaphthylene	na	na	22 U	19 U	na	34	37 U	19 U	na	na

Chemical	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
			EW10-SC07B			EW10-SC08				
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
Anthracene	na	na	36	19 U	na	90	290	160	na	na
Benzo(a)anthracene	na	na	94	19 U	na	170	560	160	na	na
Benzo(a)pyrene	na	na	160	10 J	na	360	520	110	na	na
Benzo(g,h,i)perylene	na	na	55	19 U	na	110	140	59	na	na
Total benzofluoranthenes	na	na	300	20 J	na	680	800	190	na	na
Chrysene	na	na	150	19 U	na	300	700	230	na	na
Dibenzo(a,h)anthracene	na	na	27	6.0 U	na	62	29 J	19 J	na	na
Dibenzofuran	na	na	22 U	19 U	na	28 U	25 J	56	na	na
Fluoranthene	na	na	180	19 U	na	260	1,200	680	na	na
Fluorene	na	na	22 U	19 U	na	20 J	57	120	na	na
Indeno(1,2,3-cd)pyrene	na	na	56	19 U	na	120	140	51	na	na
Naphthalene	na	na	22 U	19 U	na	29	33 J	17 J	na	na
Phenanthrene	na	na	110	19 U	na	120	170	680	na	na
Pyrene	na	na	380	29	na	520	1,500	580	na	na
Total HPAHs	na	na	1,400	59 J	na	2,580	5,600 J	2,080 J	na	na
Total LPAHs	na	na	160 J	19 U	na	310 J	550 J	1,070 J	na	na
cPAHs - mammal - half DL	na	na	220	15 J	na	480	690 J	160 J	na	na
Total PAHs	na	na	1,560 J	59 J	na	2,890 J	6,100 J	3,150 J	na	na
Phthalates										
Bis(2-ethylhexyl)phthalate	na	na	220	32	na	610 U	3,300	18 J	na	na
Butyl benzyl phthalate	na	na	25	15 U	na	55 J	66 J	18 J	na	na
Diethyl phthalate	na	na	22 U	19 U	na	28 U	37 U	15 U	na	na
Dimethyl phthalate	na	na	15 U	15 U	na	15 U	15 U	15 U	na	na
Di-n-butyl phthalate	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
Di-n-octyl phthalate	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
Other SVOCs										

Chemical			EW10-SC07B			EW10-SC08				
	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
1,2,4-Trichlorobenzene	na	na	6.2 U	6.0 U	na	6.0 U	6.1 U	6.0 U	na	na
1,2-Dichlorobenzene	na	na	6.2 U	6.0 U	na	6.0 U	6.1 U	6.0 U	na	na
1,3-Dichlorobenzene	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
1,4-Dichlorobenzene	na	na	6.2 U	6.0 U	na	16	15	6.0 U	na	na
2,4,5-Trichlorophenol	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
2,4,6-Trichlorophenol	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
2,4-Dichlorophenol	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
2,4-Dimethylphenol	na	na	6.2 U	6.0 U	na	6.0 U	6.1 U	6.0 U	na	na
2,4-Dinitrophenol	na	na	220 U	190 U	na	280 U	370 U	190 U	na	na
2,4-Dinitrotoluene	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
2,6-Dinitrotoluene	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
2-Chlorophenol	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
2-Methylphenol	na	na	6.2 U	6.0 U	na	6.0 U	6.1 U	6.0 U	na	na
2-Nitroaniline	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
2-Nitrophenol	na	na	110 U	96 U	na	140 U	180 U	19 U	na	na
3,3'-Dichlorobenzidine	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
3-Nitroaniline	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
4,6-Dinitro-o-cresol	na	na	220 U	190 U	na	280 U	370 U	190 U	na	na
4-Bromophenyl phenyl ether	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
4-Chloro-3-methylphenol	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
4-Chloroaniline	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
4-Chlorophenyl phenyl ether	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
4-Methylphenol	na	na	22 U	19 U	na	15 J	37 U	19 U	na	na
4-Nitroaniline	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
4-Nitrophenol	na	na	110 U	96 U	na	140 U	180 U	97 U	na	na
Aniline	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na

Chemical			EW10-SC07B			EW10-SC08				
	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
Benzoic acid	na	na	220 U	190 U	na	280 U	370 U	190 U	na	na
Benzyl alcohol	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
bis(2-chloroethoxy)methane	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
bis(2-chloroethyl)ether	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
bis(2-chloroisopropyl)ether	na	na	22 UJ	19 UJ	na	28 U	37 U	19 U	na	na
Carbazole	na	na	19 J	19 U	na	28	37 U	19 J	na	na
Hexachlorobenzene	na	na	6.2 U	6.0 U	na	6.0 U	6.1 U	6.0 U	na	na
Hexachlorobutadiene	na	na	6.2 U	6.0 U	na	6.0 U	6.1 U	6.0 U	na	na
Hexachlorocyclopentadiene	na	na	110 U	96 U	na	140 U	180 UJ	97 U	na	na
Hexachloroethane	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
Isophorone	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
n-Nitroso-di-n-propylamine	na	na	31 U	30 U	na	30 U	30 U	30 U	na	na
n-Nitrosodimethylamine	na	na	31 U	30 U	na	30 U	30 U	30 U	na	na
n-Nitrosodiphenylamine	na	na	6.2 U	6.0 U	na	6.6 U	21 U	8.4 U	na	na
Nitrobenzene	na	na	22 U	19 U	na	28 U	37 U	19 U	na	na
Pentachlorophenol	na	na	31 U	30 U	na	30 U	52	30 U	na	na
Phenol	na	na	18 J	19 U	na	28 U	37 U	19 U	na	na
PCBs										
Aroclor-1016	na	na	40 U	38 U	3.9 U	40 U	110 U	3.9 U	na	na
Aroclor-1221	na	na	40 U	38 U	3.9 U	40 U	110 U	3.9 U	na	na
Aroclor-1232	na	na	40 U	38 U	3.9 U	40 U	110 U	3.9 U	na	na
Aroclor-1242	na	na	40 U	38 U	3.9 U	180	110 U	3.9 U	na	na
Aroclor-1248	na	na	280 J	44	3.9 U	40 U	2,400	3.9 U	na	na
Aroclor-1254	na	na	270	45	3.9 U	540	2,800	3.9 U	na	na
Aroclor-1260	na	na	190	38 U	3.9 U	680	2,000	3.9 U	na	na
Aroclor-1262	na	na	40 U	38 U	3.9 U	40 U	110 U	3.9 U	na	na

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical			EW10-SC07B			EW10-SC08				
	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
Aroclor-1268	na	na	40 U	38 U	3.9 U	40 U	110 U	3.9 U	na	na
Total PCBs	na	na	740 J	89	3.9 U	1,400	7,200	3.9 U	na	na
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical			EW10-SC07B			EW10-SC08				
	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	na	na	22.7	6.0	na	0.1 U	0.4	na	na	na
Fractional % phi -1-0 (1000-2000 microns)	na	na	7.4	1.0	na	0.6	1.2	na	na	na
Fractional % phi 0-1 (500-1000 microns)	na	na	11.6	5.9	na	1.5	1.3	na	na	na
Fractional % phi 1-2 (250-500 microns)	na	na	18.4	35.2	na	2.6	3.0	na	na	na
Fractional % phi 2-3 (125-250 microns)	na	na	12.1	33.5	na	3.8	4.9	na	na	na
Fractional % phi 3-4 (62.5-125 microns)	na	na	2.8	4.9	na	4.9	6.2	na	na	na
Fractional % phi 4-5 (31.2-62.5 microns)	na	na	2.8	2.1	na	7.4	8.7	na	na	na
Fractional % phi 5-6 (15.6-31.2 microns)	na	na	3.5	2.6	na	9.6	9.2	na	na	na
Fractional % phi 6-7 (7.8-15.6 microns)	na	na	4.9	2.9	na	18.5	17.9	na	na	na
Fractional % phi 7-8 (3.9-7.8 microns)	na	na	4.5	1.9	na	14.6	12.4	na	na	na
Fractional % phi 8-9 (1.95-3.9 microns)	na	na	3.2	1.4	na	9.8	8.9	na	na	na
Fractional % phi 9-10 (0.98-1.95 microns)	na	na	2.6	0.9	na	8.0	7.2	na	na	na
Fractional % phi 10+ (<0.98 micron)	na	na	3.6	1.7	na	18.7	18.8	na	na	na

Chemical			EW10-SC07B			EW10-SC08				
	EW10-SC06-6-7.4	EW10-SC06-7.4-10	EW10-SC07B-0.0-2.3	EW10-SC07B-2.3-4	EW10-SC07B-4-6	EW10-SC08-0-2	EW10-SC08-2-4	EW10-SC08-6-8	EW10-SC08-8-9.4	EW10-SC08-9.4-11
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	6-7.4 ft	7.4-10 ft	0-2.3 ft	2.3-4 ft	4-6 ft	0-2 ft	2-4 ft	6-8 ft	8-9.4 ft	9.4-11 ft
Total gravel	na	na	22.7	6.0	na	0.1 U	0.4	na	na	na
Total sand	na	na	52.3	80.5	na	13.4	16.6	na	na	na
Total silt	na	na	15.7	9.5	na	50.1	48.2	na	na	na
Total clay	na	na	9.4	4.0	na	36.5	34.9	na	na	na
Total fines (percent silt+clay)	na	na	25.1	13.5	na	86.6	83.1	na	na	na
Conventionals										
Total organic carbon (TOC)	2.32	1.18	1.63	0.656	0.675	1.45	2.42	2.29	0.694	0.427
Total solids	60.40	78.50	75.20	76.90	72.70	50.10	47.60	59.20	70.30	77.80

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
Metals										
Antimony	10 UJ	10 UJ	na	na	na	8 UJ	7 UJ	na	na	9 UJ
Arsenic	21.5	21.5	na	na	na	19.8	10.2	na	na	19.9
Cadmium	2.1	3.1	na	na	na	1.0	0.8	na	na	1.4
Chromium	52	72	na	na	na	38.2	25.2	na	na	43.5
Cobalt	9.9	11.0	na	na	na	9.1	5.7	na	na	10.4
Copper	126	141	na	na	na	105	45.0	na	na	133
Lead	155	253	na	na	na	80	52	na	na	143
Mercury	0.51 J	0.89 J	0.74	0.03 U	0.03 U	0.27	0.22	na	na	0.45
Molybdenum	4	5	na	na	na	1.8	2.0	na	na	2.6
Nickel	27	32	na	na	na	26	15	na	na	29
Selenium	1	1	na	na	na	0.8 U	0.7 U	na	na	0.9 U
Silver	1.3	2.6	na	na	na	0.8	0.6	na	na	1.3
Thallium	0.4 U	0.5 U	na	na	na	0.3 U	0.3 U	na	na	0.4 U
Vanadium	70.3	76.5	na	na	na	62.5	48.3	na	na	74.7
Zinc	282	350	na	na	na	168	86	na	na	198
Organometals										
Monobutyltin as ion	na	na	na	na	na	4.8	3.4 U	na	na	na
Dibutyltin as ion	na	na	na	na	na	20	4.8 U	na	na	na
Tributyltin as ion	na	na	na	na	na	120 J	11 J	na	na	na
PAHs										
1-Methylnaphthalene	94	67	270 J	260	na	26 U	24 U	na	na	12 J
2-Chloronaphthalene	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
2-Methylnaphthalene	82	66	420 U	40	na	26 U	24 U	na	na	16 J
Acenaphthene	170	110	770	160	na	26 U	24 U	na	na	22
Acenaphthylene	110	200	220 J	20 U	na	18 J	25	na	na	21

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
Anthracene	630	1,400	3,000	20 U	na	73	81	na	na	65
Benzo(a)anthracene	760	2,400	3,600	20 U	na	160	170	na	na	130
Benzo(a)pyrene	1,300	2,300	2,500	20 U	na	290	310	na	na	240
Benzo(g,h,i)perylene	250	400	880	20 U	na	83	89	na	na	76
Total benzofluoranthenes	1,900	2,800	4,400	20 U	na	560	600	na	na	480
Chrysene	1,800	3,500	3,800	20 U	na	290	340	na	na	220
Dibenzo(a,h)anthracene	240 J	240 J	430	6.2 U	na	42	44	na	na	43
Dibenzofuran	52	63	340 J	20 U	na	26 U	24 U	na	na	18 J
Fluoranthene	1,900	3,000	8,100	20 U	na	260	500	na	na	290
Fluorene	220	180	900	20 U	na	18 J	17 J	na	na	26
Indeno(1,2,3-cd)pyrene	260	430	860	20 U	na	85	86	na	na	85
Naphthalene	94	130	680	950	na	14 J	20 J	na	na	32
Phenanthrene	1,500	1,000	3,700	20 U	na	130	92	na	na	180
Pyrene	2,600 J	4,300 J	10,000	20 U	na	340	1,100	na	na	380
Total HPAHs	11,000 J	19,400 J	35,000	20 U	na	2,110	3,200	na	na	1,940
Total LPAHs	2,700	3,000	9,300 J	1,110	na	250 J	235 J	na	na	350
cPAHs - mammal - half DL	1,700 J	3,000 J	3,600	14 U	na	390	420	na	na	330
Total PAHs	13,700 J	22,400 J	44,000 J	1,110	na	2,360 J	3,500 J	na	na	2,290
Phthalates										
Bis(2-ethylhexyl)phthalate	260	630	1,800	23	na	270	130	na	na	660 U
Butyl benzyl phthalate	47	76	52 J	16 U	na	33	15 U	na	na	58 J
Diethyl phthalate	20 U	20 U	15 U	20 U	na	26 U	24 U	na	na	20 U
Dimethyl phthalate	19	16	15 U	16 U	na	15 U	15 U	na	na	16 J
Di-n-butyl phthalate	44	20 U	420 U	20 U	na	18 J	24 U	na	na	53
Di-n-octyl phthalate	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
Other SVOCs										

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
1,2,4-Trichlorobenzene	6.1 U	7.4	14 U	6.2 U	na	6.1 U	6.1 U	na	na	6.1 U
1,2-Dichlorobenzene	6.1 U	6.2 U	6.1 U	6.2 U	na	6.1 U	6.1 U	na	na	6.1 U
1,3-Dichlorobenzene	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
1,4-Dichlorobenzene	21	15	8.5	6.2 U	na	12	6.1 U	na	na	18
2,4,5-Trichlorophenol	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
2,4,6-Trichlorophenol	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
2,4-Dichlorophenol	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
2,4-Dimethylphenol	20	17	6.1 U	8.7	na	6.1 U	6.1 U	na	na	6.1 U
2,4-Dinitrophenol	200 U	200 U	4,200 U	200 U	na	260 U	240 U	na	na	200 U
2,4-Dinitrotoluene	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
2,6-Dinitrotoluene	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
2-Chlorophenol	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
2-Methylphenol	8.5	7.4	6.1 U	6.2 U	na	6.1 U	6.1 U	na	na	6.1 U
2-Nitroaniline	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
2-Nitrophenol	98 U	99 U	420 U	20 U	na	130 U	120 U	na	na	98 U
3,3'-Dichlorobenzidine	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
3-Nitroaniline	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
4,6-Dinitro-o-cresol	200 U	200 U	4,200 U	200 U	na	260 U	240 U	na	na	200 U
4-Bromophenyl phenyl ether	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
4-Chloro-3-methylphenol	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
4-Chloroaniline	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
4-Chlorophenyl phenyl ether	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
4-Methylphenol	16 J	18 J	420 U	20 U	na	26 U	24 U	na	na	11 J
4-Nitroaniline	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
4-Nitrophenol	98 U	99 U	2,100 U	98 U	na	130 U	120 U	na	na	98 U
Aniline	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
Benzoic acid	200 U	71 J	4,200 U	200 U	na	260 U	240 U	na	na	200 U
Benzyl alcohol	20 U	20 U	30 U	20 U	na	26 U	24 U	na	na	20 U
bis(2-chloroethoxy)methane	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
bis(2-chloroethyl)ether	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
bis(2-chloroisopropyl)ether	20 U	20 U	420 U	20 U	na	26 UJ	24 UJ	na	na	20 U
Carbazole	170	250	280 J	110	na	28	22 J	na	na	31
Hexachlorobenzene	6.1 U	6.2 U	6.1 U	6.2 U	na	6.1 U	6.1 U	na	na	6.1 U
Hexachlorobutadiene	6.1 U	6.2 U	6.1 U	6.2 U	na	6.1 U	6.1 U	na	na	6.1 U
Hexachlorocyclopentadiene	98 UJ	99 UJ	2,100 U	98 U	na	130 U	120 U	na	na	98 U
Hexachloroethane	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
Isophorone	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
n-Nitroso-di-n-propylamine	30 U	31 U	34 J	31 U	na	30 U	30 U	na	na	30 U
n-Nitrosodimethylamine	30 U	31 U	30 U	31 U	na	30 U	30 U	na	na	30 U
n-Nitrosodiphenylamine	10 U	20 U	46 U	6.2 U	na	6.1 U	6.1 U	na	na	6.7 U
Nitrobenzene	20 U	20 U	420 U	20 U	na	26 U	24 U	na	na	20 U
Pentachlorophenol	30 U	81	30 U	31 U	na	30 U	30 U	na	na	30 U
Phenol	20 U	20 U	420 U	33	na	26 U	24 U	na	na	20 U
PCBs										
Aroclor-1016	49 U	48 U	37 U	19 U	na	67 U	55 U	20 U	3.9 U	34 U
Aroclor-1221	49 U	48 U	37 U	19 U	na	67 U	55 U	20 U	3.9 U	34 U
Aroclor-1232	49 U	48 U	37 U	19 U	na	67 U	55 U	20 U	3.9 U	34 U
Aroclor-1242	49 U	48 U	37 U	19 U	na	67 U	55 U	20 U	3.9 U	90
Aroclor-1248	140	240	340	19 U	na	120 JN	87 JN	20 U	3.9 U	34 U
Aroclor-1254	390	660	620	19 U	na	230	160	20 U	3.9 U	340
Aroclor-1260	640	1,000	760	19 U	na	320	190	27	3.9 U	340
Aroclor-1262	49 U	48 U	37 U	19 U	na	67 U	55 U	20 U	3.9 U	34 U

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
Aroclor-1268	49 U	48 U	37 U	19 U	na	67 U	55 U	20 U	3.9 U	34 U
Total PCBs	1,170	1,900	1,720	19 U	na	670 JN	440 JN	27	3.9 U	770
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	15 U
2,4'-DDE	na	na	na	na	na	na	na	na	na	15 U
2,4'-DDT	na	na	na	na	na	na	na	na	na	15 U
4,4'-DDD	na	na	na	na	na	na	na	na	na	15 U
4,4'-DDE	na	na	na	na	na	na	na	na	na	15 U
4,4'-DDT	na	na	na	na	na	na	na	na	na	15 U
Total DDTs	na	na	na	na	na	na	na	na	na	15 U
Aldrin	na	na	na	na	na	na	na	na	na	7.4 U
Dieldrin	na	na	na	na	na	na	na	na	na	15 U
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	15 U
alpha-BHC	na	na	na	na	na	na	na	na	na	7.4 U
beta-BHC	na	na	na	na	na	na	na	na	na	7.4 U
gamma-BHC	na	na	na	na	na	na	na	na	na	7.4 U
delta-BHC	na	na	na	na	na	na	na	na	na	7.4 U
alpha-Chlordane	na	na	na	na	na	na	na	na	na	7.4 U
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	7.4 U
Total chlordane	na	na	na	na	na	na	na	na	na	15 U
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	7.4 U
beta-Endosulfan	na	na	na	na	na	na	na	na	na	15 U
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	15 U
Endrin	na	na	na	na	na	na	na	na	na	15 U

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	15 U
Endrin ketone	na	na	na	na	na	na	na	na	na	15 U
Heptachlor	na	na	na	na	na	na	na	na	na	7.4 U
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	7.4 U
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	74 U
Mirex	na	na	na	na	na	na	na	na	na	15 U
cis-Nonachlor	na	na	na	na	na	na	na	na	na	15 U
trans-Nonachlor	na	na	na	na	na	na	na	na	na	15 U
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	15 U
Toxaphene	na	na	na	na	na	na	na	na	na	740 U
Grain size										
Fractional % phi >-1 (>2000 microns)	7.5	5.6	na	na	na	16.9	7.9	na	na	3.7
Fractional % phi -1-0 (1000-2000 microns)	5.4	6.2	na	na	na	2.3	2.1	na	na	0.6
Fractional % phi 0-1 (500-1000 microns)	2.8	3.5	na	na	na	4.9	5.0	na	na	2.8
Fractional % phi 1-2 (250-500 microns)	4.5	4.1	na	na	na	17.0	23.9	na	na	9.6
Fractional % phi 2-3 (125-250 microns)	5.0	4.9	na	na	na	9.3	28.1	na	na	7.1
Fractional % phi 3-4 (62.5-125 microns)	5.5	4.5	na	na	na	3.8	6.9	na	na	5.4
Fractional % phi 4-5 (31.2-62.5 microns)	4.8	3.5	na	na	na	2.9	6.2	na	na	5.8
Fractional % phi 5-6 (15.6-31.2 microns)	11.2	7.7	na	na	na	8.2	4.1	na	na	7.1
Fractional % phi 6-7 (7.8-15.6 microns)	22.1	21.1	na	na	na	9.7	4.4	na	na	17.5
Fractional % phi 7-8 (3.9-7.8 microns)	8.8	10.7	na	na	na	7.6	3.4	na	na	12.1
Fractional % phi 8-9 (1.95-3.9 microns)	5.0	7.5	na	na	na	5.6	2.7	na	na	7.1
Fractional % phi 9-10 (0.98-1.95 microns)	5.2	6.0	na	na	na	4.3	1.8	na	na	6.2
Fractional % phi 10+ (<0.98 micron)	12.3	14.8	na	na	na	7.4	3.5	na	na	15.1

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC09					EW10-SC10				
	EW10-SC09-0-2	EW10-SC09-2-4	EW10-SC09-6-7.2	EW10-SC09-7.2-9.2	EW10-SC09-9.2-11.2	EW10-SC10-0-2.4	EW10-SC10-2.4-4	EW10-SC10-4-6	EW10-SC10-6-8	EW10-SC11-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-2 ft	2-4 ft	6-7.2 ft	7.2-9.2 ft	9.2-11.2 ft	0-2.4 ft	2.4-4 ft	4-6 ft	6-8 ft	0-2 ft
Total gravel	7.5	5.6	na	na	na	16.9	7.9	na	na	3.7
Total sand	23.2	23.2	na	na	na	37.3	66.0	na	na	25.5
Total silt	46.9	43.0	na	na	na	28.4	18.1	na	na	42.5
Total clay	22.5	28.3	na	na	na	17.3	8.0	na	na	28.4
Total fines (percent silt+clay)	69.4	71.3	na	na	na	45.7	26.1	na	na	70.9
Conventionals										
Total organic carbon (TOC)	3.99	5.29	4.39	0.403	0.424	2.36	2.46	0.842	0.344	1.91
Total solids	40.80	40.70	52.60	77.30	75.70	60.90	70.20	78.50	73.60	54.50

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
Metals										
Antimony	9 UJ	na	na	10 UJ	8 UJ	na	na	9 UJ	5 UJ	7 UJ
Arsenic	19.5	na	na	20.5	25.2	na	na	16.1 J	2.4 J	13.1
Cadmium	5.2	2.1	na	3.8	5.0	na	na	1.7	0.2 U	1.4
Chromium	105	na	na	78	81.4	na	na	51.2	26.3	41.9
Cobalt	12.8	na	na	12.3	11.6	na	na	11.6	6.5	10.0
Copper	159	na	na	180	212	na	na	127 J	13.1 J	86.7
Lead	249	na	na	215	259	na	na	113 J	3 J	88
Mercury	1.26	0.73	0.03 U	0.84	3.20	0.02	0.03	0.49 J	0.02 UJ	0.37 J
Molybdenum	7.2	na	na	5	5.4	na	na	3.1	0.5 U	1.9
Nickel	46	na	na	39	39	na	na	34	36	32
Selenium	0.9 U	na	na	0.9 U	0.8 U	na	na	0.9 U	0.5 U	0.8 U
Silver	5.6	na	na	3.6	4.0	na	na	1.4	0.3 U	1.1
Thallium	0.5	na	na	0.4	0.4	na	na	0.4 U	0.2 U	0.3 U
Vanadium	83.6	na	na	78.6	72.7	na	na	77.4	37.1	62.2
Zinc	381	na	na	300	364	na	na	217	31	158
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	na	na
Dibutyltin as ion	na	na	na	na	na	na	na	na	na	na
Tributyltin as ion	na	na	na	na	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	32 U	58 UJ	na	38 U	36 U	20 UJ	na	22	19 U	20 U
2-Chloronaphthalene	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
2-Methylnaphthalene	24 J	58 U	na	21 J	28 J	20 U	na	36	19 U	20 U
Acenaphthene	17 J	58 U	na	22 J	26 J	20 U	na	30	19 U	14 J
Acenaphthylene	25 J	58 U	na	31 J	36 U	20 U	na	56	19 U	10 J

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
Anthracene	93	90	na	110	140	20 U	na	160	19 U	33
Benzo(a)anthracene	220	180	na	190	350	20 U	na	250	19 U	88
Benzo(a)pyrene	260	240	na	480	380	20 U	na	470	19 U	180
Benzo(g,h,i)perylene	77	140	na	99	87	20 U	na	150	19 U	33
Total benzofluoranthenes	520	310	na	1,000	840	20 U	na	980	18 J	420
Chrysene	310	320	na	380	530	20 U	na	490	19 U	180
Dibenzo(a,h)anthracene	34	44 J	na	56	45	20 U	na	87	5.9 U	19 J
Dibenzofuran	32 U	58 U	na	38 U	24 J	20 U	na	26	19 U	20 U
Fluoranthene	580	440	na	440	760	11 J	na	470	19 U	130
Fluorene	22 J	58 U	na	23 J	46	20 U	na	44	19 U	12 J
Indeno(1,2,3-cd)pyrene	80	130	na	93	82	20 U	na	160	19 U	36
Naphthalene	35	58 U	na	32 J	38	20 U	na	100	19 U	11 J
Phenanthrene	120	150	na	170	120	20 U	na	210	19 U	55
Pyrene	630	780	na	980	990	11 J	na	580	19 U	240
Total HPAHs	2,710	2,580 J	na	3,700	4,060	22 J	na	3,640	18 J	1,330 J
Total LPAHs	310 J	240	na	390 J	370 J	20 U	na	600	19 U	135 J
cPAHs - mammal - half DL	360	320 J	na	630	530	17 U	na	650	15 J	240 J
Total PAHs	3,020 J	2,820 J	na	4,100 J	4,430 J	22 J	na	4,240	18 J	1,460 J
Phthalates										
Bis(2-ethylhexyl)phthalate	1,600	290	na	1,500	2,000	18 J	na	510	23	190
Butyl benzyl phthalate	62 J	22 J	na	49	63	14 U	na	49	15 U	34
Diethyl phthalate	32 U	15 U	na	38 U	36 U	14 U	na	20	19 U	15 J
Dimethyl phthalate	15 U	15 U	na	15	16 U	14 U	na	15 U	15 U	15 U
Di-n-butyl phthalate	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	15 J
Di-n-octyl phthalate	32 U	86	na	38 U	36 U	20 U	na	20 U	19 U	20 U
Other SVOCs										

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
1,2,4-Trichlorobenzene	6.2 U	6.0 U	na	6.1 U	6.2 U	5.8 U	na	6.1 U	5.9 U	6.0 U
1,2-Dichlorobenzene	6.2 U	6.0 U	na	6.1 U	6.2 U	5.8 U	na	6.1 U	5.9 U	6.0 U
1,3-Dichlorobenzene	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
1,4-Dichlorobenzene	13	6.0 U	na	22	19	5.8 U	na	50	5.9 U	25
2,4,5-Trichlorophenol	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
2,4,6-Trichlorophenol	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
2,4-Dichlorophenol	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
2,4-Dimethylphenol	6.2 U	6.0 U	na	6.1 U	6.2 U	5.8 U	na	6.1 U	5.9 UJ	6.0 U
2,4-Dinitrophenol	320 U	580 U	na	380 U	360 U	200 U	na	200 U	190 U	200 U
2,4-Dinitrotoluene	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
2,6-Dinitrotoluene	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
2-Chlorophenol	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
2-Methylphenol	6.2 U	6.0 U	na	6.1 U	6.2 U	5.8 U	na	6.1 U	5.9 UJ	6.0 U
2-Nitroaniline	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
2-Nitrophenol	160 U	58 U	na	190 U	180 U	20 U	na	98 U	97 U	98 U
3,3'-Dichlorobenzidine	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
3-Nitroaniline	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
4,6-Dinitro-o-cresol	320 U	580 U	na	380 U	360 U	200 U	na	200 U	190 U	200 U
4-Bromophenyl phenyl ether	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
4-Chloro-3-methylphenol	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
4-Chloroaniline	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
4-Chlorophenyl phenyl ether	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
4-Methylphenol	25 J	58 U	na	38 U	36 U	20 U	na	31	19 U	20 U
4-Nitroaniline	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
4-Nitrophenol	160 U	290 U	na	190 U	180 U	98 U	na	98 U	97 U	98 U
Aniline	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
Benzoic acid	320 U	580 U	na	380 U	360 U	200 U	na	200 U	190 U	200 U
Benzyl alcohol	32 U	30 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
bis(2-chloroethoxy)methane	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
bis(2-chloroethyl)ether	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
bis(2-chloroisopropyl)ether	32 U	58 U	na	38 UJ	36 UJ	20 U	na	20 U	19 U	20 U
Carbazole	32 U	58 U	na	38 U	36 U	20 U	na	48	19 U	11 J
Hexachlorobenzene	6.2 U	0.65	na	6.1 U	6.2 U	5.8 U	na	6.1 U	5.9 U	6.0 U
Hexachlorobutadiene	6.2 U	6.0 U	na	6.1 U	6.2 U	5.8 U	na	6.1 U	5.9 U	6.0 U
Hexachlorocyclopentadiene	160 U	290 U	na	190 U	180 U	98 U	na	98 UJ	97 UJ	98 U
Hexachloroethane	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
Isophorone	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
n-Nitroso-di-n-propylamine	31 U	49	na	30 U	31 U	29 U	na	30 U	30 U	30 U
n-Nitrosodimethylamine	31 U	30 U	na	30 U	31 U	29 U	na	30 U	30 U	30 U
n-Nitrosodiphenylamine	10 U	8.3 U	na	6.1 U	22 U	5.8 U	na	6.1 U	5.9 U	6.0 U
Nitrobenzene	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
Pentachlorophenol	31 U	30 U	na	30 U	35 U	29 U	na	30 U	30 UJ	30 U
Phenol	32 U	58 U	na	38 U	36 U	20 U	na	20 U	19 U	20 U
PCBs										
Aroclor-1016	39 U	20 U	20 U	77 U	69 U	3.9 U	na	20 U	3.9 U	32 U
Aroclor-1221	39 U	20 U	20 U	77 U	69 U	3.9 U	na	20 U	3.9 U	32 U
Aroclor-1232	39 U	20 U	20 U	77 U	69 U	3.9 U	na	20 U	3.9 U	32 U
Aroclor-1242	840	20 U	20 U	77 U	69 U	3.9 U	na	20 U	3.9 U	32 U
Aroclor-1248	39 U	53	20 U	1,000 J	970	3.9 U	na	200	3.9 U	140
Aroclor-1254	1,400	94	20 U	1,200	1,200	3.9 U	na	490	6.8	300
Aroclor-1260	1,100	160	20 U	1,200	1,100	3.9 U	na	660	9.2	410
Aroclor-1262	39 U	20 U	20 U	77 U	69 U	3.9 U	na	20 U	3.9 U	32 U

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
Aroclor-1268	39 U	20 U	20 U	77 U	69 U	3.9 U	na	20 U	3.9 U	32 U
Total PCBs	3,300	310	20 U	3,400 J	3,300	3.9 U	na	1,350	16.0	850
Pesticides										
2,4'-DDD	40 U	2.1	na	na	na	na	na	na	na	na
2,4'-DDE	40 U	0.23 U	na	na	na	na	na	na	na	na
2,4'-DDT	40 U	0.039 U	na	na	na	na	na	na	na	na
4,4'-DDD	40 U	7.5 J	na	na	na	na	na	na	na	na
4,4'-DDE	100 J	5.3	na	na	na	na	na	na	na	na
4,4'-DDT	290 U	0.039 U	na	na	na	na	na	na	na	na
Total DDTs	100 J	14.9 J	na	na	na	na	na	na	na	na
Aldrin	20 U	R	na	na	na	na	na	na	na	na
Dieldrin	40 U	0.39 U	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	40 U	0.39 U	na	na	na	na	na	na	na	na
alpha-BHC	20 U	0.039 U	na	na	na	na	na	na	na	na
beta-BHC	20 U	0.039 U	na	na	na	na	na	na	na	na
gamma-BHC	20 U	0.039 U	na	na	na	na	na	na	na	na
delta-BHC	67 U	R	na	na	na	na	na	na	na	na
alpha-Chlordane	20 U	0.54	na	na	na	na	na	na	na	na
beta-Chlordane	na	0.95	na	na	na	na	na	na	na	na
gamma-Chlordane	110 U	na	na	na	na	na	na	na	na	na
Total chlordane	110 U	1.87 J	na	na	na	na	na	na	na	na
Chlorpyrifos	na	0.039 U	na	na	na	na	na	na	na	na
alpha-Endosulfan	20 U	0.16 U	na	na	na	na	na	na	na	na
beta-Endosulfan	40 U	0.077 U	na	na	na	na	na	na	na	na
Endosulfan sulfate	40 U	0.039 U	na	na	na	na	na	na	na	na
Endrin	40 U	0.16 U	na	na	na	na	na	na	na	na

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
Endrin aldehyde	40 U	0.077 U	na	na	na	na	na	na	na	na
Endrin ketone	40 U	0.085 U	na	na	na	na	na	na	na	na
Heptachlor	20 U	0.077 U	na	na	na	na	na	na	na	na
Heptachlor epoxide	130 U	0.077 U	na	na	na	na	na	na	na	na
Isodrin	na	0.16 U	na	na	na	na	na	na	na	na
Methoxychlor	200 U	0.039 U	na	na	na	na	na	na	na	na
Mirex	40 U	0.077 U	na	na	na	na	na	na	na	na
cis-Nonachlor	40 U	0.11 J	na	na	na	na	na	na	na	na
trans-Nonachlor	40 U	0.27	na	na	na	na	na	na	na	na
Octachlorostyrene	na	0.077 U	na	na	na	na	na	na	na	na
Oxychlordane	40 U	0.16 U	na	na	na	na	na	na	na	na
Toxaphene	2,000 U	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1 U	na	na	0.2	0.1	na	na	0.5	60.1	35.6
Fractional % phi -1-0 (1000-2000 microns)	0.8	na	na	0.1	0.2	na	na	1.0	8.2	7.9
Fractional % phi 0-1 (500-1000 microns)	1.3	na	na	0.3	1.1	na	na	1.7	10.4	5.9
Fractional % phi 1-2 (250-500 microns)	3.4	na	na	2.3	4.5	na	na	2.3	15.1	7.9
Fractional % phi 2-3 (125-250 microns)	6.8	na	na	4.7	7.5	na	na	2.8	4.2	4.0
Fractional % phi 3-4 (62.5-125 microns)	6.2	na	na	4.6	6.6	na	na	4.9	0.4	2.4
Fractional % phi 4-5 (31.2-62.5 microns)	5.5	na	na	8.2	7.1	na	na	6.2	na	5.9
Fractional % phi 5-6 (15.6-31.2 microns)	8.2	na	na	11.3	10.7	na	na	12.1	na	3.8
Fractional % phi 6-7 (7.8-15.6 microns)	14.2	na	na	15.7	15.1	na	na	15.7	na	7.2
Fractional % phi 7-8 (3.9-7.8 microns)	14.7	na	na	17.4	13.6	na	na	15.9	na	5.5
Fractional % phi 8-9 (1.95-3.9 microns)	11.7	na	na	12.1	10.5	na	na	11.7	na	3.6
Fractional % phi 9-10 (0.98-1.95 microns)	8.0	na	na	8.1	7.6	na	na	8.0	na	2.8
Fractional % phi 10+ (<0.98 micron)	19.2	na	na	14.9	15.4	na	na	17.3	na	7.3

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC11			EW10-SC12				EW10-SC13		
	EW10-SC11-2-4	EW10-SC11-4-6	EW10-SC11-6-8	EW10-SC12-0-2	EW10-SC12-2-3.1	EW10-SC12-5-7	EW10-SC12-7-9	EW10-SC13-0-1.6	EW10-SC13-1.6-4	EW10-SC14-0-2.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-6 ft	6-8 ft	0-2 ft	2-3.1 ft	5-7 ft	7-9 ft	0-1.6 ft	1.6-4 ft	0-2.8 ft
Total gravel	0.1 U	na	na	0.2	0.1	na	na	0.5	60.1	35.6
Total sand	18.5	na	na	12.0	19.9	na	na	12.7	38.3	28.1
Total silt	42.6	na	na	52.6	46.5	na	na	49.9	na	22.4
Total clay	38.9	na	na	35.1	33.5	na	na	37.0	na	13.7
Total fines (percent silt+clay)	81.5	na	na	87.7	80.0	na	na	86.9	na	36.1
Conventionals										
Total organic carbon (TOC)	2.67	1.97	1.74	2.87	3.89	0.345	1.29	2.02	0.093	2.02
Total solids	49.90	62.1	79.30	51.00	57.30	89.70	84.00	51.10	90.30	63.50

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
Metals										
Antimony	7 UJ	na	8 UJ	6 UJ	8 UJ	7 UJ	na	na	9 UJ	9 UJ
Arsenic	10.3	na	16.7	4.8	15.0	11.6	na	na	15.3	20.6
Cadmium	1.7	na	2.2	0.3 U	1.5	1.0	na	na	1.5	5.0
Chromium	40.1	na	49.4	22.0	47.2	33.8	na	na	47.8	96.2
Cobalt	7.9	na	10.1	6.9	12.5	10.1	na	na	11.4	13.9
Copper	59.6	na	146	23.0	84.9	51.6	na	na	126	177
Lead	96	na	162	6	105	37	na	na	115	261
Mercury	0.40 J	na	0.70	0.08	0.43 J	0.47 J	0.13	0.09	0.54 J	1.35 J
Molybdenum	2.7	na	2.7	0.6 U	1.8	1.9	na	na	2.4	4.7
Nickel	23	na	31	18	46	28	na	na	30	43
Selenium	0.7 U	na	0.8 U	0.6 U	0.8 U	0.8	na	na	0.9 U	0.9 U
Silver	1.4	na	1.7	0.4 U	1.2	0.4 U	na	na	1.5	5.2
Thallium	0.3 U	na	0.3 U	0.2 U	0.3 U	0.3 U	na	na	0.4 U	0.4
Vanadium	57.9	na	69.4	52.3	61.6	68.1	na	na	74.8	83.3
Zinc	132	na	211	41	149	89	na	na	189	355
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	4.8	3.7 U
Dibutyltin as ion	na	na	na	na	na	na	na	na	17 J	5.2 UJ
Tributyltin as ion	na	na	na	na	na	na	na	na	150	41
PAHs										
1-Methylnaphthalene	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	66
2-Chloronaphthalene	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
2-Methylnaphthalene	12 J	na	20 J	20 U	10 J	22 U	na	na	20 U	43
Acenaphthene	27	na	22 J	20 U	12 J	24	na	na	13 J	41
Acenaphthylene	19 U	na	32	20 U	15 J	22 U	na	na	17 J	19 J

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
Anthracene	51	na	110	17 J	45	56	na	na	50	92
Benzo(a)anthracene	120	na	160	26	90	86	na	na	120	190
Benzo(a)pyrene	78	na	420	20	210	62	na	na	230	190
Benzo(g,h,i)perylene	16 J	na	89	20 U	41	16 J	na	na	50	37
Total benzofluoranthenes	170	na	880	28 J	420	120	na	na	500	400
Chrysene	190	na	380	27	170	130	na	na	250	280
Dibenzo(a,h)anthracene	6.8 J	na	44	6.0 U	48 J	16 J	na	na	28 J	20 J
Dibenzofuran	15 J	na	17 J	20 U	20 U	19 J	na	na	20 U	23 J
Fluoranthene	500	na	340	45	200	190	na	na	260	470
Fluorene	26	na	28 J	12 J	11 J	31	na	na	14 J	62
Indeno(1,2,3-cd)pyrene	15 J	na	88	20 U	42	16 J	na	na	51	32
Naphthalene	19 J	na	34	20 U	14 J	18 J	na	na	14 J	25 J
Phenanthrene	78	na	170	54	82	110	na	na	130	230
Pyrene	320	na	880	61	370	280	na	na	320	450
Total HPAHs	1,420 J	na	3,280	207 J	1,590 J	920 J	na	na	1,810 J	2,070 J
Total LPAHs	201 J	na	400 J	83 J	179 J	240 J	na	na	240 J	470 J
cPAHs - mammal - half DL	110 J	na	550	28 J	290 J	92 J	na	na	310 J	260 J
Total PAHs	1,620 J	na	3,680 J	290 J	1,770 J	1,200 J	na	na	2,050 J	2,540 J
Phthalates										
Bis(2-ethylhexyl)phthalate	510	na	600	13 J	430	54 U	na	na	310	970
Butyl benzyl phthalate	36	na	32	15 U	31	15 U	na	na	67	42
Diethyl phthalate	19 U	na	30 U	20 U	20 U	20 J	na	na	20 U	30 U
Dimethyl phthalate	15 U	na	15 U	15 U	14 U	15 U	na	na	15 U	15 U
Di-n-butyl phthalate	21	na	30 U	20 U	20 U	14 J	na	na	18 J	30 U
Di-n-octyl phthalate	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
Other SVOCs										

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
1,2,4-Trichlorobenzene	6.1 U	na	6.0 U	6.0 U	5.8 U	6.0 U	na	na	6.1 U	6.0 U
1,2-Dichlorobenzene	6.1 U	na	6.0 U	6.0 U	5.8 U	6.0 U	na	na	6.1 U	6.0 U
1,3-Dichlorobenzene	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
1,4-Dichlorobenzene	12	na	18	6.0 U	37	6.0 U	na	na	32	26
2,4,5-Trichlorophenol	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
2,4,6-Trichlorophenol	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
2,4-Dichlorophenol	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
2,4-Dimethylphenol	9.2	na	6.0 U	6.0 U	5.8 U	6.0 U	na	na	6.1 U	7.8 U
2,4-Dinitrophenol	190 U	na	300 U	200 U	200 U	220 U	na	na	200 U	300 U
2,4-Dinitrotoluene	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
2,6-Dinitrotoluene	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
2-Chlorophenol	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
2-Methylphenol	6.1 U	na	6.0 U	6.0 U	5.8 U	6.0 U	na	na	6.1 U	6.0 U
2-Nitroaniline	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
2-Nitrophenol	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
3,3'-Dichlorobenzidine	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
3-Nitroaniline	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
4,6-Dinitro-o-cresol	190 U	na	300 U	200 U	200 U	220 U	na	na	200 U	300 U
4-Bromophenyl phenyl ether	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
4-Chloro-3-methylphenol	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
4-Chloroaniline	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
4-Chlorophenyl phenyl ether	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
4-Methylphenol	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
4-Nitroaniline	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
4-Nitrophenol	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
Aniline	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
Benzoic acid	190 U	na	300 U	200 U	200 U	220 U	na	na	200 U	300 U
Benzyl alcohol	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
bis(2-chloroethoxy)methane	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
bis(2-chloroethyl)ether	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
bis(2-chloroisopropyl)ether	19 U	na	30 UJ	20 UJ	20 U	22 U	na	na	20 U	30 U
Carbazole	19 U	na	35	20 U	20	22 U	na	na	21	30 U
Hexachlorobenzene	6.1 U	na	6.0 U	6.0 U	5.8 U	6.0 U	na	na	6.1 U	6.0 U
Hexachlorobutadiene	6.1 U	na	6.0 U	6.0 U	5.8 U	6.0 U	na	na	6.1 U	6.0 U
Hexachlorocyclopentadiene	97 U	na	150 U	98 U	98 U	110 U	na	na	99 U	150 U
Hexachloroethane	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
Isophorone	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
n-Nitroso-di-n-propylamine	31 U	na	30 U	30 U	29 U	30 U	na	na	31 U	58 U
n-Nitrosodimethylamine	31 U	na	30 U	30 U	29 U	30 U	na	na	31 U	30 U
n-Nitrosodiphenylamine	17 U	na	6.0 U	6.0 U	9.3 U	6.0 U	na	na	6.1 U	30 U
Nitrobenzene	19 U	na	30 U	20 U	20 U	22 U	na	na	20 U	30 U
Pentachlorophenol	31 U	na	30 U	30 U	29 UJ	30 UJ	na	na	31 U	30 U
Phenol	19 U	na	19 J	20 U	20 U	22 U	na	na	20 U	30 U
PCBs										
Aroclor-1016	30 U	3.9 U	110 U	3.9 U	32 U	3.9 U	na	na	39 U	64 U
Aroclor-1221	30 U	3.9 U	110 U	3.9 U	32 U	3.9 U	na	na	39 U	64 U
Aroclor-1232	30 U	3.9 U	110 U	3.9 U	32 U	3.9 U	na	na	39 U	64 U
Aroclor-1242	30 U	3.9 U	230	3.9 U	32 U	3.9 U	na	na	39 U	64 U
Aroclor-1248	390	3.9 U	110 U	7.2 JN	280	23	na	na	110	810
Aroclor-1254	500	3.9 U	540	7.4	470	26	na	na	230	940
Aroclor-1260	330	3.9 U	670	5.8	730	18	na	na	220	530
Aroclor-1262	30 U	3.9 U	110 U	3.9 U	32 U	3.9 U	na	na	39 U	64 U

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
Aroclor-1268	30 U	3.9 U	110 U	3.9 U	32 U	3.9 U	na	na	39 U	64 U
Total PCBs	1,220	3.9 U	1,440	20.4 JN	1,480	67	na	na	560	2,280
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.7	na	0.3	0.2	0.6	0.1 U	na	na	0.2	0.3
Fractional % phi -1-0 (1000-2000 microns)	0.4	na	0.5	0.4	0.5	0.1 U	na	na	0.3	0.6
Fractional % phi 0-1 (500-1000 microns)	3.9	na	1.2	0.6	1.9	0.4	na	na	0.8	0.7
Fractional % phi 1-2 (250-500 microns)	19.4	na	7.9	12.3	14.1	5.8	na	na	1.4	1.2
Fractional % phi 2-3 (125-250 microns)	13.3	na	11.0	30.1	13.3	3.9	na	na	3.5	4.4
Fractional % phi 3-4 (62.5-125 microns)	8.4	na	6.7	14.7	14.1	4.6	na	na	6.4	6.3
Fractional % phi 4-5 (31.2-62.5 microns)	7.4	na	9.2	9.6	5.2	7.2	na	na	8.3	8.5
Fractional % phi 5-6 (15.6-31.2 microns)	8.2	na	9.2	6.2	6.5	19.6	na	na	11.1	10.2
Fractional % phi 6-7 (7.8-15.6 microns)	8.8	na	14.1	7.4	12.7	16.9	na	na	24.3	20.9
Fractional % phi 7-8 (3.9-7.8 microns)	8.6	na	11.6	5.1	9.4	12.9	na	na	13.2	14.1
Fractional % phi 8-9 (1.95-3.9 microns)	6.2	na	9.7	5.1	5.3	9.4	na	na	7.6	7.9
Fractional % phi 9-10 (0.98-1.95 microns)	4.2	na	5.7	3.2	4.1	6.0	na	na	6.4	7.7
Fractional % phi 10+ (<0.98 micron)	10.4	na	12.8	5.2	12.3	13.4	na	na	16.4	17.2

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC14		EW10-SC15		EW10-SC16					
	EW10-SC14-2.8-5.3	EW10-SC14-5.3-7.3	EW10-SC15-0-2.3	EW10-SC15-2.3-4	EW10-SC16-0-1.9	EW10-SC16-1.9-4	EW10-SC16-4-6	EW10-SC16-6-8.2	EW10-SC17-0-2	EW10-SC17-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2.8-5.3 ft	5.3-7.3 ft	0-2.3 ft	2.3-4 ft	0-1.9 ft	1.9-4 ft	4-6 ft	6-8.2 ft	0-2 ft	2-4 ft
Total gravel	0.7	na	0.3	0.2	0.6	0.1 U	na	na	0.2	0.3
Total sand	45.4	na	27.3	58.1	43.9	14.7	na	na	12.4	13.2
Total silt	33.0	na	44.1	28.3	33.8	56.6	na	na	56.9	53.7
Total clay	20.8	na	28.2	13.5	21.7	28.8	na	na	30.4	32.8
Total fines (percent silt+clay)	53.8	na	72.3	41.8	55.5	85.4	na	na	87.3	86.5
Conventionals										
Total organic carbon (TOC)	1.40	0.529	2.48	1.17	0.882	1.58	1.11	1.08	1.73	2.57
Total solids	69.00	78.40	58.40	73.40	60.80	66.10	66.50	74.80	51.80	50.10

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201 0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
Metals										
Antimony	na	na	na	8 UJ	8 UJ	na	na	8 UJ	8 UJ	6 UJ
Arsenic	na	na	na	12.0	13.2	na	na	12.1	13.8	2.8
Cadmium	na	na	na	1.7	2.7	na	na	2.0	2.1	0.3 U
Chromium	na	na	na	43.6	53.4	na	na	46.5	48.2	11.2
Cobalt	na	na	na	9.1	9.6	na	na	8.5	8.3	4.0
Copper	na	na	na	371	112	na	na	92.6	99.0	15.2
Lead	na	na	na	158	166	na	na	151	157	6
Mercury	2.54	0.80	0.09	0.56	0.65	0.10	0.03 U	0.52	0.62	0.02
Molybdenum	na	na	na	2.1	2.7	na	na	3.7	4.0	0.7
Nickel	na	na	na	26	31	na	na	27	28	8
Selenium	na	na	na	0.8 U	0.7 U	na	na	0.8 U	0.8 U	0.6 U
Silver	na	na	na	1.5	2.4	na	na	1.6	1.9	0.4 U
Thallium	na	na	na	0.3 U	0.3 U	na	na	0.3 U	0.3 U	0.2 U
Vanadium	na	na	na	63.0	62.8	na	na	62.9	61.2	40.4
Zinc	na	na	na	190	210	na	na	215	283	27
Organometals										
Monobutyltin as ion	na	na	na	3.8 U	3.4 U	na	na	na	na	na
Dibutyltin as ion	na	na	na	16	7.1	na	na	na	na	na
Tributyltin as ion	na	na	na	160 J	28 J	na	na	na	na	na
PAHs										
1-Methylnaphthalene	na	na	na	17 J	36 U	20 UJ	na	60 J	26	20 U
2-Chloronaphthalene	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
2-Methylnaphthalene	na	na	na	22 J	20 J	20 U	na	72 J	44	20 U
Acenaphthene	na	na	na	30	22 J	20 U	na	140	26	20 U
Acenaphthylene	na	na	na	43	37	20 U	na	31 J	25	20 U

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201 0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
Anthracene	na	na	na	150	150	20 U	na	270	88	20 U
Benzo(a)anthracene	na	na	na	200	370	13 J	na	560	180	12 J
Benzo(a)pyrene	na	na	na	610	540	19 J	na	670	370	14 J
Benzo(g,h,i)perylene	na	na	na	100	85	11 J	na	150	86	20 U
Total benzofluoranthenes	na	na	na	1,200	1,300	38 J	na	1,200	900	30 J
Chrysene	na	na	na	380	600	14 J	na	520	270	14 J
Dibenzo(a,h)anthracene	na	na	na	57	44	20 U	na	28 J	44 J	6.1 U
Dibenzofuran	na	na	na	28 J	19 J	20 U	na	68 J	25	20 U
Fluoranthene	na	na	na	340	530	22	na	920	280	18 J
Fluorene	na	na	na	39	25 J	20 U	na	120	34	20 U
Indeno(1,2,3-cd)pyrene	na	na	na	100	84	20 U	na	150	83	20 U
Naphthalene	na	na	na	54	37	20 U	na	120	79	17 J
Phenanthrene	na	na	na	180	130	11 J	na	840	190	14 J
Pyrene	na	na	na	1,900	2,300	92	na	1,500	850	69
Total HPAHs	na	na	na	4,900	5,900	209 J	na	5,700 J	3,060 J	157 J
Total LPAHs	na	na	na	500	400 J	11 J	na	1,520 J	440	31 J
cPAHs - mammal - half DL	na	na	na	790	740	29 J	na	880 J	510 J	21 J
Total PAHs	na	na	na	5,400	6,300 J	220 J	na	7,200 J	3,510 J	188 J
Phthalates										
Bis(2-ethylhexyl)phthalate	na	na	na	410	1,000	91	na	1,400	1,100	170
Butyl benzyl phthalate	na	na	na	35	25	15 U	na	72	64	15 U
Diethyl phthalate	na	na	na	30 U	36 U	15 U	na	78 U	23 U	20 U
Dimethyl phthalate	na	na	na	15 U	15 U	15 U	na	15 U	180	15 U
Di-n-butyl phthalate	na	na	na	30 U	36 U	20 U	na	41 J	23 U	12 J
Di-n-octyl phthalate	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
Other SVOCs										

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201 0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
1,2,4-Trichlorobenzene	na	na	na	6.1 U	6.1 U	6.1 U	na	6.2 U	6.1 U	6.1 U
1,2-Dichlorobenzene	na	na	na	6.1 U	6.1 U	6.1 U	na	6.2 U	6.1 U	6.1 U
1,3-Dichlorobenzene	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
1,4-Dichlorobenzene	na	na	na	27	29 J	6.1 U	na	190	250	7.9
2,4,5-Trichlorophenol	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
2,4,6-Trichlorophenol	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
2,4-Dichlorophenol	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
2,4-Dimethylphenol	na	na	na	9.7	6.1 U	6.1 U	na	6.2 UJ	6.1 J	6.1 UJ
2,4-Dinitrophenol	na	na	na	300 U	360 U	200 U	na	780 U	230 U	200 U
2,4-Dinitrotoluene	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
2,6-Dinitrotoluene	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
2-Chlorophenol	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
2-Methylphenol	na	na	na	6.1 U	6.1 U	6.1 U	na	6.2 U	6.1 U	6.1 U
2-Nitroaniline	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
2-Nitrophenol	na	na	na	150 U	180 U	20 U	na	390 U	120 U	98 U
3,3'-Dichlorobenzidine	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
3-Nitroaniline	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
4,6-Dinitro-o-cresol	na	na	na	300 U	360 U	200 U	na	780 U	230 U	200 U
4-Bromophenyl phenyl ether	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
4-Chloro-3-methylphenol	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
4-Chloroaniline	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
4-Chlorophenyl phenyl ether	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
4-Methylphenol	na	na	na	30 U	36 U	20 U	na	78 U	45	20 U
4-Nitroaniline	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
4-Nitrophenol	na	na	na	150 U	180 U	98 U	na	390 U	120 U	98 U
Aniline	na	na	na	30 UJ	36 U	20 U	na	78 U	23 U	20 U

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201 0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
Benzoic acid	na	na	na	300 U	360 U	200 U	na	780 U	230 U	200 U
Benzyl alcohol	na	na	na	30 UJ	36 U	20 U	na	31 UJ	23 UJ	20 U
bis(2-chloroethoxy)methane	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
bis(2-chloroethyl)ether	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
bis(2-chloroisopropyl)ether	na	na	na	30 UJ	36 UJ	20 U	na	78 U	23 U	20 U
Carbazole	na	na	na	50	36 U	20 U	na	100	25	20 U
Hexachlorobenzene	na	na	na	6.1 U	6.1 U	6.1 U	na	6.2 U	6.1 U	0.98 U
Hexachlorobutadiene	na	na	na	6.1 U	6.1 U	6.1 U	na	6.2 U	6.1 U	0.98 U
Hexachlorocyclopentadiene	na	na	na	R	180 U	98 U	na	390 U	120 U	98 U
Hexachloroethane	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
Isophorone	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
n-Nitroso-di-n-propylamine	na	na	na	30 U	30 U	31 U	na	31 U	30 U	30 U
n-Nitrosodimethylamine	na	na	na	30 U	30 U	31 U	na	31 U	30 U	30 U
n-Nitrosodiphenylamine	na	na	na	6.1 U	6.1 U	6.1 U	na	6.2 U	7.9 U	6.1 U
Nitrobenzene	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
Pentachlorophenol	na	na	na	30 U	30 U	31 U	na	31 U	30 U	30 U
Phenol	na	na	na	30 U	36 U	20 U	na	78 U	23 U	20 U
PCBs										
Aroclor-1016	49 U	na	20 U	330 U	79 U	19 U	3.9 U	67 U	65 U	3.9 U
Aroclor-1221	49 U	na	20 U	330 U	79 U	19 U	3.9 U	67 U	65 U	3.9 U
Aroclor-1232	49 U	na	20 U	330 U	79 U	19 U	3.9 U	67 U	65 U	3.9 U
Aroclor-1242	49 U	na	20 U	330 U	450	19 U	3.9 U	67 U	65 U	3.9 U
Aroclor-1248	170 U	na	20 U	330 U	79 U	70	3.9 U	440	530	48
Aroclor-1254	1,200 U	na	20 U	780	780	74	3.9 U	800	800	61
Aroclor-1260	950	na	20 U	920	610	60	3.9 U	760	800	43
Aroclor-1262	49 U	na	20 U	330 U	79 U	19 U	3.9 U	67 U	65 U	3.9 U

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201-0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
Aroclor-1268	49 U	na	20 U	330 U	79 U	19 U	3.9 U	67 U	65 U	3.9 U
Total PCBs	950	na	20 U	1,700	1,840	204	3.9 U	2,000	2,130	152
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	22 U	na	2.0 U
2,4'-DDE	na	na	na	na	na	na	na	22 U	na	2.0 U
2,4'-DDT	na	na	na	na	na	na	na	22 U	na	2.0 U
4,4'-DDD	na	na	na	na	na	na	na	22 U	na	5.4
4,4'-DDE	na	na	na	na	na	na	na	22 U	na	2.0 U
4,4'-DDT	na	na	na	na	na	na	na	85 U	na	2.0 U
Total DDTs	na	na	na	na	na	na	na	85 U	na	5.4
Aldrin	na	na	na	na	na	na	na	11 U	na	0.98 U
Dieldrin	na	na	na	na	na	na	na	22 U	na	2.0 U
Total aldrin/dieldrin	na	na	na	na	na	na	na	22 U	na	2.0 U
alpha-BHC	na	na	na	na	na	na	na	11 U	na	0.98 U
beta-BHC	na	na	na	na	na	na	na	11 U	na	0.98 U
gamma-BHC	na	na	na	na	na	na	na	11 U	na	0.98 U
delta-BHC	na	na	na	na	na	na	na	11 U	na	0.98 U
alpha-Chlordane	na	na	na	na	na	na	na	11 U	na	0.98 U
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	11 U	na	0.98 U
Total chlordane	na	na	na	na	na	na	na	22 U	na	2.0 U
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	11 U	na	0.98 U
beta-Endosulfan	na	na	na	na	na	na	na	22 U	na	2.0 U
Endosulfan sulfate	na	na	na	na	na	na	na	22 U	na	2.0 U
Endrin	na	na	na	na	na	na	na	22 U	na	2.0 U

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201 0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
Endrin aldehyde	na	na	na	na	na	na	na	22 U	na	2.0 U
Endrin ketone	na	na	na	na	na	na	na	22 U	na	2.0 U
Heptachlor	na	na	na	na	na	na	na	11 U	na	0.98 U
Heptachlor epoxide	na	na	na	na	na	na	na	11 U	na	0.98 U
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	110 U	na	9.8 U
Mirex	na	na	na	na	na	na	na	22 U	na	2.0 U
cis-Nonachlor	na	na	na	na	na	na	na	22 U	na	2.0 U
trans-Nonachlor	na	na	na	na	na	na	na	22 U	na	2.0 U
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	22 U	na	2.0 U
Toxaphene	na	na	na	na	na	na	na	1,100 U	na	98 U
Grain size										
Fractional % phi >-1 (>2000 microns)	na	na	na	0.1 U	0.1	na	na	0.3	1.7	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	na	na	na	0.3	0.3	na	na	1.5	2.2	0.1
Fractional % phi 0-1 (500-1000 microns)	na	na	na	0.8	1.1	na	na	2.6	2.7	0.4
Fractional % phi 1-2 (250-500 microns)	na	na	na	4.4	8.7	na	na	10.5	9.0	12.6
Fractional % phi 2-3 (125-250 microns)	na	na	na	11.3	16.6	na	na	17.9	17.8	38.7
Fractional % phi 3-4 (62.5-125 microns)	na	na	na	12.3	10	na	na	10.4	12.8	20.4
Fractional % phi 4-5 (31.2-62.5 microns)	na	na	na	14.7	7.3	na	na	8.8	8.6	10.6
Fractional % phi 5-6 (15.6-31.2 microns)	na	na	na	12.1	7.7	na	na	8.3	8.9	7.5
Fractional % phi 6-7 (7.8-15.6 microns)	na	na	na	12.8	10.5	na	na	11.4	9.5	3.8
Fractional % phi 7-8 (3.9-7.8 microns)	na	na	na	9.2	9.9	na	na	8.7	8.1	1.5
Fractional % phi 8-9 (1.95-3.9 microns)	na	na	na	7.4	8.5	na	na	6.2	6.3	1.4
Fractional % phi 9-10 (0.98-1.95 microns)	na	na	na	4.7	6.2	na	na	4.9	4.5	1.0
Fractional % phi 10+ (<0.98 micron)	na	na	na	10.0	13.0	na	na	8.6	7.8	2.0

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC17			EW10-SC18				EW10		
	EW10-SC17-6-8	EW10-SC17-8-10	EW10-SC17-11.5-13	EW10-SC18-0-2	EW10-SC18-2-4	EW10-SC18-4-6	EW10-SC18-6-8	EW10-SC19-0-2.5	EW10-SC201 0-2.5	EW10-SC19-2.5-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	6-8 ft	8-10 ft	11.5-13 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2.5 ft	0-2.5 ft	2.5-4 ft
Total gravel	na	na	na	0.1 U	0.1	na	na	0.3	1.7	0.1 U
Total sand	na	na	na	29.1	37	na	na	42.9	44.5	72.2
Total silt	na	na	na	48.8	35.4	na	na	37.2	35.1	23.4
Total clay	na	na	na	22.1	27.7	na	na	19.7	18.6	4.4
Total fines (percent silt+clay)	na	na	na	70.9	63.1	na	na	56.9	53.7	27.8
Conventionals										
Total organic carbon (TOC)	4.12	1.87	1.56	2.04	2.07	0.833	0.696	2.16	2.31	0.474
Total solids	50.73	62.40	69.50	59.90	62.40	71.70	73.00	61.00	61.70	76.50

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
Metals										
Antimony	6 UJ	na	na	6 UJ	7 UJ	9 UJ	8 UJ	na	na	7 UJ
Arsenic	2.4	na	na	4.5	4.2	11.2	14.1	na	na	3.2
Cadmium	0.2 U	na	na	0.3	0.3 U	1.8	2.9	na	na	0.3 U
Chromium	11.9	na	na	24.5	15.8	46.1	55.2	na	na	16.9
Cobalt	4.1	na	na	7.0	5.5	9.1	9.5	na	na	5.5
Copper	14.0	na	na	27.7	24.4	104	140	na	na	20.7
Lead	6	na	na	8	3 U	89	238	na	na	5
Mercury	0.03	na	na	0.12	0.03	0.45	0.73	0.03 U	0.03 U	0.05 J
Molybdenum	0.7	na	na	0.9	0.8	4.3	4.6	na	na	0.8
Nickel	8	na	na	23	12	29	39	na	na	11
Selenium	0.6 U	na	na	0.7 U	0.7 U	0.9 U	0.8 U	na	na	0.6 U
Silver	0.4 U	na	na	0.4 U	0.4 U	1.5	3.1	na	na	0.4 U
Thallium	0.2 U	na	na	0.3 U	0.3 U	0.4 U	0.3 U	na	na	0.3 U
Vanadium	41.1	na	na	53.7	50.8	68.0	66.0	na	na	46.6
Zinc	27	na	na	40	31	186	303	na	na	35
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	na	na
Dibutyltin as ion	na	na	na	na	na	na	na	na	na	na
Tributyltin as ion	na	na	na	na	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	20 U	19 UJ	19 UJ	10 J	19 U	35	51 J	20 UJ	na	19 U
2-Chloronaphthalene	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
2-Methylnaphthalene	20 U	19 U	19 U	20	19 U	40	74 J	20 U	na	19 U
Acenaphthene	20 U	19 U	19 U	21	19 U	200	75 J	11 J	na	19 U
Acenaphthylene	20 U	19 U	19 U	21	19 U	32	86 U	20 U	na	19 U

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
Anthracene	8.7 J	19 U	19 U	75	19 U	160	230	20 U	na	9.7 J
Benzo(a)anthracene	24	19 U	19 U	110	19 U	290	640	20 U	na	24
Benzo(a)pyrene	29	19 U	19 U	110	19 U	460	600	20 U	na	27
Benzo(g,h,i)perylene	20 U	19 U	19 U	37	19 U	110	160	20 U	na	22
Total benzofluoranthenes	58	19 U	19 U	120	19 U	1,000	1,200	20 U	na	54
Chrysene	32	19 U	19 U	120	19 U	550	780	20 U	na	36
Dibenzo(a,h)anthracene	5.8 UJ	19 U	19 U	14 J	6.1 U	34 J	64 J	20 U	na	7.8 J
Dibenzofuran	20 U	19 U	19 U	11 J	19 U	80	59 J	20 U	na	19 U
Fluoranthene	25	19 U	19 U	220	19 U	590	1,700	20 U	na	42
Fluorene	20 U	19 U	19 U	47	19 U	230	96	20 U	na	19 U
Indeno(1,2,3-cd)pyrene	9.9 J	19 U	19 U	36	19 U	110	150	20 U	na	20
Naphthalene	20 U	19 U	19 U	23	19 U	95	150	22	na	19 U
Phenanthrene	18 J	19 U	19 U	300	19 U	390	430	20 U	na	29
Pyrene	70	19 U	19 U	300	19 U	970	1,800	20 U	na	60
Total HPAHs	248 J	19 U	19 U	1,070 J	19 U	4,100 J	7,100 J	20 U	na	293 J
Total LPAHs	27 J	19 U	19 U	490	19 U	1,110	980 J	33 J	na	39 J
cPAHs - mammal - half DL	40 J	16 U	16 U	140 J	14 U	620 J	830 J	17 U	na	40 J
Total PAHs	275 J	19 U	19 U	1,550 J	19 U	5,200 J	8,100 J	33 J	na	332 J
Phthalates										
Bis(2-ethylhexyl)phthalate	280	16 J	19 J	23	24	1,200	3,700	20	na	57 U
Butyl benzyl phthalate	24	15 U	15 U	15 U	15 U	60	93	15 U	na	15 U
Diethyl phthalate	20 U	15 U	15 U	19 U	19 U	28 U	86 U	15 U	na	19 U
Dimethyl phthalate	14 U	15 U	15 U	15 U	15 U	15 U	40	15 U	na	15 U
Di-n-butyl phthalate	26	19 U	19 U	19 U	23	60	88	20 U	na	19 U
Di-n-octyl phthalate	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
Other SVOCs										

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
1,2,4-Trichlorobenzene	5.8 U	5.9 U	5.8 U	6.1 U	6.1 U	6.1 U	6.2 U	6.0 U	na	6.0 U
1,2-Dichlorobenzene	5.8 U	5.9 U	5.8 U	6.1 U	6.1 U	6.1 U	6.2 U	6.0 U	na	6.0 U
1,3-Dichlorobenzene	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
1,4-Dichlorobenzene	33	5.9 U	5.8 U	6.1 U	6.1 U	310	250	6.0 U	na	7.8
2,4,5-Trichlorophenol	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
2,4,6-Trichlorophenol	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
2,4-Dichlorophenol	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
2,4-Dimethylphenol	5.8 UJ	5.9 U	5.8 U	6.1 UJ	6.1 UJ	6.1 UJ	6.2 UJ	6.0 U	na	6.0 U
2,4-Dinitrophenol	200 U	190 U	190 U	190 U	190 U	280 U	860 U	200 U	na	190 U
2,4-Dinitrotoluene	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
2,6-Dinitrotoluene	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
2-Chlorophenol	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
2-Methylphenol	5.8 U	5.9 U	5.8 U	6.1 U	6.1 U	6.1 U	6.2 U	6.0 U	na	6.0 U
2-Nitroaniline	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
2-Nitrophenol	99 U	19 U	19 U	96 U	97 U	140 U	430 U	20 U	na	97 U
3,3'-Dichlorobenzidine	99 U	97 U	97 U	R	97 U	140 U	430 U	98 U	na	97 U
3-Nitroaniline	99 U	97 U	97 U	96 UJ	97 U	140 U	430 U	98 U	na	97 U
4,6-Dinitro-o-cresol	200 U	190 U	190 U	190 U	190 U	280 U	860 U	200 U	na	190 U
4-Bromophenyl phenyl ether	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
4-Chloro-3-methylphenol	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
4-Chloroaniline	99 U	97 U	97 U	R	97 U	140 U	430 U	98 U	na	97 U
4-Chlorophenyl phenyl ether	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
4-Methylphenol	20 U	19 U	19 U	21	19 U	28	86 U	20 U	na	19 U
4-Nitroaniline	99 U	97 U	97 U	96 UJ	97 U	140 U	430 U	98 U	na	97 U
4-Nitrophenol	99 U	97 U	97 U	96 U	97 U	140 U	430 U	98 U	na	97 U
Aniline	20 U	19 U	19 U	R	19 U	28 U	86 U	20 U	na	19 U

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
Benzoic acid	200 U	190 U	190 U	190 U	190 U	280 U	860 U	200 U	na	190 U
Benzyl alcohol	20 UJ	19 U	19 U	19 U	19 U	28 U	31 UJ	20 U	na	19 U
bis(2-chloroethoxy)methane	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
bis(2-chloroethyl)ether	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
bis(2-chloroisopropyl)ether	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
Carbazole	20 U	19 U	19 U	19 U	19 U	51	52 J	20 U	na	19 U
Hexachlorobenzene	5.8 U	5.9 U	5.8 U	6.1 U	6.1 U	6.1 U	6.2 U	6.0 U	na	6.0 U
Hexachlorobutadiene	5.8 U	5.9 U	5.8 U	6.1 U	6.1 U	6.1 U	6.2 U	6.0 U	na	6.0 U
Hexachlorocyclopentadiene	99 U	97 U	97 U	R	97 U	140 U	430 U	98 U	na	97 U
Hexachloroethane	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
Isophorone	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
n-Nitroso-di-n-propylamine	29 U	30 U	29 U	30 U	30 U	30 U	31 U	30 U	na	30 U
n-Nitrosodimethylamine	29 U	30 U	29 U	30 U	30 U	30 U	31 U	30 U	na	30 U
n-Nitrosodiphenylamine	5.8 U	5.9 U	5.8 U	6.1 U	6.1 U	12 U	32 U	6.0 U	na	6.0 U
Nitrobenzene	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
Pentachlorophenol	29 U	30 U	29 U	30 U	30 U	30 U	31 U	30 U	na	30 UJ
Phenol	20 U	19 U	19 U	19 U	19 U	28 U	86 U	20 U	na	19 U
PCBs										
Aroclor-1016	40 U	3.8 U	3.9 U	3.8 U	3.9 U	71 U	110 U	3.9 U	na	4.0 U
Aroclor-1221	40 U	3.8 U	3.9 U	3.8 U	3.9 U	71 U	110 U	3.9 U	na	4.0 U
Aroclor-1232	40 U	3.8 U	3.9 U	3.8 U	3.9 U	71 U	110 U	3.9 U	na	4.0 U
Aroclor-1242	40 U	3.8 U	3.9 U	3.8 U	3.9 U	71 U	110 U	3.9 U	na	4.0 U
Aroclor-1248	120	3.8 U	3.9 U	3.8 U	3.9 U	330	690	3.9 U	na	16
Aroclor-1254	220	3.8 U	3.9 U	3.8 U	3.9 U	640	1,100	3.9 U	na	46
Aroclor-1260	170	3.8 U	3.9 U	3.8 U	3.9 U	730	900	3.9 U	na	71
Aroclor-1262	40 U	3.8 U	3.9 U	3.8 U	3.9 U	71 U	110 U	3.9 U	na	4.0 U

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
Aroclor-1268	40 U	3.8 U	3.9 U	3.8 U	3.9 U	71 U	110 U	3.9 U	na	4.0 U
Total PCBs	510	3.8 U	3.9 U	3.8 U	3.9 U	1,700	2,700	3.9 U	na	133
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1	na	na	0.1 U	0.1 U	0.9	0.3	na	na	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	0.2	na	na	0.1	0.1 U	1.2	0.6	na	na	0.4
Fractional % phi 0-1 (500-1000 microns)	0.5	na	na	0.5	0.1	1.9	1.1	na	na	1.5
Fractional % phi 1-2 (250-500 microns)	12.4	na	na	4.8	0.2	3.5	5.1	na	na	7.3
Fractional % phi 2-3 (125-250 microns)	37.5	na	na	15.3	3.9	8.1	13.0	na	na	25.4
Fractional % phi 3-4 (62.5-125 microns)	20.6	na	na	18.5	16.6	8.8	7.7	na	na	23.1
Fractional % phi 4-5 (31.2-62.5 microns)	13.5	na	na	14.8	21.6	7.3	6.9	na	na	16.3
Fractional % phi 5-6 (15.6-31.2 microns)	5.9	na	na	12.6	20.2	14.3	13.5	na	na	8.8
Fractional % phi 6-7 (7.8-15.6 microns)	3.0	na	na	8.9	12.4	15.8	14.3	na	na	3.7
Fractional % phi 7-8 (3.9-7.8 microns)	2.0	na	na	7.2	7.9	11.7	12.2	na	na	4.5
Fractional % phi 8-9 (1.95-3.9 microns)	1.9	na	na	5.7	5.5	8.9	8.8	na	na	2.5
Fractional % phi 9-10 (0.98-1.95 microns)	0.3	na	na	4.1	4.1	6.3	5.2	na	na	1.6
Fractional % phi 10+ (<0.98 micron)	1.9	na	na	7.6	7.4	11.2	11.2	na	na	5.1

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC19			EW10-SC20		EW10-SC21				EW10
	EW10-SC201-2.5-4	EW10-SC19-4-6	EW10-SC201-4-6	EW10-SC20-0.4-2.4	EW10-SC20-2.4-4.4	EW10-SC21-0-2	EW10-SC21-2-4	EW10-SC21-5.3-7.8	EW10-SC21-7.8-10	EW10-SC22-0-1.9
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	N	N	N	N	N	N
	2.5-4 ft	4-6 ft	4-6 ft	0.4-2.4 ft	2.4-4.4 ft	0-2 ft	2-4 ft	5.3-7.8 ft	7.8-10 ft	0-1.9 ft
Total gravel	0.1	na	na	0.1 U	0.1 U	0.9	0.3	na	na	0.1 U
Total sand	71.2	na	na	39.2	20.8	23.5	27.5	na	na	57.7
Total silt	24.4	na	na	43.5	62.1	49.1	46.9	na	na	33.3
Total clay	4.1	na	na	17.4	17.0	26.4	25.2	na	na	9.2
Total fines (percent silt+clay)	28.5	na	na	60.9	79.1	75.5	72.1	na	na	42.5
Conventionals										
Total organic carbon (TOC)	0.524	0.270	0.213	0.701	0.431	2.05	2.37	0.573	0.491	0.497
Total solids	76.70	74.57	74.00	74.97	73.30	54.20	57.70	76.40	79.50	75.60

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
Metals										
Antimony	6 UJ	7 UJ	9 UJ	na	7 UJ	na	9 UJ	9 UJ	na	na
Arsenic	2.1	6.9	18.4	na	4.6	na	11.4	15.6	na	na
Cadmium	0.3 U	1.7	18.4	na	0.5	na	1.8	3.4	na	na
Chromium	11.0	23.3	131	na	28.5	na	43.6	58.4	na	na
Cobalt	4.1	5.0	9.9	na	8.1	na	9.3	11.0	na	na
Copper	10.3	54.2	271	na	28.6	na	97.7	139	na	na
Lead	3 U	63	455	na	12	na	86	232	na	na
Mercury	0.02 UJ	0.16	1.64	0.76	0.18	0.03 U	0.49 J	0.67 J	0.26	0.03
Molybdenum	0.6 U	2.3	15.3	na	1.2	na	2.3	3.8	na	na
Nickel	7	15	52	na	25	na	27	33	na	na
Selenium	0.6 U	0.7 U	1.3	na	0.7 U	na	0.8 U	0.8 U	na	na
Silver	0.4 U	0.4 U	6.5	na	0.4 U	na	1.3	3.7	na	na
Thallium	0.3 U	0.3 U	0.5	na	0.3 U	na	0.3 U	0.3 U	na	na
Vanadium	38.7	42.6	81.8	na	50.6	na	65.4	71.9	na	na
Zinc	21	247	2,280	na	48	na	189	357	na	na
Organometals										
Monobutyltin as ion	na	3.7 U	3.8 U	na	na	na	na	na	na	na
Dibutyltin as ion	na	8.2	5.3 U	na	na	na	na	na	na	na
Tributyltin as ion	na	42 J	29	na	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	20 U	18 J	140 J	na	19 UJ	4.8 U	17 J	20	76 UJ	20 U
2-Chloronaphthalene	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
2-Methylnaphthalene	20 U	24	230	na	19 U	5.3 J	28	30	76 U	20 U
Acenaphthene	20 U	32	800	na	88	8.7	26	35	270	20 U
Acenaphthylene	20 U	46	260	na	11 J	4.8 U	29	24	76 U	20 U

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
Anthracene	20 U	200	2,900	na	350	25	130	120	260	20 U
Benzo(a)anthracene	20 U	280	4,000	na	450	29 J	240	300	320	20 U
Benzo(a)pyrene	20 U	460	3,000	na	130	16	450	440	180	20 U
Benzo(g,h,i)perylene	20 U	170	690	na	42	6.8	94	100	77	20 U
Total benzofluoranthenes	20 U	920	8,400	na	300	26	740	880	300	20 U
Chrysene	20 U	550	4,700	na	520	24	520	600	390	20 U
Dibenzo(a,h)anthracene	5.8 U	94	760	na	17 J	4.8 U	69 J	130 J	76 U	6.0 U
Dibenzofuran	20 U	29	530	na	43	7.8	24	25	130	20 U
Fluoranthene	20 U	600	10,000	na	2,200	110	400	620	1,800	20 U
Fluorene	20 U	42	1,100	na	51	9.7	36	38	240	20 U
Indeno(1,2,3-cd)pyrene	20 U	180	720	na	44	5.8	98	100	70 J	20 U
Naphthalene	20 U	29	350	na	28	15	35	43	39 J	20 U
Phenanthrene	20 U	250	1,500	na	170	21	260	240	420	20 U
Pyrene	20 U	810	18,000	na	1,500	100	550	990	1,200	20 U
Total HPAHs	20 U	4,060	50,000	na	5,200 J	320 J	3,160 J	4,160 J	4,300 J	20 U
Total LPAHs	20 U	600	6,900	na	700 J	79	520	500	1,230 J	20 U
cPAHs - mammal - half DL	14 U	640	4,700	na	220 J	23 J	590 J	630 J	270 J	14 U
Total PAHs	20 U	4,660	57,000	na	5,900 J	400 J	3,680 J	4,660 J	5,600 J	20 U
Phthalates										
Bis(2-ethylhexyl)phthalate	26 U	430	5,800	na	16 J	na	600	1,600	600	15 J
Butyl benzyl phthalate	14 U	14	340	na	15 U	na	30	86	15 U	15 U
Diethyl phthalate	20 U	20 U	150 U	na	15 U	na	19 U	20 U	15 U	20 U
Dimethyl phthalate	14 U	14 U	150 U	na	15 U	na	16 U	15	15 U	15 U
Di-n-butyl phthalate	20 U	20 U	150 U	na	19 U	na	19 U	20 U	180	20 U
Di-n-octyl phthalate	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
Other SVOCs										

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
1,2,4-Trichlorobenzene	5.8 U	5.8 U	60 U	na	5.9 U	na	6.2 U	9.3	6.2 U	6.0 U
1,2-Dichlorobenzene	5.8 U	5.8 U	60 U	na	5.9 U	na	6.2 U	6.2 U	6.2 U	6.0 U
1,3-Dichlorobenzene	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
1,4-Dichlorobenzene	5.8 U	5.8	60 U	na	5.9 U	na	100	160	17	6.0 U
2,4,5-Trichlorophenol	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
2,4,6-Trichlorophenol	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
2,4-Dichlorophenol	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
2,4-Dimethylphenol	5.8 U	5.8 U	60 U	na	5.9 U	na	6.2 U	6.2 U	6.2 U	6.0 U
2,4-Dinitrophenol	200 U	200 U	1,500 U	na	190 U	na	190 U	200 U	760 U	200 U
2,4-Dinitrotoluene	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
2,6-Dinitrotoluene	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
2-Chlorophenol	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
2-Methylphenol	5.8 U	5.8 U	60 U	na	5.9 U	na	6.2 U	6.2 U	6.2 U	6.0 U
2-Nitroaniline	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
2-Nitrophenol	97 U	100 UJ	750 UJ	na	19 U	na	96 U	98 U	76 U	20 U
3,3'-Dichlorobenzidine	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
3-Nitroaniline	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
4,6-Dinitro-o-cresol	200 U	200 U	1,500 U	na	190 U	na	190 U	200 U	760 U	200 U
4-Bromophenyl phenyl ether	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
4-Chloro-3-methylphenol	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
4-Chloroaniline	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
4-Chlorophenyl phenyl ether	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
4-Methylphenol	20 U	20 U	150 U	na	19 U	na	19 U	13 J	76 U	20 U
4-Nitroaniline	97 U	100 U	750 U	na	97 U	na	96 U	98 U	140 J	99 U
4-Nitrophenol	97 U	100 U	750 U	na	97 U	na	96 U	98 U	380 U	99 U
Aniline	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
Benzoic acid	200 U	200 U	1,500 U	na	190 U	na	190 U	200 U	760 U	200 U
Benzyl alcohol	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
bis(2-chloroethoxy)methane	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
bis(2-chloroethyl)ether	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
bis(2-chloroisopropyl)ether	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
Carbazole	20 U	66	310	na	32	na	44	20 U	76 U	20 U
Hexachlorobenzene	5.8 U	5.8 U	60 U	na	5.9 U	na	6.2 U	6.2 U	6.2 U	6.0 U
Hexachlorobutadiene	5.8 U	5.8 U	60 U	na	5.9 U	na	6.2 U	6.2 U	6.2 U	6.0 U
Hexachlorocyclopentadiene	97 U	100 UJ	750 UJ	na	97 U	na	96 U	98 U	380 U	99 U
Hexachloroethane	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
Isophorone	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
n-Nitroso-di-n-propylamine	29 U	29 U	350	na	29 U	na	31 U	31 U	59 J	30 U
n-Nitrosodimethylamine	29 U	29 U	300 U	na	29 U	na	31 U	31 U	31 U	30 U
n-Nitrosodiphenylamine	5.8 U	7.6 U	60 U	na	5.9 U	na	11 U	15 U	6.2 U	6.0 U
Nitrobenzene	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	20 U
Pentachlorophenol	29 UJ	29 U	300 UJ	na	29 U	na	31 UJ	31 UJ	31 U	30 U
Phenol	20 U	20 U	150 U	na	19 U	na	19 U	20 U	76 U	29
PCBs										
Aroclor-1016	3.9 U	39 U	600 U	na	3.9 U	na	36 U	37 U	19 U	20 U
Aroclor-1221	3.9 U	39 U	600 U	na	3.9 U	na	36 U	37 U	19 U	20 U
Aroclor-1232	3.9 U	39 U	600 U	na	3.9 U	na	36 U	37 U	19 U	20 U
Aroclor-1242	3.9 U	39 U	600 U	na	3.9 U	na	36 U	37 U	19 U	20 U
Aroclor-1248	3.9 U	110	3,200	na	3.9 U	na	280	300	220	20 U
Aroclor-1254	3.9 U	300	6,500	na	3.9 U	na	520	510	310	20 U
Aroclor-1260	3.9 U	390	7,900	na	3.9 U	na	570	660	170	20 U
Aroclor-1262	3.9 U	39 U	600 U	na	3.9 U	na	36 U	37 U	19 U	20 U

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
Aroclor-1268	3.9 U	39 U	600 U	na	3.9 U	na	36 U	37 U	19 U	20 U
Total PCBs	3.9 U	800	17,600	na	3.9 U	na	1,370	1,470	700	20 U
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1	1.6	2.6	na	na	na	0.7	0.1 U	na	na
Fractional % phi -1-0 (1000-2000 microns)	0.3	1.7	2.5	na	na	na	1.5	0.7	na	na
Fractional % phi 0-1 (500-1000 microns)	0.9	9.8	3.6	na	na	na	2.6	1.7	na	na
Fractional % phi 1-2 (250-500 microns)	26.7	45.8	14.5	na	na	na	4.8	5.7	na	na
Fractional % phi 2-3 (125-250 microns)	54.3	17.6	10.4	na	na	na	10.4	8.7	na	na
Fractional % phi 3-4 (62.5-125 microns)	11.2	3.7	3.7	na	na	na	11.0	8.4	na	na
Fractional % phi 4-5 (31.2-62.5 microns)	1.1	2.9	2.9	na	na	na	9.3	4.7	na	na
Fractional % phi 5-6 (15.6-31.2 microns)	1.1	2.8	8.0	na	na	na	13.0	9.9	na	na
Fractional % phi 6-7 (7.8-15.6 microns)	1.3	3.2	8.7	na	na	na	18.6	18.7	na	na
Fractional % phi 7-8 (3.9-7.8 microns)	0.6	2.8	10.4	na	na	na	8.4	12.9	na	na
Fractional % phi 8-9 (1.95-3.9 microns)	0.4	2.3	10.3	na	na	na	4.4	7.2	na	na
Fractional % phi 9-10 (0.98-1.95 microns)	0.3	1.8	7.5	na	na	na	4.1	6.6	na	na
Fractional % phi 10+ (<0.98 micron)	1.6	4.1	14.8	na	na	na	11.2	14.7	na	na

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC22	EW10-SC23					EW10-SC24			
	EW10-SC22-1.9-4	EW10-SC23-0-1.3	EW10-SC23-1.3-3.2	EW10-SC23-7-9	EW10-SC23-9-11	EW10-SC23-11-12.9	EW10-SC24-0-2	EW10-SC24-2-4.7	EW10-SC24-6-8	EW10-SC24-8-10
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	1.9-4 ft	0-1.3 ft	1.3-3.2 ft	7-9 ft	9-11 ft	11-12.9 ft	0-2 ft	2-4.7 ft	6-8 ft	8-10 ft
Total gravel	0.1	1.6	2.6	na	na	na	0.7	0.1 U	na	na
Total sand	93.4	78.6	34.7	na	na	na	30.3	25.2	na	na
Total silt	4.1	11.7	30.0	na	na	na	49.3	46.2	na	na
Total clay	2.3	8.2	32.6	na	na	na	19.7	28.5	na	na
Total fines (percent silt+clay)	6.4	19.9	62.6	na	na	na	69.0	74.7	na	na
Conventionals										
Total organic carbon (TOC)	0.605	2.40	5.55	1.96	1.27	0.859	1.84	1.62	0.826	0.352
Total solids	75.70	73.70	52.20	63.10	69.00	77.00	54.70	55.60	74.70	74.60

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
Metals										
Antimony	6 UJ	7 UJ	6 UJ	6 UJ	10 UJ	9 UJ	9 UJ	na	na	8 UJ
Arsenic	2.5	2.8	2.3	2.7	19.0	31.9	8.4	na	na	10.6
Cadmium	0.3 U	0.3 U	0.3	0.2 U	11.3	9.8	2.4	na	na	1.2
Chromium	14.0	13.9	13.8	13.4	118	97.4	48.9	na	na	44.0
Cobalt	4.9	5.1	4.4	4.9	10.6	11.2	12.6	na	na	12.2
Copper	17.4	20.8	22.4	19.2	218	210	79.4	na	na	63.9
Lead	7	3 U	15	2 U	337	525	85	na	na	59
Mercury	0.03 J	0.03 UJ	0.03	0.03	1.16	1.81	1.18	0.03	0.03 U	0.59 J
Molybdenum	0.6 U	0.7 U	0.6 U	0.6 U	8	9.1	5.2	na	na	1.8
Nickel	10	9	11	10	45	46	47	na	na	37
Selenium	0.6 U	0.7 U	0.6 U	0.6 U	1 U	1	0.9 U	na	na	0.8
Silver	0.4 U	0.4 U	0.4 U	0.4 U	5.1	5.1	0.6	na	na	0.9
Thallium	0.2 U	0.3 U	0.2 U	0.3 U	0.4	0.5	0.4 U	na	na	0.3 U
Vanadium	44.3	46.3	42.8	47.6	79.2	84.8	74.2	na	na	74.6
Zinc	32	26	44	27	998	1,180	183	na	na	130
Organometals										
Monobutyltin as ion	na	na	3.4 U	3.6 U	na	na	na	na	na	na
Dibutyltin as ion	na	na	4.9 U	5.1 U	na	na	na	na	na	na
Tributyltin as ion	na	na	39 J	3.4 U	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	20 U	19 U	13 J	20 U	40	1,900	91 UJ	na	na	20 U
2-Chloronaphthalene	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
2-Methylnaphthalene	20 U	19 U	16 J	20 U	54	340	91 U	na	na	20 U
Acenaphthene	20 U	19 U	18 J	20 U	140	6,100	56 J	na	na	20 U
Acenaphthylene	20 U	19 U	19 U	20 U	87	120 U	91 U	na	na	20 U

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
Anthracene	20 U	19 U	22	20 U	480	4,200	290	na	na	18 J
Benzo(a)anthracene	20 U	19 U	40	20 U	850	2,000	500	na	na	44
Benzo(a)pyrene	20 U	19 U	120	20 U	1,100	1,300	360	na	na	38
Benzo(g,h,i)perylene	20 U	19 U	42	20 U	280	300	180	na	na	11 J
Total benzofluoranthenes	20 U	19 U	220	20 U	2,000	2,800	640	na	na	70
Chrysene	20 U	19 U	79	20 U	1,400	3,000	660	na	na	67
Dibenzo(a,h)anthracene	6.1 U	6.1 U	21	5.9 U	140	160	55 J	na	na	17 J
Dibenzofuran	20 U	19 U	9.8 J	20 U	78	3,500	52 J	na	na	20 U
Fluoranthene	12 J	19 U	62	20 U	2,400	12,000	1,600	na	na	110
Fluorene	20 U	19 U	12 J	20 U	220	5,500	75 J	na	na	14 J
Indeno(1,2,3-cd)pyrene	20 U	19 U	42	20 U	280	310	160	na	na	11 J
Naphthalene	20 U	19 U	38	20 U	69	1,800	65 J	na	na	20 U
Phenanthrene	20 U	19 U	32	20 U	440	12,000	300	na	na	58
Pyrene	20 U	19 U	270	20 U	2,800	8,300	1,600	na	na	100
Total HPAHs	12 J	19 U	900	20 U	11,300	30,000	5,800 J	na	na	470 J
Total LPAHs	20 U	19 U	122 J	20 U	1,440	30,000	790 J	na	na	90 J
cPAHs - mammal - half DL	14 U	14 U	160	14 U	1,500	1,900	520 J	na	na	58 J
Total PAHs	12 J	19 U	1,020 J	20 U	12,700	60,000	6,500 J	na	na	560 J
Phthalates										
Bis(2-ethylhexyl)phthalate	79 U	28 U	82 U	37 U	4,700	2,200	91 U	na	na	20 U
Butyl benzyl phthalate	15 U	15 U	15 U	15 U	110	100	32 J	na	na	20
Diethyl phthalate	20 U	19 U	19 U	20 U	40 U	120 U	15 U	na	na	20 U
Dimethyl phthalate	15 U	15 U	15 U	15 U	40 U	46 U	15 U	na	na	15 U
Di-n-butyl phthalate	26	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
Di-n-octyl phthalate	20 U	19 U	19 U	31	40 U	120 U	91 U	na	na	20 U
Other SVOCs										

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
1,2,4-Trichlorobenzene	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	20
1,2-Dichlorobenzene	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	5.9 U
1,3-Dichlorobenzene	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
1,4-Dichlorobenzene	23	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	88
2,4,5-Trichlorophenol	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
2,4,6-Trichlorophenol	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
2,4-Dichlorophenol	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
2,4-Dimethylphenol	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	5.9 U
2,4-Dinitrophenol	200 U	190 U	190 U	200 U	400 U	1,200 U	910 U	na	na	200 U
2,4-Dinitrotoluene	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
2,6-Dinitrotoluene	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
2-Chlorophenol	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
2-Methylphenol	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	5.9 U
2-Nitroaniline	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
2-Nitrophenol	98 U	95 U	96 UJ	98 UJ	200 UJ	600 UJ	91 U	na	na	98 U
3,3'-Dichlorobenzidine	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
3-Nitroaniline	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
4,6-Dinitro-o-cresol	200 U	190 U	190 U	200 U	400 U	1,200 U	910 U	na	na	200 U
4-Bromophenyl phenyl ether	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
4-Chloro-3-methylphenol	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
4-Chloroaniline	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
4-Chlorophenyl phenyl ether	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
4-Methylphenol	20 U	19 U	19 U	20 U	23 J	120 U	91 U	na	na	20 U
4-Nitroaniline	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
4-Nitrophenol	98 U	95 U	96 U	98 U	200 U	600 U	460 U	na	na	98 U
Aniline	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
Benzoic acid	200 U	190 U	190 U	200 U	400 U	1,200 U	910 U	na	na	200 U
Benzyl alcohol	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
bis(2-chloroethoxy)methane	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
bis(2-chloroethyl)ether	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
bis(2-chloroisopropyl)ether	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
Carbazole	20 U	19 U	11 J	20 U	77	120	71 J	na	na	20 U
Hexachlorobenzene	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	5.9 U
Hexachlorobutadiene	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	5.9 U
Hexachlorocyclopentadiene	98 U	95 U	96 UJ	98 UJ	200 UJ	600 UJ	460 U	na	na	98 U
Hexachloroethane	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
Isophorone	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
n-Nitroso-di-n-propylamine	30 U	30 U	31 U	29 U	200 U	130 U	45 J	na	na	98 U
n-Nitrosodimethylamine	30 U	30 U	31 U	29 U	92 U	92 U	31 U	na	na	30 U
n-Nitrosodiphenylamine	6.1 U	6.1 U	6.1 U	5.9 U	18 U	18 U	6.1 U	na	na	20 U
Nitrobenzene	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
Pentachlorophenol	30 UJ	30 UJ	31 U	29 U	92 UJ	92 UJ	31 U	na	na	30 UJ
Phenol	20 U	19 U	19 U	20 U	40 U	120 U	91 U	na	na	20 U
PCBs										
Aroclor-1016	3.9 U	3.9 U	20 U	4.0 U	88 U	100 U	3.9 U	na	na	53 U
Aroclor-1221	3.9 U	3.9 U	20 U	4.0 U	88 U	100 U	3.9 U	na	na	53 U
Aroclor-1232	3.9 U	3.9 U	20 U	4.0 U	88 U	100 U	3.9 U	na	na	53 U
Aroclor-1242	3.9 U	3.9 U	20 U	4.0 U	88 U	100 U	3.9 U	na	na	53 U
Aroclor-1248	3.9 U	3.9 U	34	4.0 U	1,200	1,300	3.9 U	na	na	130 U
Aroclor-1254	6.7	3.9 U	91	4.0 U	1,500	2,400	3.9 U	na	na	560
Aroclor-1260	4.9	3.9 U	110	4.0 U	860	3,900	3.9 U	na	na	410
Aroclor-1262	3.9 U	3.9 U	20 U	4.0 U	88 U	100 U	3.9 U	na	na	53 U

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
Aroclor-1268	3.9 U	3.9 U	20 U	4.0 U	88 U	100 U	3.9 U	na	na	53 U
Total PCBs	11.6	3.9 U	240	4.0 U	3,600	7,600	3.9 U	na	na	970
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.2	0.1 U	0.1	0.1 U	1.4	0.2	na	na	na	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	0.2	0.1	0.9	0.1 U	1.2	0.6	na	na	na	0.2
Fractional % phi 0-1 (500-1000 microns)	0.3	0.1	7.2	0.1	1.4	0.7	na	na	na	0.2
Fractional % phi 1-2 (250-500 microns)	1.8	0.2	36.6	1.0	5.3	1.6	na	na	na	0.2
Fractional % phi 2-3 (125-250 microns)	26.0	2.2	36.8	10.3	7.2	5.3	na	na	na	0.7
Fractional % phi 3-4 (62.5-125 microns)	29.6	22.3	6.6	25.0	4.9	5.8	na	na	na	2.5
Fractional % phi 4-5 (31.2-62.5 microns)	16.6	28.7	3.3	26.1	4.8	7.1	na	na	na	10.4
Fractional % phi 5-6 (15.6-31.2 microns)	10.8	20.3	2.1	17.8	9.8	10.6	na	na	na	17.1
Fractional % phi 6-7 (7.8-15.6 microns)	4.8	10.0	1.5	7.9	13.2	13.9	na	na	na	17.9
Fractional % phi 7-8 (3.9-7.8 microns)	2.9	5.3	1.2	3.6	13.9	15.1	na	na	na	14.7
Fractional % phi 8-9 (1.95-3.9 microns)	1.9	3.4	1.0	2.7	11.1	13.1	na	na	na	11.2
Fractional % phi 9-10 (0.98-1.95 microns)	1.4	2.1	0.8	1.4	8.1	7.8	na	na	na	8.3
Fractional % phi 10+ (<0.98 micron)	3.5	5.3	1.8	4.0	17.8	18.2	na	na	na	16.4

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC25		EW10-SC26		EW10-SC27					
	EW10-SC25-0.8-2.8	EW10-SC25-2.8-4.8	EW10-SC26-0-2.7	EW10-SC26-2.7-4	EW10-SC27-0-2	EW10-SC27-2-4	EW10-SC27-6-7.7	EW10-SC27-7.7-10	EW10-SC27-10-12.5	EW10-SC28-1-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2.8 ft	2.8-4.8 ft	0-2.7 ft	2.7-4 ft	0-2 ft	2-4 ft	6-7.7 ft	7.7-10 ft	10-12.5 ft	1-3 ft
Total gravel	0.2	0.1 U	0.1	0.1 U	1.4	0.2	na	na	na	0.1 U
Total sand	57.9	24.9	88.1	36.4	20.0	14.0	na	na	na	3.8
Total silt	35.1	64.3	8.2	55.4	41.7	46.7	na	na	na	60.1
Total clay	6.8	10.8	3.7	8.1	37.0	39.1	na	na	na	35.9
Total fines (percent silt+clay)	41.9	75.1	11.8	63.5	78.7	85.8	na	na	na	96.0
Conventionals										
Total organic carbon (TOC)	0.361	0.331	0.629	0.378	4.24	3.84	1.75	0.621	0.526	1.87
Total solids	77.20	72.80	78.47	75.13	45.20	49.10	54.30	79.30	74.30	61.10

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
Metals										
Antimony	8 UJ	na	na	na	9 UJ	9 UJ	6 UJ	9 UJ	9 UJ	9 UJ
Arsenic	8.2	na	na	na	17.5	20.8	3.6	12.0	12.2	12.6
Cadmium	2.0	na	na	na	7.3	5.7	0.3	1.7	1.7	1.8
Chromium	39.4	na	na	na	65.4	65.6	26.7	46.3	46.0	44.5
Cobalt	9.2	na	na	na	9.5	9.2	7.5	9.2	8.9	8.6
Copper	106	na	na	na	176	150	22.4	107	106	99.9
Lead	151	na	na	na	355	366	9	84	81	85
Mercury	1.18 J	0.21	0.53	0.06	3.37	2.41	0.08	0.45	0.61	0.45
Molybdenum	2.1	na	na	na	7.8	8.8	0.7	1.9	1.8	1.9
Nickel	31	na	na	na	41	39	24	28	27	27
Selenium	0.7 U	na	na	na	0.9	0.9 U	0.7 U	1 U	0.9 U	0.9 U
Silver	2.3	na	na	na	5.5	3.8	0.4 U	1.2	1.1	1.2
Thallium	0.3 U	na	na	na	0.4	0.4	0.3 U	0.4 U	0.4 U	0.3 U
Vanadium	60.3	na	na	na	81.2	85.4	48.5	68.8	69.6	68.7
Zinc	265	na	na	na	854	546	42	194	195	227
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	na	na
Dibutyltin as ion	na	na	na	na	na	na	na	na	na	na
Tributyltin as ion	na	na	na	na	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	19 J	20 UJ	na	na	82 J	4,000	71 J	14 J	20	27
2-Chloronaphthalene	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
2-Methylnaphthalene	37	20 U	na	na	110	4,400	50	22	29	23 J
Acenaphthene	54	20 U	na	na	850	6,800	430	30	37	53
Acenaphthylene	15 J	20 U	na	na	91 U	59 U	19 U	43	49	41

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
Anthracene	82	20 U	na	na	2,000	4,300	700	130	160	150
Benzo(a)anthracene	190	16 J	na	na	2,500	1,900	160	200	280	200
Benzo(a)pyrene	170	20 U	na	na	1,700	1,300	100	380	450	400
Benzo(g,h,i)perylene	39	20 U	na	na	520	410	50	110	180	100
Total benzofluoranthenes	320	20 U	na	na	3,400	2,800	140	800	840	860
Chrysene	280	15 J	na	na	2,800	2,000	150	370	520	350
Dibenzo(a,h)anthracene	38 J	20 U	na	na	240	210	10 J	58	94	60
Dibenzofuran	24	20 U	na	na	260	4,000	310	24	32	51
Fluoranthene	640	51	na	na	6,900	8,700	760	450	640	480
Fluorene	66	20 U	na	na	410	5,200	470	36	52	66
Indeno(1,2,3-cd)pyrene	37	20 U	na	na	520	440	41	110	180	110
Naphthalene	33	20 U	na	na	380	17,000	76	34	42	63
Phenanthrene	500	40	na	na	570	7,000	1,800	220	280	250
Pyrene	430	44	na	na	6,600	4,600	730	580	680	920
Total HPAHs	2,140 J	126 J	na	na	25,200	22,400	2,140 J	3,060	3,860	3,480
Total LPAHs	750 J	40	na	na	4,200	40,000	3,500	490	620	620
cPAHs - mammal - half DL	240 J	18 J	na	na	2,500	1,900	140 J	520	620	540
Total PAHs	2,890 J	166 J	na	na	29,400	63,000	5,600 J	3,550	4,480	4,100
Phthalates										
Bis(2-ethylhexyl)phthalate	90 U	16 J	na	na	1,400	210 U	21	420	690	450
Butyl benzyl phthalate	33	15 U	na	na	91 U	45 U	15 U	45	57	48
Diethyl phthalate	20 U	15 U	na	na	91 U	59 U	15 U	20 U	20 U	26 U
Dimethyl phthalate	15 U	15 U	na	na	91 U	45 U	15 U	15 U	15 U	15 U
Di-n-butyl phthalate	20 U	20 U	na	na	180	59 U	19 U	20 U	19 J	26 U
Di-n-octyl phthalate	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
Other SVOCs										

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
1,2,4-Trichlorobenzene	52	6.1 U	na	na	61 U	18 U	6.0 U	6.0 U	6.1 U	6.0 U
1,2-Dichlorobenzene	19 J	6.1 U	na	na	61 U	18 U	6.0 U	6.0 U	6.1 U	6.0 U
1,3-Dichlorobenzene	52	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
1,4-Dichlorobenzene	380	6.1 U	na	na	61 U	18 U	6.0 U	22	29	18
2,4,5-Trichlorophenol	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
2,4,6-Trichlorophenol	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
2,4-Dichlorophenol	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
2,4-Dimethylphenol	20 UJ	6.1 U	na	na	61 U	71	6.0 U	6.0 U	6.1 U	6.0 U
2,4-Dinitrophenol	200 U	200 U	na	na	910 U	590 U	190 U	200 U	200 U	260 U
2,4-Dinitrotoluene	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
2,6-Dinitrotoluene	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
2-Chlorophenol	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
2-Methylphenol	12 U	6.1 U	na	na	61 U	18 U	6.0 U	6.0 U	6.1 U	6.0 U
2-Nitroaniline	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
2-Nitrophenol	99 U	20 U	na	na	450 UJ	300 UJ	19 U	98 UJ	98 UJ	130 UJ
3,3'-Dichlorobenzidine	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
3-Nitroaniline	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
4,6-Dinitro-o-cresol	200 U	200 U	na	na	910 U	590 U	190 U	200 U	200 U	260 U
4-Bromophenyl phenyl ether	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
4-Chloro-3-methylphenol	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
4-Chloroaniline	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
4-Chlorophenyl phenyl ether	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
4-Methylphenol	20 U	20 U	na	na	91 U	59 U	19 U	20 U	17 J	26 U
4-Nitroaniline	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
4-Nitrophenol	99 U	97 U	na	na	450 U	300 U	96 U	98 U	98 U	130 U
Aniline	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
Benzoic acid	200 U	200 U	na	na	910 U	590 U	190 U	200 U	200 U	260 U
Benzyl alcohol	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
bis(2-chloroethoxy)methane	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
bis(2-chloroethyl)ether	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
bis(2-chloroisopropyl)ether	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
Carbazole	29	20 U	na	na	140	230	120	46	60	49
Hexachlorobenzene	6.1 U	6.1 U	na	na	61 U	18 U	6.0 U	6.0 U	6.1 U	6.0 U
Hexachlorobutadiene	6.1 U	6.1 U	na	na	61 U	18 U	6.0 U	6.0 U	6.1 U	6.0 U
Hexachlorocyclopentadiene	99 U	97 U	na	na	450 UJ	300 UJ	96 U	98 UJ	98 UJ	130 UJ
Hexachloroethane	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
Isophorone	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
n-Nitroso-di-n-propylamine	99 U	30 U	na	na	310 U	130 U	30 U	30 U	30 U	30 U
n-Nitrosodimethylamine	30 U	30 U	na	na	310 U	89 U	30 U	30 U	30 U	30 U
n-Nitrosodiphenylamine	6.1 U	6.1 U	na	na	91 U	59 U	6.0 U	6.0 U	7.3 U	6.0 U
Nitrobenzene	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
Pentachlorophenol	30 UJ	30 U	na	na	310 U	89 U	30 U	30 UJ	30 UJ	30 UJ
Phenol	20 U	20 U	na	na	91 U	59 U	19 U	20 U	20 U	26 U
PCBs										
Aroclor-1016	320 U	3.9 U	na	na	390 U	4.0 U	3.9 U	20 U	20 U	35 U
Aroclor-1221	320 U	3.9 U	na	na	390 U	4.0 U	3.9 U	20 U	20 U	35 U
Aroclor-1232	320 U	3.9 U	na	na	390 U	4.0 U	3.9 U	20 U	20 U	35 U
Aroclor-1242	320 U	3.9 U	na	na	390 U	4.0 U	3.9 U	20 U	20 U	35 U
Aroclor-1248	790 U	3.9 U	na	na	490 U	9.9 U	3.9 U	160	160	180
Aroclor-1254	5,600	3.9 U	na	na	4,200	30	3.9 U	290	250	310
Aroclor-1260	3,800	3.9 U	na	na	5,800	74	3.9 U	230	270	380
Aroclor-1262	320 U	3.9 U	na	na	390 U	4.0 U	3.9 U	20 U	20 U	35 U

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
Aroclor-1268	320 U	3.9 U	na	na	390 U	4.0 U	3.9 U	20 U	20 U	35 U
Total PCBs	9,400	3.9 U	na	na	10,000	104	3.9 U	680	680	870
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1	na	na	na	0.8	8.0	na	0.5	0.2	1.3
Fractional % phi -1-0 (1000-2000 microns)	0.7	na	na	na	2.6	3.1	na	0.9	1.1	0.6
Fractional % phi 0-1 (500-1000 microns)	0.6	na	na	na	1.4	1.8	na	1.3	1.5	1.0
Fractional % phi 1-2 (250-500 microns)	2.3	na	na	na	5.8	3.6	na	3.1	2.9	3.4
Fractional % phi 2-3 (125-250 microns)	11.6	na	na	na	9.8	7.7	na	7.6	7.5	12.0
Fractional % phi 3-4 (62.5-125 microns)	10.7	na	na	na	6.5	5.6	na	11.1	11.4	13.2
Fractional % phi 4-5 (31.2-62.5 microns)	13.0	na	na	na	6.7	6.7	na	10.0	11.6	12.6
Fractional % phi 5-6 (15.6-31.2 microns)	12.2	na	na	na	8.3	8.7	na	14.3	13.0	9.4
Fractional % phi 6-7 (7.8-15.6 microns)	12.9	na	na	na	13.8	12.5	na	13.2	13.3	10.7
Fractional % phi 7-8 (3.9-7.8 microns)	10.5	na	na	na	11.4	11.5	na	11.8	11.3	10.0
Fractional % phi 8-9 (1.95-3.9 microns)	8.4	na	na	na	10.2	9.3	na	8.0	8.1	7.7
Fractional % phi 9-10 (0.98-1.95 microns)	5.7	na	na	na	7.9	7.1	na	5.9	5.4	5.4
Fractional % phi 10+ (<0.98 micron)	11.3	na	na	na	14.7	14.2	na	12.2	12.7	12.7

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC28				EW10-SC29					
	EW10-SC28-3-5	EW10-SC28-6.2-8	EW10-SC28-8-10	EW10-SC28-10-11.7	EW10-SC29-0-2	EW10-SC29-2-3.9	EW10-SC29-9.7-11.7	EW10-SC30-0-2	EW10-SC203-0-2	EW10-SC30-2-4.3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	FD	N
	3-5 ft	6.2-8 ft	8-10 ft	10-11.7 ft	0-2 ft	2-3.9 ft	9.7-11.7 ft	0-2 ft	0-2 ft	2-4.3 ft
Total gravel	0.1	na	na	na	0.8	8.0	na	0.5	0.2	1.3
Total sand	25.9	na	na	na	26.1	21.8	na	24.0	24.4	30.2
Total silt	48.6	na	na	na	40.2	39.4	na	49.3	49.2	42.7
Total clay	25.4	na	na	na	32.8	30.6	na	26.1	26.2	25.8
Total fines (percent silt+clay)	74.0	na	na	na	73.0	70.0	na	75.4	75.4	68.5
Conventionals										
Total organic carbon (TOC)	2.35	0.845	1.41	0.489	5.38	4.79	0.800	1.66	1.87	1.79
Total solids	63.10	68.00	66.70	73.70	51.30	53.30	73.40	52.00	51.30	57.20

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
Metals										
Antimony	9 UJ	na	na	na	na	6 UJ	6 UJ	9 UJ	10 UJ	10 UJ
Arsenic	12.2	na	na	na	na	3.6	4.7	17.4	15.9	18.9
Cadmium	1.7	na	na	na	na	0.6	0.4	6.2	6.1	6.8
Chromium	47.4	na	na	na	na	18.4	22.9	84.2	86	67
Cobalt	8.6	na	na	na	na	5.4	7.3	11.4	11.2	10.6
Copper	105	na	na	na	na	28.8	28.7	151	148	183
Lead	90	na	na	na	na	49	19	256	279	439
Mercury	0.44	0.32	0.40	0.03 U	0.02 U	0.38 J	0.19 J	1.39	1.15	3.03
Molybdenum	1.9	na	na	na	na	1.5	0.9	4.2	5	10
Nickel	28	na	na	na	na	13	18	43	43	45
Selenium	0.9 U	na	na	na	na	3 U	0.6 U	1 U	1 U	1 U
Silver	1.1	na	na	na	na	0.5	0.4 U	4.1	4.3	6.7
Thallium	0.3 U	na	na	na	na	0.3 U	0.3 U	0.4 U	0.4 U	0.5
Vanadium	68.0	na	na	na	na	45.8	53.6	80.2	76.7	82.3
Zinc	228	na	na	na	na	80	54	625	572	625
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	na	na
Dibutyltin as ion	na	na	na	na	na	na	na	na	na	na
Tributyltin as ion	na	na	na	na	na	na	na	na	na	na
PAHs										
1-Methylnaphthalene	16 J	na	na	na	na	20 U	20 U	940	670	430
2-Chloronaphthalene	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
2-Methylnaphthalene	19 J	na	na	na	na	20 U	20 U	1,100	770	350
Acenaphthene	32	na	na	na	na	20 U	20 U	1,300	940	1,500
Acenaphthylene	32	na	na	na	na	20 U	20 U	32 U	32 U	96 U

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
Anthracene	100	na	na	na	na	40	16 J	870	420	1,200
Benzo(a)anthracene	170	na	na	na	na	81	38	820	400	1,500
Benzo(a)pyrene	300	na	na	na	na	74	34	520	350	1,100
Benzo(g,h,i)perylene	120	na	na	na	na	23 J	11 J	160	100	340
Total benzofluoranthenes	560	na	na	na	na	140	58	1,100	620	2,000
Chrysene	300	na	na	na	na	120	52	1,100	760	1,800
Dibenzo(a,h)anthracene	66	na	na	na	na	17 J	7.1 J	65	51	150
Dibenzofuran	31	na	na	na	na	20 U	20 U	880	610	740
Fluoranthene	390	na	na	na	na	190	91	3,700	2,500	4,900
Fluorene	41	na	na	na	na	12 J	20 U	1,400	1,000	1,800
Indeno(1,2,3-cd)pyrene	130	na	na	na	na	22 J	12 J	140	96	300
Naphthalene	48	na	na	na	na	20 U	20 U	1,000	780	450
Phenanthrene	180	na	na	na	na	62	50	4,100	2,300	5,200
Pyrene	580	na	na	na	na	190	87	2,300	1,600	3,800
Total HPAHs	2,620	na	na	na	na	860 J	390 J	9,900	6,500	15,900
Total LPAHs	430	na	na	na	na	114 J	66 J	8,700	5,400	10,200
cPAHs - mammal - half DL	420	na	na	na	na	110 J	48 J	760	490	1,600
Total PAHs	3,050	na	na	na	na	970 J	456 J	18,600	11,900	26,000
Phthalates										
Bis(2-ethylhexyl)phthalate	320	na	na	na	na	42 U	25 U	2,200	1,500	660
Butyl benzyl phthalate	47	na	na	na	na	16	15 U	120	87	67
Diethyl phthalate	19 U	na	na	na	na	22	20 U	32 U	32 U	96 U
Dimethyl phthalate	15 U	na	na	na	na	15 U	15 U	32 U	32 U	46 U
Di-n-butyl phthalate	31	na	na	na	na	20 U	20 U	32 U	32 U	96 U
Di-n-octyl phthalate	19 U	na	na	na	na	20 UJ	20 U	32 U	32 U	96 U
Other SVOCs										

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
1,2,4-Trichlorobenzene	6.1 U	na	na	na	na	6.0	5.9 U	19 U	18 U	18 U
1,2-Dichlorobenzene	6.1 U	na	na	na	na	6.0 U	5.9 U	19 U	18 U	18 U
1,3-Dichlorobenzene	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
1,4-Dichlorobenzene	20	na	na	na	na	13	5.9 U	71	64	73 J
2,4,5-Trichlorophenol	97 U	na	na	na	na	98 U	99 U	160 U	160 U	480 U
2,4,6-Trichlorophenol	97 U	na	na	na	na	98 UJ	99 U	160 U	160 U	480 U
2,4-Dichlorophenol	97 U	na	na	na	na	98 U	99 U	160 U	160 U	480 U
2,4-Dimethylphenol	6.1 U	na	na	na	na	6.0 U	5.9 U	38	38	41 J
2,4-Dinitrophenol	190 U	na	na	na	na	200 U	200 U	320 U	320 U	960 U
2,4-Dinitrotoluene	97 U	na	na	na	na	98 U	99 U	160 U	160 U	480 U
2,6-Dinitrotoluene	97 U	na	na	na	na	98 U	99 U	160 U	160 U	480 U
2-Chlorophenol	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
2-Methylphenol	6.1 U	na	na	na	na	6.0 U	5.9 U	19 U	18 U	22 J
2-Nitroaniline	97 U	na	na	na	na	98 U	99 U	160 U	160 U	480 U
2-Nitrophenol	97 UJ	na	na	na	na	98 U	99 U	160 UJ	160 UJ	480 UJ
3,3'-Dichlorobenzidine	97 U	na	na	na	na	R	99 U	160 U	160 U	480 U
3-Nitroaniline	97 U	na	na	na	na	R	99 U	160 U	160 U	480 U
4,6-Dinitro-o-cresol	190 U	na	na	na	na	200 U	200 U	320 U	320 U	960 U
4-Bromophenyl phenyl ether	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
4-Chloro-3-methylphenol	97 U	na	na	na	na	R	99 U	160 U	160 U	480 U
4-Chloroaniline	97 U	na	na	na	na	R	99 U	160 U	160 U	480 U
4-Chlorophenyl phenyl ether	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
4-Methylphenol	11 J	na	na	na	na	20 U	20 U	32 U	32 U	96 U
4-Nitroaniline	97 U	na	na	na	na	R	99 U	160 U	160 U	480 U
4-Nitrophenol	97 U	na	na	na	na	R	99 U	160 U	160 U	480 U
Aniline	19 U	na	na	na	na	R	20 U	32 U	32 U	96 U

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
Benzoic acid	190 U	na	na	na	na	200 U	200 U	320 U	320 U	960 U
Benzyl alcohol	19 U	na	na	na	na	R	20 U	32 U	32 U	96 U
bis(2-chloroethoxy)methane	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
bis(2-chloroethyl)ether	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
bis(2-chloroisopropyl)ether	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
Carbazole	38	na	na	na	na	12 J	20 U	88	32 U	140
Hexachlorobenzene	6.1 U	na	na	na	na	6.0 U	5.9 U	19 U	18 U	18 U
Hexachlorobutadiene	6.1 U	na	na	na	na	6.0 U	5.9 U	19 U	18 U	18 U
Hexachlorocyclopentadiene	97 UJ	na	na	na	na	R	99 U	160 UJ	160 UJ	480 UJ
Hexachloroethane	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
Isophorone	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
n-Nitroso-di-n-propylamine	31 U	na	na	na	na	33 U	30 U	160 U	160 U	480 U
n-Nitrosodimethylamine	31 U	na	na	na	na	30 U	30 U	94 U	91 U	93 U
n-Nitrosodiphenylamine	6.1 U	na	na	na	na	7.2 U	5.9 U	32 U	32 U	18 U
Nitrobenzene	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
Pentachlorophenol	31 UJ	na	na	na	na	30 UJ	30 UJ	94 UJ	91 UJ	93 UJ
Phenol	19 U	na	na	na	na	20 U	20 U	32 U	32 U	96 U
PCBs										
Aroclor-1016	19 U	20 U	20 U	19 U	20 U	20 U	20 U	78 U	78 U	100 U
Aroclor-1221	19 U	20 U	20 U	19 U	20 U	20 U	20 U	78 U	78 U	100 U
Aroclor-1232	19 U	20 U	20 U	19 U	20 U	20 U	20 U	78 U	78 U	100 U
Aroclor-1242	19 U	20 U	20 U	19 U	20 U	20 U	20 U	78 U	78 U	100 U
Aroclor-1248	150	120	120	19 U	20 U	49 U	29 U	1,100	940	500 U
Aroclor-1254	230	140	150	19 U	20 U	220	56	1,600	1,200	3,600
Aroclor-1260	240	140	180	19 U	20 U	260	45	1,500	1,200	2,900
Aroclor-1262	19 U	20 U	20 U	19 U	20 U	20 U	20 U	78 U	78 U	100 U

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
Aroclor-1268	19 U	20 U	20 U	19 U	20 U	20 U	20 U	78 U	78 U	100 U
Total PCBs	620	400	450	19 U	20 U	480	101	4,200	3,300	6,500
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.2	na	na	na	na	2.0	0.1	9.9	0.5	0.9
Fractional % phi -1-0 (1000-2000 microns)	0.6	na	na	na	na	1.6	0.4	1.0	1.6	2.4
Fractional % phi 0-1 (500-1000 microns)	0.8	na	na	na	na	3.1	2.6	0.8	1.0	1.2
Fractional % phi 1-2 (250-500 microns)	3.4	na	na	na	na	19.1	12.5	1.4	1.7	2.1
Fractional % phi 2-3 (125-250 microns)	12.7	na	na	na	na	37.8	23.3	3.9	4.7	4.1
Fractional % phi 3-4 (62.5-125 microns)	13.3	na	na	na	na	14.2	15.9	5.7	6.7	5.8
Fractional % phi 4-5 (31.2-62.5 microns)	12.0	na	na	na	na	4.5	9.7	8.1	8.3	12.7
Fractional % phi 5-6 (15.6-31.2 microns)	8.7	na	na	na	na	3.4	9.4	9.3	11.9	11.8
Fractional % phi 6-7 (7.8-15.6 microns)	11.4	na	na	na	na	3.7	6.9	15.3	16.6	14.4
Fractional % phi 7-8 (3.9-7.8 microns)	10.7	na	na	na	na	3.1	5.5	12.9	13.9	13.3
Fractional % phi 8-9 (1.95-3.9 microns)	7.6	na	na	na	na	1.9	4.1	10.1	10.6	9.5
Fractional % phi 9-10 (0.98-1.95 microns)	5.7	na	na	na	na	2.1	3.0	6.6	7.1	7.0
Fractional % phi 10+ (<0.98 micron)	12.8	na	na	na	na	3.6	6.7	14.9	15.5	14.8

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC30					EW10-SC31				
	EW10-SC203-2-4.3	EW10-SC30-4.3-6	EW10-SC203-4.3-6	EW10-SC30-6-8	EW10-SC203-6-8	EW10-SC31-0.7-2.7	EW10-SC31-2.7-5.3	EW10-SC32-0-2	EW10-SC204-0-2	EW10-SC32-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	FD	N
	2-4.3 ft	4.3-6 ft	4.3-6 ft	6-8 ft	6-8 ft	0.7-2.7 ft	2.7-5.3 ft	0-2 ft	0-2 ft	2-4 ft
Total gravel	0.2	na	na	na	na	2.0	0.1	9.9	0.5	0.9
Total sand	30.8	na	na	na	na	75.8	54.8	12.8	15.7	15.6
Total silt	42.8	na	na	na	na	14.7	31.4	45.6	50.7	52.2
Total clay	26.1	na	na	na	na	7.6	13.8	31.6	33.2	31.3
Total fines (percent silt+clay)	68.9	na	na	na	na	22.3	45.2	77.2	83.9	83.5
Conventionals										
Total organic carbon (TOC)	2.16	1.20	1.48	0.432	0.484	1.25	0.958	2.93	3.40	5.02
Total solids	56.60	70.00	70.90	73.10	72.60	75.33	73.20	50.30	49.40	49.10

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
Metals										
Antimony	10 UJ	7 UJ	7 UJ	na	na	8 UJ	9 UJ	6 UJ	na	7 UJ
Arsenic	19.8	5.7	0.3 U	na	na	14.1 J	20.4 J	1.5	na	6.4
Cadmium	6.9	0.6	0.7	na	na	5.3	4.3	0.2 U	na	0.4
Chromium	66	25.1	25.1	na	na	75.4	65.8	9.5	na	37.0
Cobalt	10.8	7.6	7.7	na	na	10.8	11.7	3.7	na	9.9
Copper	201	33.5	33.1	na	na	146 J	137 J	8.1	na	36.3
Lead	429	16	23	na	na	216 J	208 J	2 U	na	14
Mercury	2.87	0.31	0.44	0.09	0.06	1.95 J	0.99 J	0.03 U	0.03 U	0.15 J
Molybdenum	10	1.4	1.8	na	na	5.8	4.4	0.6 U	na	0.7
Nickel	44	21	21	na	na	39	39	7	na	32
Selenium	1	0.6 U	0.7 U	na	na	0.8 U	0.8 U	0.6 U	na	0.7 U
Silver	6.8	0.4 U	0.4 U	na	na	3.0	2.9	0.4 U	na	0.4 U
Thallium	0.5	0.3 U	0.3 U	na	na	0.3 U	0.3	0.2 U	na	0.3 U
Vanadium	81.6	53.7	54.0	na	na	69.1	76.0	31.7	na	64.9
Zinc	621	60	77	na	na	578	494	19	na	62
Organometals										
Monobutyltin as ion	na	na	na	na	na	19	3.7 U	na	na	na
Dibutyltin as ion	na	na	na	na	na	160	5.2 U	na	na	na
Tributyltin as ion	na	na	na	na	na	280	3.5 U	na	na	na
PAHs										
1-Methylnaphthalene	380	20 UJ	19 UJ	na	na	25	120	20 UJ	na	19 U
2-Chloronaphthalene	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
2-Methylnaphthalene	340	20 U	19 U	na	na	30	110	20 U	na	15 J
Acenaphthene	1,300	13 J	14 J	na	na	70	410	20 U	na	15 J
Acenaphthylene	39 U	20 U	19 U	na	na	36	27 U	20 U	na	12 J

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
Anthracene	1,500	46	58	na	na	210	920	20 U	na	33
Benzo(a)anthracene	950	52	82	na	na	280	900	20 U	na	47
Benzo(a)pyrene	830	50	71	na	na	400	470	20 U	na	40
Benzo(g,h,i)perylene	370	35	49	na	na	160	130	20 U	na	12 J
Total benzofluoranthenes	1,700	86	110	na	na	720	940	20 U	na	54
Chrysene	2,000	94	100	na	na	380	860	20 U	na	53
Dibenzo(a,h)anthracene	160	20 U	11 J	na	na	85	71	20 U	na	7.8 J
Dibenzofuran	710	20 U	11 J	na	na	30	240	20 U	na	19 U
Fluoranthene	5,000	230	280	na	na	820	4,700	20 U	na	100
Fluorene	1,500	18 J	19 J	na	na	50	450	20 U	na	27
Indeno(1,2,3-cd)pyrene	350	26	33	na	na	140	140	20 U	na	14 J
Naphthalene	420	13 J	12 J	na	na	45	170	20 U	na	13 J
Phenanthrene	4,700	100	110	na	na	310	520	20 U	na	140
Pyrene	3,500	200	230	na	na	1,000	3,000	20 U	na	110 J
Total HPAHs	14,900	770	970 J	na	na	4,000	11,200	20 U	na	440 J
Total LPAHs	9,400	190 J	210 J	na	na	720	2,470	20 U	na	240 J
cPAHs - mammal - half DL	1,200	71	99 J	na	na	550	710	17 U	na	55 J
Total PAHs	24,300	960 J	1,180 J	na	na	4,700	13,700	20 U	na	680 J
Phthalates										
Bis(2-ethylhexyl)phthalate	770	21	18 J	na	na	1,000	1,300	19 J	na	19 U
Butyl benzyl phthalate	39 U	15 U	15 U	na	na	24	15 U	15 U	na	15 U
Diethyl phthalate	39 U	15 U	15 U	na	na	25 U	27 U	15 U	na	19 U
Dimethyl phthalate	39 U	15 U	15 U	na	na	15 U	15 U	15 U	na	15 U
Di-n-butyl phthalate	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	10 J
Di-n-octyl phthalate	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
Other SVOCs										

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
1,2,4-Trichlorobenzene	62	5.9 U	5.9 U	na	na	6.0 U	6.0 U	5.9 U	na	6.0 U
1,2-Dichlorobenzene	39 U	5.9 U	5.9 U	na	na	6.0 U	6.0 U	5.9 U	na	6.0 U
1,3-Dichlorobenzene	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
1,4-Dichlorobenzene	140	5.9 U	5.9 U	na	na	14 J	6.0 U	5.9 U	na	6.0 U
2,4,5-Trichlorophenol	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
2,4,6-Trichlorophenol	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
2,4-Dichlorophenol	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
2,4-Dimethylphenol	39 U	5.9 U	5.9 U	na	na	6.0 U	6.0 U	5.9 U	na	6.0 U
2,4-Dinitrophenol	390 U	200 U	190 U	na	na	250 U	270 U	200 U	na	190 U
2,4-Dinitrotoluene	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
2,6-Dinitrotoluene	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
2-Chlorophenol	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
2-Methylphenol	39 U	5.9 U	5.9 U	na	na	6.0 U	6.0 U	5.9 U	na	6.0 U
2-Nitroaniline	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
2-Nitrophenol	190 UJ	20 U	19 U	na	na	130 U	140 U	20 U	na	96 U
3,3'-Dichlorobenzidine	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
3-Nitroaniline	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
4,6-Dinitro-o-cresol	390 U	200 U	190 U	na	na	250 U	270 U	200 U	na	190 U
4-Bromophenyl phenyl ether	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
4-Chloro-3-methylphenol	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
4-Chloroaniline	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
4-Chlorophenyl phenyl ether	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
4-Methylphenol	39 U	20 U	19 U	na	na	44	72	20 U	na	19 U
4-Nitroaniline	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
4-Nitrophenol	190 U	97 U	96 U	na	na	130 U	140 U	98 U	na	96 U
Aniline	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
Benzoic acid	390 U	200 U	190 U	na	na	250 U	270 U	200 U	na	190 U
Benzyl alcohol	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
bis(2-chloroethoxy)methane	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
bis(2-chloroethyl)ether	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
bis(2-chloroisopropyl)ether	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
Carbazole	88	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
Hexachlorobenzene	39 U	5.9 U	5.9 U	na	na	6.0 U	6.0 U	5.9 U	na	6.0 U
Hexachlorobutadiene	39 U	5.9 U	5.9 U	na	na	6.0 U	6.0 U	5.9 U	na	6.0 U
Hexachlorocyclopentadiene	190 UJ	97 U	96 U	na	na	130 UJ	140 UJ	98 U	na	96 UJ
Hexachloroethane	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
Isophorone	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
n-Nitroso-di-n-propylamine	190 U	30 U	30 U	na	na	30 U	30 U	30 U	na	30 U
n-Nitrosodimethylamine	310 U	30 U	30 U	na	na	30 U	30 U	30 U	na	30 U
n-Nitrosodiphenylamine	39 U	5.9 U	5.9 U	na	na	12	27 U	5.9 U	na	6.0 U
Nitrobenzene	39 U	20 U	19 U	na	na	25 U	27 U	20 U	na	19 U
Pentachlorophenol	190 U	30 U	30 U	na	na	30 U	30 U	30 U	na	30 U
Phenol	39 U	20 U	19 U	na	na	100	27 U	20 U	na	19 U
PCBs										
Aroclor-1016	130 U	3.9 U	3.8 U	na	na	35 U	36 U	4.0 U	na	3.9 U
Aroclor-1221	130 U	3.9 U	3.8 U	na	na	35 U	36 U	4.0 U	na	3.9 U
Aroclor-1232	130 U	3.9 U	3.8 U	na	na	35 U	36 U	4.0 U	na	3.9 U
Aroclor-1242	130 U	3.9 U	3.8 U	na	na	35 U	36 U	4.0 U	na	3.9 U
Aroclor-1248	330 U	3.9 U	3.8 U	na	na	860	1,100	4.0 U	na	3.9 U
Aroclor-1254	3,300	3.9 U	3.8 U	na	na	1,000	1,200	4.0 U	na	3.9 U
Aroclor-1260	2,500	3.9 U	3.8 U	na	na	1,000	1,200	4.0 U	na	3.9 U
Aroclor-1262	130 U	3.9 U	3.8 U	na	na	35 U	36 U	4.0 U	na	3.9 U

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
Aroclor-1268	130 U	3.9 U	3.8 U	na	na	35 U	36 U	4.0 U	na	3.9 U
Total PCBs	5,800	3.9 U	3.8 U	na	na	2,900	3,500	4.0 U	na	3.9 U
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	3.6	na	na	na	na	2.6	0.1 U	na	na	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	3.9	na	na	na	na	1.3	0.6	na	na	0.3
Fractional % phi 0-1 (500-1000 microns)	1.6	na	na	na	na	3.4	1.1	na	na	0.4
Fractional % phi 1-2 (250-500 microns)	2.5	na	na	na	na	10.1	4.2	na	na	2.1
Fractional % phi 2-3 (125-250 microns)	4.7	na	na	na	na	8.3	6.5	na	na	11.5
Fractional % phi 3-4 (62.5-125 microns)	6.6	na	na	na	na	7.8	8.1	na	na	16.7
Fractional % phi 4-5 (31.2-62.5 microns)	7.1	na	na	na	na	8.1	8.9	na	na	15.6
Fractional % phi 5-6 (15.6-31.2 microns)	13.6	na	na	na	na	9.1	9.0	na	na	9.5
Fractional % phi 6-7 (7.8-15.6 microns)	14.0	na	na	na	na	11.5	12.3	na	na	9.0
Fractional % phi 7-8 (3.9-7.8 microns)	11.6	na	na	na	na	10.6	12.9	na	na	9.5
Fractional % phi 8-9 (1.95-3.9 microns)	10.4	na	na	na	na	8.6	10.8	na	na	8.0
Fractional % phi 9-10 (0.98-1.95 microns)	6.8	na	na	na	na	5.4	7.0	na	na	5.4
Fractional % phi 10+ (<0.98 micron)	13.5	na	na	na	na	13.4	18.5	na	na	12.1

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC32					EW10-SC33				EW10
	EW10-SC204-2-4	EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9	EW10-SC32-10.9-12.9	EW10-SC204-10.9-12.9	EW10-SC33-0-2	EW10-SC33-2-3.5	EW10-SC33-5.8-8	EW10-SC33-8-9.8	EW10-SC34-0.2-2.4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	FD	N	FD	N	FD	N	N	N	N	N
	2-4 ft	8.9-10.9 ft	8.9-10.9 ft	10.9-12.9 ft	10.9-12.9 ft	0-2 ft	2-3.5 ft	5.8-8 ft	8-9.8 ft	0.2-2.4 ft
Total gravel	3.6	na	na	na	na	2.6	0.1 U	na	na	0.1 U
Total sand	19.3	na	na	na	na	30.9	20.5	na	na	31.0
Total silt	46.3	na	na	na	na	39.3	43.1	na	na	43.6
Total clay	30.7	na	na	na	na	27.4	36.3	na	na	25.5
Total fines (percent silt+clay)	77.0	na	na	na	na	66.7	79.4	na	na	69.1
Conventionals										
Total organic carbon (TOC)	5.75	1.14	1.18	0.626	0.910	2.97	2.22	0.165	1.20	0.982
Total solids	49.10	68.30	69.80	71.80	73.00	57.90	55.00	77.80	75.20	67.50

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202-0-2	EW10-SC37-2-3.9	EW10-SC202-2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
Metals										
Antimony	7 UJ	8 UJ	6 UJ	6 UJ	6 UJ	7 UJ	7 UJ	7 UJ	6 UJ	6 UJ
Arsenic	3.8	8.6	3.1	5.6	2.1	5.3	5.3	2.8	3.0	3.0
Cadmium	0.3 U	2.1	0.4	0.3	0.2 U	0.7	0.7	0.3 U	0.3 U	0.3 U
Chromium	23.4	40.6	16.3	22.3	12.4	20.9	21.8	12.4	12.3	15.0
Cobalt	7.1	7.5	4.6	6.4	4.1	5.3	5.4	4.4	4.2	5.3
Copper	22.4	73.6	24.3	25.6 J	13.8 J	34.6	35.4	16.2	15.3	23.9
Lead	4	73	8	15	2 U	25	28	3 U	3 U	3 U
Mercury	0.06 J	0.38	0.04	0.08	0.03 U	0.14	0.16	0.03 U	0.03 U	0.02 U
Molybdenum	0.7 U	2.3	0.7	0.9	0.6 U	1.3	1.4	0.7 U	0.6 U	0.7
Nickel	19	25	10	19	8	13	13	9	8	11
Selenium	0.7 U	0.8 U	0.6 U	0.6 U	0.6 U	0.7 U	0.7 U	0.7 U	0.6 U	0.7 U
Silver	0.4 U	0.9	0.4 U	0.4 U	0.4 U	0.4 U	0.4	0.4 U	0.4 U	0.4 U
Thallium	0.3 U	0.3 U	0.2 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Vanadium	52.8	59.4	47.6	49.1	39.8	49.9	50.7	46.4	45.1	51.3
Zinc	37	191	39	45 J	21 J	60	64	25	25	27
Organometals										
Monobutyltin as ion	na	na	na	3.6 U	3.6 U	3.7 U	na	3.7 U	na	na
Dibutyltin as ion	na	na	na	5.0 UJ	5.1 UJ	5.2 U	na	5.2 U	na	na
Tributyltin as ion	na	na	na	3.4 U	3.4 U	13 J	na	3.5 U	na	na
PAHs										
1-Methylnaphthalene	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
2-Chloronaphthalene	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
2-Methylnaphthalene	20 U	16 J	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Acenaphthene	20 U	13 J	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Acenaphthylene	20 U	15 J	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202-0-2	EW10-SC37-2-3.9	EW10-SC202-2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
Anthracene	20 U	44	21 U	12 J	19 U	23	22	19 U	20 U	19 U
Benzo(a)anthracene	16 J	78	21 U	20	19 U	43	68	19 U	20 U	19 U
Benzo(a)pyrene	13 J	150	12 J	19 J	19 U	74	100	19 U	20 U	19 U
Benzo(g,h,i)perylene	20 U	44	21 U	10 J	19 U	21	39	19 U	20 U	19 U
Total benzofluoranthenes	17 J	300	28 J	32 J	19 U	150	200	19 U	20 U	19 U
Chrysene	16 J	120	21 U	28	19 U	54	84	19 U	20 U	19 U
Dibenzo(a,h)anthracene	5.9 UJ	28	6.1 U	5.8 UJ	5.8 UJ	6.5 J	6.5 J	5.9 U	6.1 UJ	6.0 U
Dibenzofuran	20 U	14 J	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Fluoranthene	41	160	12 J	62	19 U	80	140	19 U	20 U	19 U
Fluorene	20 U	19 J	21 U	10 J	19 U	20 U	10 J	19 U	20 U	19 U
Indeno(1,2,3-cd)pyrene	20 U	46	21 U	19 U	19 U	20	36	19 U	20 U	19 U
Naphthalene	20 U	32	21 U	19 U	19 U	17 J	16 J	19 U	20 U	19 U
Phenanthrene	42	84	21 U	36	19 U	41	36	19 U	20 U	19 U
Pyrene	37 U	410	65	66	19 U	210	250	19 U	20 U	19 U
Total HPAHs	103 J	1,340	117 J	237 J	19 U	660 J	920 J	19 U	20 U	19 U
Total LPAHs	42	207 J	21 U	58 J	19 U	81 J	84 J	19 U	20 U	19 U
cPAHs - mammal - half DL	19 J	200	18 J	27 J	14 UJ	98 J	130 J	14 U	14 UJ	14 U
Total PAHs	145 J	1,540 J	117 J	295 J	19 U	740 J	1,010 J	19 U	20 U	19 U
Phthalates										
Bis(2-ethylhexyl)phthalate	23 U	1,700	270 U	31	24	250	230	20	36	22
Butyl benzyl phthalate	15 U	28 J	15 U	14 U	14 U	18	15 U	15 U	15 U	15 U
Diethyl phthalate	86	22 U	21 U	19 U	19 U	11 J	20 U	19 U	20 U	10 J
Dimethyl phthalate	15 U	15 U	15 U	14 U	14 U	15 U	15 U	15 U	15 U	15 U
Di-n-butyl phthalate	20 U	22 U	20 J	19 U	19 U	36	23	16 J	13 J	27
Di-n-octyl phthalate	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Other SVOCs										

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202-0-2	EW10-SC37-2-3.9	EW10-SC202-2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
1,2,4-Trichlorobenzene	5.9 U	5.9 U	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
1,2-Dichlorobenzene	5.9 U	5.9 U	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
1,3-Dichlorobenzene	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
1,4-Dichlorobenzene	5.9 U	12	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
2,4,5-Trichlorophenol	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
2,4,6-Trichlorophenol	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
2,4-Dichlorophenol	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
2,4-Dimethylphenol	5.9 U	5.9 U	6.1 U	5.8 U	5.8 U	5.9 UJ	5.9 UJ	5.9 UJ	6.1 UJ	6.0 UJ
2,4-Dinitrophenol	200 U	220 U	210 U	190 U	190 U	200 U	200 U	190 U	200 U	190 U
2,4-Dinitrotoluene	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
2,6-Dinitrotoluene	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
2-Chlorophenol	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
2-Methylphenol	5.9 U	14 J	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
2-Nitroaniline	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
2-Nitrophenol	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
3,3'-Dichlorobenzidine	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
3-Nitroaniline	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
4,6-Dinitro-o-cresol	200 U	220 U	210 U	190 U	190 U	200 U	200 U	190 U	200 U	190 U
4-Bromophenyl phenyl ether	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
4-Chloro-3-methylphenol	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
4-Chloroaniline	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
4-Chlorophenyl phenyl ether	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
4-Methylphenol	20 U	14 J	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
4-Nitroaniline	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
4-Nitrophenol	98 U	110 U	100 U	97 U	96 U	98 U	98 U	97 U	98 U	96 U
Aniline	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202 0-2	EW10-SC37-2-3.9	EW10-SC202 2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
Benzoic acid	200 U	220 U	210 U	190 U	190 U	200 U	200 U	190 U	200 U	190 U
Benzyl alcohol	20 U	22 U	21 U	19 U	19 U	20 U	20 UJ	19 U	20 UJ	19 U
bis(2-chloroethoxy)methane	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
bis(2-chloroethyl)ether	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
bis(2-chloroisopropyl)ether	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Carbazole	20 U	15 J	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Hexachlorobenzene	5.9 U	5.9 U	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
Hexachlorobutadiene	5.9 U	5.9 U	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
Hexachlorocyclopentadiene	98 UJ	110 U	100 U	97 UJ	96 UJ	98 U	98 U	97 U	98 U	96 U
Hexachloroethane	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Isophorone	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
n-Nitroso-di-n-propylamine	29 U	29 U	30 U	29 U	29 U	29 U	30 U	30 U	30 U	30 U
n-Nitrosodimethylamine	29 U	29 U	30 U	29 U	29 U	29 U	30 U	30 U	30 U	30 U
n-Nitrosodiphenylamine	5.9 U	5.9 U	6.1 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	6.1 U	6.0 U
Nitrobenzene	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
Pentachlorophenol	29 U	29 U	30 U	29 U	29 U	29 U	30 U	30 U	30 U	30 U
Phenol	20 U	22 U	21 U	19 U	19 U	20 U	20 U	19 U	20 U	19 U
PCBs										
Aroclor-1016	4.0 U	19 U	20 U	19 U	3.9 U	39 U	39 U	3.9 U	3.9 U	3.9 U
Aroclor-1221	4.0 U	19 U	20 U	19 U	3.9 U	39 U	39 U	3.9 U	3.9 U	3.9 U
Aroclor-1232	4.0 U	19 U	20 U	19 U	3.9 U	39 U	39 U	3.9 U	3.9 U	3.9 U
Aroclor-1242	4.0 U	200	29	19 U	3.9 U	39 U	39 U	3.9 U	3.9 U	3.9 U
Aroclor-1248	4.0 U	19 U	20 U	29 U	3.9 U	130	140	3.9 U	3.9 U	3.9 U
Aroclor-1254	4.0 U	280	33 J	48 J	3.9 U	150	170	3.9 U	3.9 U	3.9 U
Aroclor-1260	4.0 U	260	30	54	3.9 U	120	130	3.9 U	3.9 U	3.9 U
Aroclor-1262	4.0 U	19 U	20 U	19 U	3.9 U	39 U	39 U	3.9 U	3.9 U	3.9 U

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202 0-2	EW10-SC37-2-3.9	EW10-SC202 2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
Aroclor-1268	4.0 U	19 U	20 U	19 U	3.9 U	39 U	39 U	3.9 U	3.9 U	3.9 U
Total PCBs	4.0 U	740	92 J	102 J	3.9 U	400	440	3.9 U	3.9 U	3.9 U
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202 0-2	EW10-SC37-2-3.9	EW10-SC202 2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1	0.7	0.5	0.2	0.1 U	0.1 U	0.2	0.1 U	0.1 U	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	0.1	0.5	0.1	0.3	0.1 U	0.1	0.1	0.1 U	0.1 U	0.1 U
Fractional % phi 0-1 (500-1000 microns)	0.4	1.4	0.3	0.7	0.2	0.3	0.5	0.1	0.2	0.1
Fractional % phi 1-2 (250-500 microns)	8.5	9.3	1.7	9.5	1.9	3.1	3.5	0.6	0.5	0.5
Fractional % phi 2-3 (125-250 microns)	29.1	15.6	12.8	15.7	31.0	20.4	22.4	18.5	16.4	3.3
Fractional % phi 3-4 (62.5-125 microns)	17.8	17.1	29.1	17.1	36.5	25.1	28.3	38.7	37.2	13.9
Fractional % phi 4-5 (31.2-62.5 microns)	13.3	13.4	26.4	18.8	15.0	18.5	17.1	22.3	24.7	27.5
Fractional % phi 5-6 (15.6-31.2 microns)	6.6	9.3	9.3	13.5	7.0	9.9	7.6	6.8	8.8	19.6
Fractional % phi 6-7 (7.8-15.6 microns)	5.0	8.9	6.9	7.6	3.3	7.3	6.4	4.5	3.7	13.7
Fractional % phi 7-8 (3.9-7.8 microns)	5.8	6.2	3.7	4.9	1.7	4.9	3.9	2.7	3.2	7.7
Fractional % phi 8-9 (1.95-3.9 microns)	3.7	4.5	2.4	4.1	1.1	3.4	3.2	1.8	1.7	4.9
Fractional % phi 9-10 (0.98-1.95 microns)	2.7	3.6	1.6	2.8	1.1	2.4	2.4	1.1	1.2	3.3
Fractional % phi 10+ (<0.98 micron)	6.7	9.5	5.1	4.7	1.3	4.7	4.3	2.9	2.3	5.4

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC34	EW10-SC35		EW10-SC36		EW10-SC37				EW10
	EW10-SC34-2.4-3.9	EW10-SC35-0-2	EW10-SC35-2-4	EW10-SC36-0.9-3	EW10-SC36-3-5	EW10-SC37-0-2	EW10-SC202-0-2	EW10-SC37-2-3.9	EW10-SC202-2-3.9	EW10-SC38-0-0.8
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	FD	N	FD	N
	2.4-3.9 ft	0-2 ft	2-4 ft	0.9-3 ft	3-5 ft	0-2 ft	0-2 ft	2-3.9 ft	2-3.9 ft	0-0.8 ft
Total gravel	0.1	0.7	0.5	0.2	0.1 U	0.1 U	0.2	0.1 U	0.1 U	0.1 U
Total sand	55.9	43.9	44.0	43.3	69.6	49.0	54.8	57.9	54.3	17.8
Total silt	30.7	37.8	46.3	44.8	27.0	40.6	35.0	36.3	40.4	68.5
Total clay	13.1	17.6	9.1	11.6	3.5	10.5	9.9	5.8	5.2	13.6
Total fines (percent silt+clay)	43.8	55.4	55.4	56.4	30.5	51.1	44.9	42.1	45.6	82.1
Conventionals										
Total organic carbon (TOC)	0.791	1.34	0.302	0.577	0.274	0.485	0.783	0.210	0.246	0.847
Total solids	73.10	62.90	75.60	75.80	76.20	71.10	72.40	75.30	74.90	73.80

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
Metals										
Antimony	7 UJ	7 UJ	7 UJ	8 UJ	8 UJ	na	na	7 UJ	6 UJ	9 UJ
Arsenic	2.4	4.5	2.4	11.6	9.2	na	na	2.9	2.7	14.7
Cadmium	0.3 U	0.4	0.3 U	1.9	1.2	na	na	0.3 U	0.3 U	4.0
Chromium	12.5	19.9	13.2	52.6	49.3	na	na	12.6	11.2	80.6
Cobalt	4.2	5.6	4.6	11.1	12.9	na	na	4.5	4.3	11.6
Copper	16.2	31.8 J	21.1 J	87.3 J	67.2 J	na	na	15.7	14.0	135 J
Lead	3 U	19	3 U	95	66	na	na	3 U	3 U	178
Mercury	0.03 U	0.11	0.03	0.82	0.57	0.03 U	0.03 U	0.02 U	0.03 U	0.83
Molybdenum	0.7 U	1.2	0.8	2.6	2.0	na	na	0.7	0.6 U	4.9
Nickel	9	13	9	39	47	na	na	9	8	42
Selenium	0.6 U	0.7 U	0.7 U	0.8 U	0.8 U	na	na	0.7 U	0.6 U	4 U
Silver	0.4 U	0.4 U	0.4 U	1.7	0.6	na	na	0.4 U	0.4 U	3.5
Thallium	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	na	na	0.3 U	0.2 U	0.4 U
Vanadium	43.1	47.7	45.8	72.1	74.5	na	na	44.2	42.7	75.4
Zinc	23	50 J	25 J	170 J	126 J	na	na	27	24	235 J
Organometals										
Monobutyltin as ion	na	na	na	3.7 U	3.7 U	na	na	na	na	na
Dibutyltin as ion	na	na	na	5.2 U	5.2 U	na	na	na	na	na
Tributyltin as ion	na	na	na	3.5 U	3.5 U	na	na	na	na	na
PAHs										
1-Methylnaphthalene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
2-Chloronaphthalene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
2-Methylnaphthalene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Acenaphthene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Acenaphthylene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
Anthracene	20 U	20 U	19 U	51	14 J	na	na	19 U	19 U	41 J
Benzo(a)anthracene	20 U	13 J	19 U	75	23	na	na	19 U	19 U	67
Benzo(a)pyrene	20 U	37	19 U	93	26	na	na	19 U	19 U	80
Benzo(g,h,i)perylene	20 U	17 J	19 U	51	15 J	na	na	19 U	19 U	37 J
Total benzofluoranthenes	20 U	78	19 U	160	44	na	na	19 U	19 U	150
Chrysene	20 U	19 J	19 U	110	34	na	na	19 U	19 U	95
Dibenzo(a,h)anthracene	6.1 U	6.1 UJ	5.8 UJ	8.5 J	7.3 J	na	na	6.1 U	5.9 U	27 J
Dibenzofuran	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Fluoranthene	20 U	25	19 U	150	57	na	na	19 U	19 U	200
Fluorene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Indeno(1,2,3-cd)pyrene	20 U	16 J	19 U	43 J	13 J	na	na	19 U	19 U	33 J
Naphthalene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Phenanthrene	20 U	16 J	19 U	63	33	na	na	19 U	19 U	43 J
Pyrene	9.8 J	150	19 U	240	86	na	na	19 U	19 U	230
Total HPAHs	9.8 J	360 J	19 U	930 J	305 J	na	na	19 U	19 U	920 J
Total LPAHs	20 U	16 J	19 U	114	47 J	na	na	19 U	19 U	84 J
cPAHs - mammal - half DL	14 U	49 J	14 UJ	130 J	37 J	na	na	14 U	14 U	120 J
Total PAHs	9.8 J	370 J	19 U	1,040 J	352 J	na	na	19 U	19 U	1,000 J
Phthalates										
Bis(2-ethylhexyl)phthalate	20	85	30	230	24	na	na	200 U	200 U	450
Butyl benzyl phthalate	15 U	15 U	15 U	21	15 U	na	na	15 U	15 U	42 J
Diethyl phthalate	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Dimethyl phthalate	15 U	15 U	15 U	15 U	15 U	na	na	15 U	15 U	15 UJ
Di-n-butyl phthalate	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Di-n-octyl phthalate	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Other SVOCs										

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
1,2,4-Trichlorobenzene	6.1 U	6.1 U	5.8 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
1,2-Dichlorobenzene	6.1 U	6.1 U	5.8 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
1,3-Dichlorobenzene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
1,4-Dichlorobenzene	6.1 U	6.1 U	5.8 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	9.5
2,4,5-Trichlorophenol	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
2,4,6-Trichlorophenol	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
2,4-Dichlorophenol	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
2,4-Dimethylphenol	6.1 UJ	6.1 U	5.8 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
2,4-Dinitrophenol	200 U	200 U	190 U	440 U	200 U	na	na	190 U	190 U	530 U
2,4-Dinitrotoluene	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
2,6-Dinitrotoluene	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
2-Chlorophenol	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
2-Methylphenol	6.1 U	6.1 U	5.8 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
2-Nitroaniline	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
2-Nitrophenol	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
3,3'-Dichlorobenzidine	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
3-Nitroaniline	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
4,6-Dinitro-o-cresol	200 U	200 U	190 U	440 U	200 U	na	na	190 U	190 U	530 U
4-Bromophenyl phenyl ether	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
4-Chloro-3-methylphenol	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
4-Chloroaniline	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
4-Chlorophenyl phenyl ether	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
4-Methylphenol	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
4-Nitroaniline	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
4-Nitrophenol	98 U	97 U	96 U	220 U	98 U	na	na	97 U	95 U	260 U
Aniline	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
Benzoic acid	200 U	200 U	190 U	440 U	200 U	na	na	190 U	190 U	530 UJ
Benzyl alcohol	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	R
bis(2-chloroethoxy)methane	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
bis(2-chloroethyl)ether	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
bis(2-chloroisopropyl)ether	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Carbazole	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Hexachlorobenzene	6.1 U	1.4 U	0.98 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
Hexachlorobutadiene	6.1 U	1.4 U	0.98 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
Hexachlorocyclopentadiene	98 U	97 UJ	96 UJ	220 UJ	98 UJ	na	na	97 U	95 U	260 UJ
Hexachloroethane	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Isophorone	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
n-Nitroso-di-n-propylamine	30 U	31 U	29 U	30 U	30 U	na	na	30 U	30 U	30 U
n-Nitrosodimethylamine	30 U	31 U	29 U	30 U	30 U	na	na	30 U	30 U	30 U
n-Nitrosodiphenylamine	6.1 U	6.1 U	5.8 U	6.1 U	6.1 U	na	na	6.1 U	5.9 U	6.0 U
Nitrobenzene	20 U	20 U	19 U	44 U	20 U	na	na	19 U	19 U	53 U
Pentachlorophenol	30 U	31 U	29 U	30 U	30 UJ	na	na	30 U	30 U	30 UJ
Phenol	20 U	16 J	19 U	44 U	20 U	na	na	19 U	19 U	53 U
PCBs										
Aroclor-1016	3.8 U	27 U	3.9 U	40 U	33 U	3.9 U	na	3.9 U	3.8 U	62 U
Aroclor-1221	3.8 U	27 U	3.9 U	40 U	33 U	3.9 U	na	3.9 U	3.8 U	62 U
Aroclor-1232	3.8 U	27 U	3.9 U	40 U	33 U	3.9 U	na	3.9 U	3.8 U	62 U
Aroclor-1242	3.8 U	44	3.9 U	73	33 U	3.9 U	na	3.9 U	3.8 U	62 U
Aroclor-1248	3.8 U	27 U	3.9 U	40 U	33 U	3.9 U	na	3.9 U	3.8 U	460
Aroclor-1254	3.8 U	72	3.9 U	190	58	3.9 U	na	3.9 U	3.8 U	550
Aroclor-1260	3.8 U	60	3.9 U	230	72	3.9 U	na	3.9 U	3.8 U	330
Aroclor-1262	3.8 U	27 U	3.9 U	40 U	33 U	3.9 U	na	3.9 U	3.8 U	62 U

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
Aroclor-1268	3.8 U	27 U	3.9 U	40 U	33 U	3.9 U	na	3.9 U	3.8 U	62 U
Total PCBs	3.8 U	176	3.9 U	490	130	3.9 U	na	3.9 U	3.8 U	1,340
Pesticides										
2,4'-DDD	na	2.7 U	2.0 U	na	na	na	na	na	na	na
2,4'-DDE	na	2.7 U	2.0 U	na	na	na	na	na	na	na
2,4'-DDT	na	2.7 U	2.0 U	na	na	na	na	na	na	na
4,4'-DDD	na	2.7 U	2.0 U	na	na	na	na	na	na	na
4,4'-DDE	na	2.7 U	2.0 U	na	na	na	na	na	na	na
4,4'-DDT	na	15 U	2.0 U	na	na	na	na	na	na	na
Total DDTs	na	15 U	2.0 U	na	na	na	na	na	na	na
Aldrin	na	1.4 U	0.98 U	na	na	na	na	na	na	na
Dieldrin	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	2.7 U	2.0 U	na	na	na	na	na	na	na
alpha-BHC	na	1.4 U	0.98 U	na	na	na	na	na	na	na
beta-BHC	na	1.4 U	0.98 U	na	na	na	na	na	na	na
gamma-BHC	na	1.4 U	0.98 U	na	na	na	na	na	na	na
delta-BHC	na	1.4 U	0.98 U	na	na	na	na	na	na	na
alpha-Chlordane	na	1.4 U	0.98 U	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	1.4 U	0.98 U	na	na	na	na	na	na	na
Total chlordane	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	1.4 U	0.98 U	na	na	na	na	na	na	na
beta-Endosulfan	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Endosulfan sulfate	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Endrin	na	2.7 U	2.0 U	na	na	na	na	na	na	na

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
Endrin aldehyde	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Endrin ketone	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Heptachlor	na	1.4 U	0.98 U	na	na	na	na	na	na	na
Heptachlor epoxide	na	1.4 U	0.98 U	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	14 U	9.8 U	na	na	na	na	na	na	na
Mirex	na	2.7 U	2.0 U	na	na	na	na	na	na	na
cis-Nonachlor	na	2.7 U	2.0 U	na	na	na	na	na	na	na
trans-Nonachlor	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	2.7 U	2.0 U	na	na	na	na	na	na	na
Toxaphene	na	140 U	98 U	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	na	na	0.1	0.1	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	0.1 U	0.1	0.1	0.3	0.2	na	na	0.2	0.1	0.2
Fractional % phi 0-1 (500-1000 microns)	0.1	0.2	0.1	0.6	0.4	na	na	0.9	2.8	0.6
Fractional % phi 1-2 (250-500 microns)	1.4	2.1	0.2	2.1	2.0	na	na	5.2	28.4	1.5
Fractional % phi 2-3 (125-250 microns)	14.6	13.5	3.3	9.7	6.7	na	na	36.5	21.3	2.6
Fractional % phi 3-4 (62.5-125 microns)	35.4	27.3	25.4	6.8	5.5	na	na	27.3	15.5	5.2
Fractional % phi 4-5 (31.2-62.5 microns)	22.5	18.9	23.7	6.0	8.3	na	na	14.5	14.0	8.9
Fractional % phi 5-6 (15.6-31.2 microns)	10.3	13.9	21.7	14.0	10.9	na	na	5.6	6.8	15.5
Fractional % phi 6-7 (7.8-15.6 microns)	6.4	8.0	10.3	14.0	13.5	na	na	3.3	4.1	16.2
Fractional % phi 7-8 (3.9-7.8 microns)	3.3	4.5	5.0	13.3	14.4	na	na	1.9	2.1	14.3
Fractional % phi 8-9 (1.95-3.9 microns)	2.3	3.8	3.4	11.6	13.3	na	na	1.1	1.3	11.0
Fractional % phi 9-10 (0.98-1.95 microns)	1.2	2.5	2.2	7.5	9.1	na	na	0.7	0.9	7.9
Fractional % phi 10+ (<0.98 micron)	2.5	5.4	4.5	14.2	15.8	na	na	2.7	2.7	16.1

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC38	EW10-SC39		EW10-SC40				EW10-SC41		
	EW10-SC38-0.8-2	EW10-SC39-0-2	EW10-SC39-2-3.4	EW10-SC40-0-1	EW10-SC40-1-4	EW10-SC40-4-6.8	EW10-SC40-6.8-8	EW10-SC41-0-0.6	EW10-SC41-0.6-2	EW10-SC42-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0.8-2 ft	0-2 ft	2-3.4 ft	0-1 ft	1-4 ft	4-6.8 ft	6.8-8 ft	0-0.6 ft	0.6-2 ft	0-2 ft
Total gravel	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	na	na	0.1	0.1	0.1 U
Total sand	51.5	43.2	29.1	19.5	14.8	na	na	70.1	68.1	10.1
Total silt	42.5	45.3	60.7	47.3	47.1	na	na	25.3	27.0	54.9
Total clay	6.0	11.7	10.1	33.3	38.2	na	na	4.5	4.9	35.0
Total fines (percent silt+clay)	48.5	57.0	70.8	80.6	85.3	na	na	29.8	31.9	89.9
Conventionals										
Total organic carbon (TOC)	0.382	0.572	0.291	1.58	1.70	0.273	0.424	0.323	0.308	2.13
Total solids	74.20	71.00	74.20	59.40	43.80	76.47	73.60	72.90	75.90	51.97

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
Metals										
Antimony	9 UJ	na	na	na	7 UJ	7 UJ	na	na	6 UJ	6 UJ
Arsenic	21.2	na	na	na	9.9	5.0	na	na	2.6	2.8
Cadmium	4.1	na	na	na	1.1	0.6	na	na	0.2 U	0.3 U
Chromium	76.6	na	na	na	33.7	20.6	na	na	14.1	11.1
Cobalt	12.4	na	na	na	7.4	5.0	na	na	4.8	4.1
Copper	152 J	na	na	na	57.5	33.4	na	na	17.2 J	11.8 J
Lead	188	na	na	na	63	31	na	na	2 U	3 U
Mercury	1.52	0.42	0.06	0.03 U	0.31	0.19	na	na	0.03 U	0.03 U
Molybdenum	6.0	na	na	na	2.5	3.2	na	na	1.0	0.7
Nickel	41	na	na	na	23	13	na	na	10	8
Selenium	1.2	na	na	na	0.7 U	0.7 U	na	na	0.6 U	0.7 U
Silver	4.2	na	na	na	1.1	0.8	na	na	0.4 U	0.4 U
Thallium	0.4	na	na	na	0.3 U	0.3 U	na	na	0.3 U	0.3 U
Vanadium	86.9	na	na	na	60.9	45.8	na	na	44.7	37.9
Zinc	286 J	na	na	na	111	81	na	na	25 J	20 J
Organometals										
Monobutyltin as ion	na	na	na	na	3.7 U	3.2 U	na	na	3.6 U	3.4 U
Dibutyltin as ion	na	na	na	na	14	4.5 U	na	na	5.0 UJ	4.9 UJ
Tributyltin as ion	na	na	na	na	110 J	3.0 U	na	na	3.4 U	3.3 U
PAHs										
1-Methylnaphthalene	59 U	na	na	na	13 J	24 J	na	na	20 U	19 U
2-Chloronaphthalene	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
2-Methylnaphthalene	59 U	na	na	na	16 J	34	na	na	20 U	19 U
Acenaphthene	59 U	na	na	na	20 J	75	na	na	20 U	19 U
Acenaphthylene	59 U	na	na	na	20 J	25 U	na	na	20 U	19 U

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
Anthracene	65	na	na	na	65	100	na	na	20 U	19 U
Benzo(a)anthracene	150	na	na	na	130	210	na	na	20 U	19 U
Benzo(a)pyrene	150	na	na	na	290	260	na	na	20 U	19 U
Benzo(g,h,i)perylene	78	na	na	na	63	60	na	na	20 U	19 U
Total benzofluoranthenes	280	na	na	na	640	480	na	na	20 U	19 U
Chrysene	230	na	na	na	190	260	na	na	20 U	19 U
Dibenzo(a,h)anthracene	34 J	na	na	na	35 J	11 J	na	na	6.1 UJ	6.0 UJ
Dibenzofuran	59 U	na	na	na	16 J	39	na	na	20 U	19 U
Fluoranthene	410	na	na	na	240	330	na	na	20 U	19 U
Fluorene	30 J	na	na	na	23	58	na	na	20 U	19 U
Indeno(1,2,3-cd)pyrene	69	na	na	na	64	61	na	na	20 U	19 U
Naphthalene	59 U	na	na	na	42	130	na	na	20 U	19 U
Phenanthrene	100	na	na	na	120	250	na	na	20 U	19 U
Pyrene	350	na	na	na	1,100	780	na	na	20 U	19 U
Total HPAHs	1,750 J	na	na	na	2,800 J	2,450 J	na	na	20 U	19 U
Total LPAHs	200 J	na	na	na	290 J	610	na	na	20 U	19 U
cPAHs - mammal - half DL	220 J	na	na	na	390 J	340 J	na	na	14 UJ	14 UJ
Total PAHs	1,950 J	na	na	na	3,000 J	3,070 J	na	na	20 U	19 U
Phthalates										
Bis(2-ethylhexyl)phthalate	640	na	na	na	300	270	na	na	16 J	15 J
Butyl benzyl phthalate	21	na	na	na	32	22	na	na	15 U	15 U
Diethyl phthalate	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
Dimethyl phthalate	15 U	na	na	na	15 U	15 U	na	na	15 U	15 U
Di-n-butyl phthalate	59 U	na	na	na	23 U	38	na	na	20 U	19 U
Di-n-octyl phthalate	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
Other SVOCs										

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
1,2,4-Trichlorobenzene	6.0 U	na	na	na	6.1 U	6.0 U	na	na	6.1 U	6.0 U
1,2-Dichlorobenzene	6.0 U	na	na	na	6.1 U	6.0 U	na	na	6.1 U	6.0 U
1,3-Dichlorobenzene	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
1,4-Dichlorobenzene	6.0 U	na	na	na	21	8.3	na	na	6.1 U	6.0 U
2,4,5-Trichlorophenol	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
2,4,6-Trichlorophenol	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
2,4-Dichlorophenol	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
2,4-Dimethylphenol	6.0 U	na	na	na	6.1 UJ	6.0 UJ	na	na	6.1 U	6.0 U
2,4-Dinitrophenol	590 U	na	na	na	230 U	250 U	na	na	200 U	190 U
2,4-Dinitrotoluene	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
2,6-Dinitrotoluene	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
2-Chlorophenol	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
2-Methylphenol	6.0 U	na	na	na	6.1 U	6.0 U	na	na	6.1 U	6.0 U
2-Nitroaniline	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
2-Nitrophenol	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
3,3'-Dichlorobenzidine	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
3-Nitroaniline	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
4,6-Dinitro-o-cresol	590 U	na	na	na	230 U	250 U	na	na	200 U	190 U
4-Bromophenyl phenyl ether	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
4-Chloro-3-methylphenol	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
4-Chloroaniline	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
4-Chlorophenyl phenyl ether	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
4-Methylphenol	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
4-Nitroaniline	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
4-Nitrophenol	300 U	na	na	na	110 U	120 U	na	na	99 U	96 U
Aniline	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
Benzoic acid	590 U	na	na	na	230 U	250 U	na	na	200 U	190 U
Benzyl alcohol	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
bis(2-chloroethoxy)methane	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
bis(2-chloroethyl)ether	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
bis(2-chloroisopropyl)ether	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
Carbazole	59 U	na	na	na	18 J	37	na	na	20 U	19 U
Hexachlorobenzene	6.0 U	na	na	na	6.1 U	6.0 U	na	na	6.1 U	6.0 U
Hexachlorobutadiene	6.0 U	na	na	na	6.1 U	6.0 U	na	na	6.1 U	6.0 U
Hexachlorocyclopentadiene	300 UJ	na	na	na	110 U	120 U	na	na	99 UJ	96 UJ
Hexachloroethane	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
Isophorone	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
n-Nitroso-di-n-propylamine	30 U	na	na	na	30 U	30 U	na	na	30 U	30 U
n-Nitrosodimethylamine	30 U	na	na	na	30 U	30 U	na	na	30 U	30 U
n-Nitrosodiphenylamine	16 U	na	na	na	6.1 U	12 U	na	na	6.1 U	6.0 U
Nitrobenzene	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
Pentachlorophenol	30 UJ	na	na	na	30 U	30 U	na	na	30 UJ	30 UJ
Phenol	59 U	na	na	na	23 U	25 U	na	na	20 U	19 U
PCBs										
Aroclor-1016	63 U	20 U	na	na	150 U	69 U	20 U	3.9 U	3.9 U	3.8 U
Aroclor-1221	63 U	20 U	na	na	150 U	69 U	20 U	3.9 U	3.9 U	3.8 U
Aroclor-1232	63 U	20 U	na	na	150 U	69 U	20 U	3.9 U	3.9 U	3.8 U
Aroclor-1242	63 U	20 U	na	na	150 U	69 U	20 U	3.9 U	3.9 U	3.8 U
Aroclor-1248	420	29 U	na	na	330	300	20 U	3.9 U	3.9 U	3.8 U
Aroclor-1254	630	68 U	na	na	510	440	20 U	3.9 U	3.9 U	3.8 U
Aroclor-1260	480	84	na	na	310	310	22	3.9 U	3.9 U	3.8 U
Aroclor-1262	63 U	20 U	na	na	150 U	69 U	20 U	3.9 U	3.9 U	3.8 U

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
Aroclor-1268	63 U	20 U	na	na	150 U	69 U	20 U	3.9 U	3.9 U	3.8 U
Total PCBs	1,530	84	na	na	1,150	1,050	22	3.9 U	3.9 U	3.8 U
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	1	na	na	na	1.6	0.2	na	na	0.1 U	0.1
Fractional % phi -1-0 (1000-2000 microns)	1.9	na	na	na	0.9	0.2	na	na	0.2	0.1
Fractional % phi 0-1 (500-1000 microns)	1.1	na	na	na	1.5	0.5	na	na	0.3	1.0
Fractional % phi 1-2 (250-500 microns)	1.5	na	na	na	7.5	6.3	na	na	4.2	26.9
Fractional % phi 2-3 (125-250 microns)	2.5	na	na	na	24.7	30.4	na	na	32.4	39.6
Fractional % phi 3-4 (62.5-125 microns)	3.3	na	na	na	16.8	25.7	na	na	30.6	14.4
Fractional % phi 4-5 (31.2-62.5 microns)	4.5	na	na	na	11.2	12.8	na	na	14.0	8.2
Fractional % phi 5-6 (15.6-31.2 microns)	12.9	na	na	na	6.3	7.1	na	na	5.6	3.4
Fractional % phi 6-7 (7.8-15.6 microns)	15.6	na	na	na	7.4	4.9	na	na	4.2	2.0
Fractional % phi 7-8 (3.9-7.8 microns)	16.1	na	na	na	6.2	3.6	na	na	2.6	1.3
Fractional % phi 8-9 (1.95-3.9 microns)	13.3	na	na	na	4.9	2.6	na	na	1.8	0.8
Fractional % phi 9-10 (0.98-1.95 microns)	8.8	na	na	na	3.7	1.8	na	na	1.4	0.7
Fractional % phi 10+ (<0.98 micron)	17.8	na	na	na	7.4	3.9	na	na	2.8	1.6

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC42				EW10-SC43				EW10-SC44	
	EW10-SC42-2-4	EW10-SC42-4-5.5	EW10-SC42-5.5-8	EW10-SC42-8-10	EW10-SC43-0-1.3	EW10-SC43-1.3-4	EW10-SC43-4-6	EW10-SC43-6-8	EW10-SC44-0-2	EW10-SC44-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	4-5.5 ft	5.5-8 ft	8-10 ft	0-1.3 ft	1.3-4 ft	4-6 ft	6-8 ft	0-2 ft	2-4 ft
Total gravel	1	na	na	na	1.6	0.2	na	na	0.1 U	0.1
Total sand	10.4	na	na	na	51.4	63.1	na	na	67.7	82.0
Total silt	49.0	na	na	na	31.1	28.4	na	na	26.4	14.9
Total clay	39.9	na	na	na	16.0	8.4	na	na	6.0	3.1
Total fines (percent silt+clay)	88.9	na	na	na	47.1	36.7	na	na	32.4	18.0
Conventionals										
Total organic carbon (TOC)	2.83	1.61	0.436	1.08	1.85	1.33	0.767	0.344	0.394	0.385
Total solids	53.70	64.40	74.90	75.80	66.10	70.80	79.00	76.00	76.40	75.30

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
Metals										
Antimony	6 UJ	7 UJ	7 UJ	7 UJ	9 UJ	7 UJ	na	na	8 UJ	8 UJ
Arsenic	2.0	2.6	3.8	2.7	14.3	8.0	na	na	12.9 J	23.3 J
Cadmium	0.2 U	0.3 U	0.3 U	0.3 U	2.7	1.1	na	na	2.1	5.5
Chromium	8.9	13.1	16.8	11.5	61.6	39.3	na	na	52.0	83.9
Cobalt	3.7	4.4	5.4	4.5	10.6	8.9	na	na	9.5	10.3
Copper	10.3	18.9	23.4	14.9	114 J	55.1 J	na	na	98.6 J	157 J
Lead	2 U	3 U	5	3 U	129	47	na	na	114 J	239 J
Mercury	0.02 U	0.03 U	0.06	0.03 U	0.64	0.48	0.03	0.03 U	0.49 J	1.40 J
Molybdenum	0.6 U	0.7 U	0.8	0.7 U	3.7	1.7	na	na	3.5	6.0
Nickel	7	9	13	9	36	29	na	na	30	38
Selenium	0.6 U	0.7 U	0.7 U	0.6 U	0.8 U	0.7 U	na	na	0.8 U	0.9 U
Silver	0.4 U	0.4 U	0.4 U	0.4 U	2.2	0.9	na	na	1.6	4.9
Thallium	0.2 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	na	na	0.3 U	0.4
Vanadium	36.6	47.6	49.7	41.7	69.9	61.3	na	na	62.9	72.9
Zinc	21	26	36	23	179 J	96 J	na	na	168	321
Organometals										
Monobutyltin as ion	na	na	3.7 U	3.6 U	4.0	3.5 U	na	na	na	na
Dibutyltin as ion	na	na	5.2 U	5.1 U	20	5.0 UJ	na	na	na	na
Tributyltin as ion	na	na	3.5 U	3.4 U	140	3.3 U	na	na	na	na
PAHs										
1-Methylnaphthalene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	19 J	99
2-Chloronaphthalene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
2-Methylnaphthalene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	27	75
Acenaphthene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	42	350
Acenaphthylene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	61	26 U

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
Anthracene	20 U	20 U	12 J	20 U	41	19 J	na	na	200	370
Benzo(a)anthracene	20 U	20 U	14 J	20 U	82	36	na	na	300	300
Benzo(a)pyrene	20 U	20 U	24	20 U	160	44	na	na	590	430
Benzo(g,h,i)perylene	20 U	12 J	20 U	20 U	74	25	na	na	150	170
Total benzofluoranthenes	20 U	20 J	50	20 U	280	78	na	na	1,100	880
Chrysene	20 U	20 U	19 J	20 U	130	50	na	na	510	760
Dibenzo(a,h)anthracene	5.9 U	11 J	6.1 U	6.1 U	39	6.0 UJ	na	na	100	65
Dibenzofuran	20 U	20 U	20 U	20 U	37 U	20 U	na	na	33	260
Fluoranthene	20 U	20 U	33	20 U	140	69	na	na	560	1,300
Fluorene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	58	370
Indeno(1,2,3-cd)pyrene	20 U	11 J	20 U	20 U	74	20	na	na	160	130
Naphthalene	20 U	20 U	12 J	20 U	37 U	20 U	na	na	70	260
Phenanthrene	20 U	20 U	25	20 U	75	30	na	na	230	570
Pyrene	20 U	20 U	89	20 U	260	120	na	na	1,200	1,400
Total HPAHs	20 U	54 J	229 J	20 U	1,240	440	na	na	4,700	5,400
Total LPAHs	20 U	20 U	49 J	20 U	116	49 J	na	na	660	1,920
cPAHs - mammal - half DL	14 U	19 J	33 J	14 U	220	59	na	na	790	590
Total PAHs	20 U	54 J	278 J	20 U	1,360	490 J	na	na	5,300	7,400
Phthalates										
Bis(2-ethylhexyl)phthalate	210 U	240 U	27	21	440	90	na	na	860	900
Butyl benzyl phthalate	15 U	15 U	15 U	15 U	37	15 U	na	na	28	22
Diethyl phthalate	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
Dimethyl phthalate	15 U	15 U	15 U	15 U	15 U	15 U	na	na	15 U	15 U
Di-n-butyl phthalate	20 U	46	27	20 U	37 U	20 U	na	na	24 U	26 U
Di-n-octyl phthalate	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
Other SVOCs										

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
1,2,4-Trichlorobenzene	5.9 U	5.9 U	6.1 U	6.1 U	5.9 U	6.0 U	na	na	6.1 U	6.1 U
1,2-Dichlorobenzene	5.9 U	5.9 U	6.1 U	6.1 U	5.9 U	6.0 U	na	na	6.1 U	6.1 U
1,3-Dichlorobenzene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
1,4-Dichlorobenzene	5.9 U	5.9 U	6.1 U	6.1 U	16	6.0 U	na	na	19 J	6.1 U
2,4,5-Trichlorophenol	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
2,4,6-Trichlorophenol	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
2,4-Dichlorophenol	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
2,4-Dimethylphenol	5.9 U	5.9 U	6.1 UJ	6.1 UJ	5.9 U	6.0 U	na	na	6.1 U	6.1 U
2,4-Dinitrophenol	200 U	200 U	200 U	200 U	370 U	200 U	na	na	240 U	260 U
2,4-Dinitrotoluene	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
2,6-Dinitrotoluene	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
2-Chlorophenol	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
2-Methylphenol	5.9 U	5.9 U	6.1 U	6.1 U	5.9 U	6.0 U	na	na	6.1 U	6.1 U
2-Nitroaniline	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
2-Nitrophenol	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
3,3'-Dichlorobenzidine	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
3-Nitroaniline	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
4,6-Dinitro-o-cresol	200 U	200 U	200 U	200 U	370 U	200 U	na	na	240 U	260 U
4-Bromophenyl phenyl ether	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
4-Chloro-3-methylphenol	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
4-Chloroaniline	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
4-Chlorophenyl phenyl ether	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
4-Methylphenol	20 U	20 U	20 U	20 U	37 U	20 U	na	na	20 J	53
4-Nitroaniline	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
4-Nitrophenol	99 U	99 U	98 U	98 U	180 U	98 U	na	na	120 U	130 U
Aniline	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
Benzoic acid	200 U	200 U	200 U	200 U	370 U	200 U	na	na	65 J	260 U
Benzyl alcohol	20 U	20 U	20 U	20 UJ	37 U	20 U	na	na	24 U	26 U
bis(2-chloroethoxy)methane	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
bis(2-chloroethyl)ether	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
bis(2-chloroisopropyl)ether	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
Carbazole	20 U	20 U	20 U	20 U	37 U	20 U	na	na	53	26 U
Hexachlorobenzene	5.9 U	5.9 U	6.1 U	6.1 U	5.9 U	6.0 U	na	na	6.1 U	6.1 U
Hexachlorobutadiene	5.9 U	5.9 U	6.1 U	6.1 U	5.9 U	6.0 U	na	na	6.1 U	6.1 U
Hexachlorocyclopentadiene	99 U	99 U	98 U	98 U	180 UJ	98 UJ	na	na	120 UJ	130 UJ
Hexachloroethane	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
Isophorone	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
n-Nitroso-di-n-propylamine	29 U	30 U	30 U	30 U	30 U	30 U	na	na	30 U	30 U
n-Nitrosodimethylamine	29 U	30 U	30 U	30 U	30 U	30 U	na	na	30 U	30 U
n-Nitrosodiphenylamine	5.9 U	5.9 U	6.1 U	6.1 U	5.9 U	6.0 U	na	na	6.1 U	6.1 U
Nitrobenzene	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
Pentachlorophenol	29 U	30 U	30 U	30 U	30 UJ	30 UJ	na	na	30 U	30 U
Phenol	20 U	20 U	20 U	20 U	37 U	20 U	na	na	24 U	26 U
PCBs										
Aroclor-1016	3.9 U	4.0 U	4.0 U	3.9 U	170 U	29 U	3.9 U	na	33 U	99 U
Aroclor-1221	3.9 U	4.0 U	4.0 U	3.9 U	170 U	29 U	3.9 U	na	33 U	99 U
Aroclor-1232	3.9 U	4.0 U	4.0 U	3.9 U	170 U	29 U	3.9 U	na	33 U	99 U
Aroclor-1242	3.9 U	4.0 U	4.0 U	3.9 U	390	45	3.9 U	na	33 U	99 U
Aroclor-1248	3.9 U	4.0 U	9.9	3.9 U	170 U	29 U	3.9 U	na	390	960
Aroclor-1254	3.9 U	4.0 U	16	3.9 U	1,100	71 J	4.5	na	640	1,200
Aroclor-1260	3.9 U	4.0 U	24	3.9 U	2,300	68	5.5	na	680	1,300
Aroclor-1262	3.9 U	4.0 U	4.0 U	3.9 U	170 U	29 U	3.9 U	na	33 U	99 U

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
Aroclor-1268	3.9 U	4.0 U	4.0 U	3.9 U	170 U	29 U	3.9 U	na	33 U	99 U
Total PCBs	3.9 U	4.0 U	50	3.9 U	3,800	184 J	10.0	na	1,710	3,500
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.5	0.1 U	0.3	0.2	0.1 U	0.4	na	na	0.2	0.4
Fractional % phi -1-0 (1000-2000 microns)	0.4	0.2	0.5	0.3	0.3	0.3	na	na	0.2	0.3
Fractional % phi 0-1 (500-1000 microns)	2.1	0.5	0.6	1.4	0.6	0.9	na	na	0.4	0.7
Fractional % phi 1-2 (250-500 microns)	39.1	1.6	2.9	15.1	3.0	11.7	na	na	3.2	8.4
Fractional % phi 2-3 (125-250 microns)	34.5	9.6	22.4	35.0	10.4	18.1	na	na	12.1	13.5
Fractional % phi 3-4 (62.5-125 microns)	13.7	30.5	23.8	26.3	8.9	11.4	na	na	13.0	7.1
Fractional % phi 4-5 (31.2-62.5 microns)	3.6	31.3	17.0	10.1	7.5	10.2	na	na	12.6	5.2
Fractional % phi 5-6 (15.6-31.2 microns)	1.8	10.1	9.6	3.8	14.9	6.7	na	na	11.3	10.1
Fractional % phi 6-7 (7.8-15.6 microns)	1.2	5.7	8.0	2.4	13.5	8.5	na	na	11.0	10.4
Fractional % phi 7-8 (3.9-7.8 microns)	0.8	3.2	4.9	1.7	12.4	8.9	na	na	9.1	11.7
Fractional % phi 8-9 (1.95-3.9 microns)	0.5	2.0	3.1	1.3	9.1	7.9	na	na	8.4	10.2
Fractional % phi 9-10 (0.98-1.95 microns)	0.3	1.4	2.6	0.6	6.6	5.2	na	na	6.0	7.2
Fractional % phi 10+ (<0.98 micron)	1.4	3.9	4.3	1.7	12.7	9.7	na	na	12.5	14.8

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC45		EW10-SC46		EW10-SC47				EW10	
	EW10-SC45-0-1	EW10-SC45-1-1.7	EW10-SC46-0-2.3	EW10-SC46-2.3-4	EW10-SC47-0-2	EW10-SC47-2-3.6	EW10-SC47-3.6-6	EW10-SC47-6-8	EW10-SC48-0-2	EW10-SC48-2-4.7
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-1.7 ft	0-2.3 ft	2.3-4 ft	0-2 ft	2-3.6 ft	3.6-6 ft	6-8 ft	0-2 ft	2-4.7 ft
Total gravel	0.5	0.1 U	0.3	0.2	0.1 U	0.4	na	na	0.2	0.4
Total sand	89.8	42.4	50.2	78.1	23.2	42.4	na	na	28.9	30.0
Total silt	7.4	50.3	39.5	18.0	48.3	34.3	na	na	44.0	37.4
Total clay	2.2	7.3	10.0	3.6	28.4	22.8	na	na	26.9	32.2
Total fines (percent silt+clay)	9.6	57.6	49.5	21.6	76.7	57.1	na	na	70.9	69.6
Conventionals										
Total organic carbon (TOC)	0.532	0.355	0.754	0.647	1.61	1.06	0.749	0.474	1.60	2.82
Total solids	79.80	71.40	71.50	72.60	57.00	65.90	75.40	75.10	59.30	56.50

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
Metals										
Antimony	na	na	8 UJ	6 UJ	8 UJ	7 UJ	6 UJ	7 UJ	8 UJ	7 UJ
Arsenic	na	na	11.1	3.4	22.2 J	4.7 J	3.3	3.4	14.9 J	5.7 J
Cadmium	2.0	na	1.4	0.3 U	2.8	0.3 U	0.3 U	0.3 U	4.2	0.3
Chromium	na	na	50.2	16.7	37.5	18.3	13.8	14.6	116	14.5
Cobalt	na	na	10.8	5.2	9.9	6.3	4.8	5.1	10.8	5.3
Copper	na	na	82.2 J	22.0 J	148 J	22.8 J	21.6	20.5	145 J	21.9 J
Lead	na	na	74	6	1,450 J	9 J	3 U	3 U	229 J	164 J
Mercury	0.76	0.03	0.54	0.08	2.09 J	0.11 J	0.02 U	0.03 U	0.64 J	0.08 J
Molybdenum	na	na	2.5	0.9	3.2	0.9	0.6 U	0.7 U	5.9	2.1
Nickel	na	na	37	12	55	15	9	10	46	10
Selenium	na	na	0.8 U	0.6 U	0.7 U	0.7 U	0.7 U	0.7 U	0.8 U	0.7 U
Silver	na	na	1.2	0.4 U	0.9	0.4 U	0.4 U	0.4 U	3.8	0.4 U
Thallium	na	na	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Vanadium	na	na	67.9	46.0	70.5	48.2	48.6	50.1	73.0	47.1
Zinc	na	na	125 J	31 J	1,020	37	27	28	280	45
Organometals										
Monobutyltin as ion	na	na	3.5 U	3.5 U	3.4 U	3.4 U	3.6 U	3.8 U	na	na
Dibutyltin as ion	na	na	5.0 U	5.0 UJ	5.9	4.8 U	5.0 U	5.4 U	na	na
Tributyltin as ion	na	na	19	3.4 U	66 J	3.2 U	3.4 U	3.6 U	na	na
PAHs										
1-Methylnaphthalene	na	na	19 U	20 U	36	20 U	19 U	20 U	25 J	33
2-Chloronaphthalene	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
2-Methylnaphthalene	na	na	19 U	20 U	47	20 U	19 U	20 U	37	72
Acenaphthene	na	na	19 U	20 U	51	20 U	19 U	20 U	44	82
Acenaphthylene	na	na	10 J	20 U	82	20 U	19 U	20 U	80	24 U

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
Anthracene	na	na	21	20 U	220	26	19 U	20 U	310	23 J
Benzo(a)anthracene	na	na	37	20 U	470	22	19 U	20 U	1,100	24
Benzo(a)pyrene	na	na	84	10 J	850	19 J	19 U	20 U	1,400	83
Benzo(g,h,i)perylene	na	na	38	20 U	370 J	20 U	19 U	20 U	330	19 J
Total benzofluoranthenes	na	na	150	18 J	1,200	32 J	19 U	20 U	2,600	160
Chrysene	na	na	58	20 U	860 J	24	19 U	20 U	590	36
Dibenzo(a,h)anthracene	na	na	17 J	6.0 U	170	6.0 U	6.0 U	6.1 U	200	6.8
Dibenzofuran	na	na	19 U	20 U	44	20 U	19 U	20 U	34	55
Fluoranthene	na	na	67	11 J	920	66	19 U	20 U	640	69
Fluorene	na	na	19 U	20 U	85	11 J	19 U	20 U	54	30
Indeno(1,2,3-cd)pyrene	na	na	37	20 U	330	20 U	19 U	20 U	310	20 J
Naphthalene	na	na	10 J	20 U	130	17 J	19 U	20 U	59	120
Phenanthrene	na	na	45	20 U	400	28	19 U	20 U	340	43
Pyrene	na	na	180	20	1,800	85	19 U	20 U	3,700	280
Total HPAHs	na	na	670 J	59 J	7,000 J	248 J	19 U	20 U	10,900	700 J
Total LPAHs	na	na	86 J	20 U	970	82 J	19 U	20 U	890	300 J
cPAHs - mammal - half DL	na	na	110 J	15 J	1,100 J	27 J	14 U	14 U	1,900	110 J
Total PAHs	na	na	750 J	59 J	7,900 J	330 J	19 U	20 U	11,800	996 J
Phthalates										
Bis(2-ethylhexyl)phthalate	na	na	2,000	17 J	170	21	37 U	34 U	2,000	35
Butyl benzyl phthalate	na	na	17	15 U	15 U	15 U	15 U	15 U	86	16 U
Diethyl phthalate	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
Dimethyl phthalate	na	na	15 U	15 U	15 U	15 U	15 U	15 U	17	16 U
Di-n-butyl phthalate	na	na	19 U	20 U	26 U	20 U	19 U	10 J	26 U	24 U
Di-n-octyl phthalate	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
Other SVOCs										

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
1,2,4-Trichlorobenzene	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
1,2-Dichlorobenzene	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
1,3-Dichlorobenzene	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
1,4-Dichlorobenzene	na	na	21	6.0 U	13 J	6.0 U	6.0 U	6.1 U	7.2	6.2 U
2,4,5-Trichlorophenol	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
2,4,6-Trichlorophenol	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
2,4-Dichlorophenol	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
2,4-Dimethylphenol	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
2,4-Dinitrophenol	na	na	190 U	200 U	260 U	200 U	190 U	200 U	260 U	240 U
2,4-Dinitrotoluene	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
2,6-Dinitrotoluene	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
2-Chlorophenol	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
2-Methylphenol	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
2-Nitroaniline	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
2-Nitrophenol	na	na	97 U	98 U	130 U	100 U	97 UJ	98 UJ	130 U	120 U
3,3'-Dichlorobenzidine	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
3-Nitroaniline	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
4,6-Dinitro-o-cresol	na	na	190 U	200 U	260 U	200 U	190 U	200 U	260 U	240 U
4-Bromophenyl phenyl ether	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
4-Chloro-3-methylphenol	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
4-Chloroaniline	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
4-Chlorophenyl phenyl ether	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
4-Methylphenol	na	na	14 J	20 U	32	20 U	19 U	20 U	37	24 U
4-Nitroaniline	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
4-Nitrophenol	na	na	97 U	98 U	130 U	100 U	97 U	98 U	130 U	120 U
Aniline	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
Benzoic acid	na	na	190 U	200 U	260 U	200 U	190 U	200 U	260 U	240 U
Benzyl alcohol	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
bis(2-chloroethoxy)methane	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
bis(2-chloroethyl)ether	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
bis(2-chloroisopropyl)ether	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
Carbazole	na	na	19 U	20 U	73	20 U	19 U	20 U	75	12 J
Hexachlorobenzene	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
Hexachlorobutadiene	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
Hexachlorocyclopentadiene	na	na	97 UJ	98 UJ	R	100 UJ	97 UJ	98 UJ	130 UJ	120 UJ
Hexachloroethane	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
Isophorone	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
n-Nitroso-di-n-propylamine	na	na	30 U	30 U	30 U	30 U	30 U	31 U	30 U	31 U
n-Nitrosodimethylamine	na	na	30 UJ	30 UJ	30 U	30 U	30 U	31 U	30 U	31 U
n-Nitrosodiphenylamine	na	na	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.1 U	6.0 U	6.2 U
Nitrobenzene	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
Pentachlorophenol	na	na	30 U	30 U	30 U	30 U	30 UJ	31 UJ	30 UJ	31 U
Phenol	na	na	19 U	20 U	26 U	20 U	19 U	20 U	26 U	24 U
PCBs										
Aroclor-1016	20 U	20 U	41 U	3.9 U	20 U	4.0 U	3.9 U	3.9 U	33 U	20 U
Aroclor-1221	20 U	20 U	41 U	3.9 U	20 U	4.0 U	3.9 U	3.9 U	33 U	20 U
Aroclor-1232	20 U	20 U	41 U	4.9 U	20 U	4.0 U	3.9 U	3.9 U	33 U	20 U
Aroclor-1242	20 U	20 U	69	3.9 U	20 U	4.0 U	3.9 U	3.9 U	33 U	20 U
Aroclor-1248	20 U	20 U	41 U	3.9 U	62	4.0 U	3.9 U	3.9 U	1,200	35
Aroclor-1254	110	20 U	210	6.7	140	4.0 U	3.9 U	3.9 U	1,300	72
Aroclor-1260	280	20 U	230	7.5	240 J	4.0 U	3.9 U	3.9 U	880	70
Aroclor-1262	20 U	20 U	41 U	3.9 U	20 U	4.0 U	3.9 U	3.9 U	33 U	20 U

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
Aroclor-1268	20 U	20 U	41 U	3.9 U	20 U	4.0 U	3.9 U	3.9 U	33 U	20 U
Total PCBs	390	20 U	510	14.2	440 J	4.0 U	3.9 U	3.9 U	3,400	177
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	na	na	0.3	0.4	3.9	0.3	0.1 U	0.1 U	2.5	0.8
Fractional % phi -1-0 (1000-2000 microns)	na	na	0.4	0.2	1.0	0.5	0.1	0.1	1.0	0.9
Fractional % phi 0-1 (500-1000 microns)	na	na	0.9	0.4	1.7	1.1	0.3	0.2	0.8	1.8
Fractional % phi 1-2 (250-500 microns)	na	na	3.0	6.6	12.0	17.1	0.7	0.5	4.4	17.5
Fractional % phi 2-3 (125-250 microns)	na	na	6.7	25.4	14.8	24.2	10.8	9.6	9.2	28.2
Fractional % phi 3-4 (62.5-125 microns)	na	na	8.5	20.7	10.6	11.7	31.2	31.4	10.2	23.7
Fractional % phi 4-5 (31.2-62.5 microns)	na	na	11.8	15.0	10.1	11	25.2	27.9	9.8	11.1
Fractional % phi 5-6 (15.6-31.2 microns)	na	na	11.7	9.5	9.5	10.7	10.9	10.2	11.0	4.6
Fractional % phi 6-7 (7.8-15.6 microns)	na	na	13.0	6.9	10.2	7.5	7.6	8.0	12.2	2.9
Fractional % phi 7-8 (3.9-7.8 microns)	na	na	12.4	4.5	7.4	4.8	4.4	4.1	10.4	2.3
Fractional % phi 8-9 (1.95-3.9 microns)	na	na	10.6	3.4	5.4	3.4	2.7	2.6	9.3	1.8
Fractional % phi 9-10 (0.98-1.95 microns)	na	na	6.9	2.3	4.3	2.3	2.0	1.6	6.1	1.3
Fractional % phi 10+ (<0.98 micron)	na	na	13.6	4.7	9.1	5.2	4.1	3.8	12.9	3.0

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC48		EW10-SC49		EW10-SC50		EW10-SC51		EW10-SC52	
	EW10-SC48-4.7-6	EW10-SC48-6-8	EW10-SC49-0-1.6	EW10-SC49-1.6-4	EW10-SC50-0-1.6	EW10-SC50-1.6-4	EW10-SC51-0-2	EW10-SC51-2-3.8	EW10-SC52-0-2	EW10-SC52-2-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4.7-6 ft	6-8 ft	0-1.6 ft	1.6-4 ft	0-1.6 ft	1.6-4 ft	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft
Total gravel	na	na	0.3	0.4	3.9	0.3	0.1 U	0.1 U	2.5	0.8
Total sand	na	na	19.5	53.3	40.1	54.6	43.1	41.8	25.6	72.1
Total silt	na	na	48.9	35.9	37.2	34	48.1	50.2	43.4	20.9
Total clay	na	na	31.1	10.4	18.8	10.9	8.8	8.0	28.3	6.1
Total fines (percent silt+clay)	na	na	80.0	46.3	56.0	45	56.9	58.2	71.7	27.0
Conventionals										
Total organic carbon (TOC)	1.82	0.593	1.42	0.606	1.71	1.34	0.369	0.421	2.13	0.774
Total solids	66.70	74.40	61.00	74.00	61.60	70.40	73.70	72.90	59.50	67.70

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
Metals										
Antimony	na	7 UJ	7 UJ	na	8 J	10 UJ	7 UJ	6 UJ	7 UJ	6 UJ
Arsenic	na	9.3 J	7.8 J	na	26.7 J	20.0 J	3.5	4.6	2.7	2.7
Cadmium	na	0.8	1.0	na	3.1	6.2	0.3 U	0.3	0.3 U	0.3 U
Chromium	na	33.9	33.7	na	129	80	12.8	19.8	12.3	14.6
Cobalt	na	8.2	8.1	na	11.9	10.0	5.0	5.3	4.4	5.2
Copper	na	67.9 J	47.0 J	na	293 J	208 J	18.3	28.1	18.2	20.3 J
Lead	na	65 J	43 J	na	535 J	394 J	3 U	18	3 U	3 U
Mercury	na	0.31 J	0.34 J	na	0.58 J	1.83 J	0.03 U	0.14	0.03	0.03 U
Molybdenum	na	2.1	1.8	na	10.0	28	0.9	1.0	0.7	0.7
Nickel	na	24	23	na	86	47	9	16	9	11
Selenium	na	0.7 U	0.7 U	na	0.7 U	1.4	0.7 U	0.7 U	0.7 U	0.6 U
Silver	na	0.7	0.7	na	2.3	3.5	0.4 U	0.4 U	0.4 U	0.4 U
Thallium	na	0.3 U	0.3 U	na	0.3 U	0.6	0.3 U	0.3 U	0.3 U	0.3 U
Vanadium	na	57.3	58.9	na	61.8	89.6	44.1	45.5	43.2	45.5
Zinc	na	105	82	na	664	591	25	79	27	28 J
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	na	na	na	3.4 U
Dibutyltin as ion	na	na	na	na	na	na	na	na	na	4.8 UJ
Tributyltin as ion	na	na	na	na	na	na	na	na	na	3.2 U
PAHs										
1-Methylnaphthalene	na	15 J	13 J	na	1,000	140	180 J	19 U	19 U	19 U
2-Chloronaphthalene	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
2-Methylnaphthalene	na	20	17 J	na	1,000	190	19	19 U	19 U	19 U
Acenaphthene	na	36	24	na	2,000	260	250	15 J	19 U	19 U
Acenaphthylene	na	52	24	na	780	350	19 U	19 U	19 U	19 U

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
Anthracene	na	140	76	na	3,400	1,500	27	24	19 U	19 U
Benzo(a)anthracene	na	210	94	na	5,000	2,800	19 U	65	19 U	19 U
Benzo(a)pyrene	na	450	240	na	5,300	2,500	19 U	100	19 U	19 U
Benzo(g,h,i)perylene	na	110	55	na	1,400	840	19 U	57	19 U	19 U
Total benzofluoranthenes	na	920	440	na	8,400	4,600	19 U	190	19 U	19 U
Chrysene	na	330	130	na	5,300	4,000	19 U	110	19 U	19 U
Dibenzo(a,h)anthracene	na	71	30	na	920	400 J	19 U	11 J	5.9 U	6.0 U
Dibenzofuran	na	22	14 J	na	740	180	160	13 J	19 U	19 U
Fluoranthene	na	420	230	na	13,000	7,500	52	160	19 U	19 U
Fluorene	na	42	29	na	2,200	310	130	16 J	19 U	19 U
Indeno(1,2,3-cd)pyrene	na	120	57	na	1,500	850	19 U	53	19 U	19 U
Naphthalene	na	41	28	na	1,600	480	490	21	19 U	19 U
Phenanthrene	na	240	180	na	12,000	1,500	310	140	19 U	19 U
Pyrene	na	550	600	na	13,000	7,100	26	220	19 U	19 U
Total HPAHs	na	3,180	1,880	na	54,000	30,600 J	78	970 J	19 U	19 U
Total LPAHs	na	550	360	na	22,000	4,400	1,210	220 J	19 U	19 U
cPAHs - mammal - half DL	na	610	310	na	7,200	3,500 J	16 U	140 J	14 U	14 U
Total PAHs	na	3,730	2,240	na	76,000	35,000 J	1,290	1,180 J	19 U	19 U
Phthalates										
Bis(2-ethylhexyl)phthalate	na	280	340	na	1,400	120 U	20	86	27	16 J
Butyl benzyl phthalate	na	23	15 U	na	130	190	22 J	22	15 U	15 U
Diethyl phthalate	na	20 U	22 U	na	78 U	120 U	20	19 U	16 J	19 U
Dimethyl phthalate	na	10 J	15 U	na	46 U	47 U	15 U	15 U	15 U	15 U
Di-n-butyl phthalate	na	20 U	22 U	na	78 U	120 U	19 U	19 U	38	19 U
Di-n-octyl phthalate	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
Other SVOCs										

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
1,2,4-Trichlorobenzene	na	6.0 U	6.1 U	na	18 U	19 U	6.0 U	5.9 U	5.9 U	6.0 U
1,2-Dichlorobenzene	na	6.0 U	6.1 U	na	18 U	19 U	6.0 U	5.9 U	5.9 U	6.0 U
1,3-Dichlorobenzene	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
1,4-Dichlorobenzene	na	12 J	6.1 U	na	18 U	19 U	6.0 U	5.9 U	5.9 U	6.0 U
2,4,5-Trichlorophenol	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
2,4,6-Trichlorophenol	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
2,4-Dichlorophenol	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
2,4-Dimethylphenol	na	6.0 U	6.1 U	na	130	19 U	6.0	5.9 UJ	5.9 UJ	6.0 U
2,4-Dinitrophenol	na	200 U	220 U	na	780 U	1,200 U	190 U	190 U	190 U	190 U
2,4-Dinitrotoluene	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
2,6-Dinitrotoluene	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
2-Chlorophenol	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
2-Methylphenol	na	6.0 U	6.1 U	na	82	19 U	6.0 U	5.9 U	5.9 U	6.0 U
2-Nitroaniline	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
2-Nitrophenol	na	98 U	110 U	na	390 U	610 U	19 U	96 U	96 U	97 U
3,3'-Dichlorobenzidine	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
3-Nitroaniline	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
4,6-Dinitro-o-cresol	na	200 U	220 U	na	780 U	1,200 U	190 U	190 U	190 U	190 U
4-Bromophenyl phenyl ether	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
4-Chloro-3-methylphenol	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
4-Chloroaniline	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
4-Chlorophenyl phenyl ether	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
4-Methylphenol	na	11 J	19 J	na	130	280	19 U	19 U	19 U	19 U
4-Nitroaniline	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
4-Nitrophenol	na	98 U	110 U	na	390 U	610 U	96 U	96 U	96 U	97 U
Aniline	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
Benzoic acid	na	200 U	220 U	na	780 U	1,200 U	190 U	190 U	190 U	190 U
Benzyl alcohol	na	20 U	22 U	na	78 U	120 U	19 U	19 UJ	19 UJ	19 U
bis(2-chloroethoxy)methane	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
bis(2-chloroethyl)ether	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
bis(2-chloroisopropyl)ether	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
Carbazole	na	45	27	na	1,400	120 U	190	14 J	19 U	19 U
Hexachlorobenzene	na	6.0 U	6.1 U	na	15 U	19 U	0.074 U	5.9 U	5.9 U	6.0 U
Hexachlorobutadiene	na	6.0 U	6.1 U	na	15 U	19 U	6.0 U	5.9 U	5.9 U	6.0 U
Hexachlorocyclopentadiene	na	98 UJ	110 UJ	na	390 UJ	610 UJ	96 U	96 U	96 U	97 UJ
Hexachloroethane	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
Isophorone	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
n-Nitroso-di-n-propylamine	na	30 U	30 U	na	93 U	93 U	30 U	29 U	29 U	30 U
n-Nitrosodimethylamine	na	30 U	30 U	na	93 U	93 U	30 U	29 U	29 U	30 UJ
n-Nitrosodiphenylamine	na	6.0 U	6.1 U	na	18 U	19 U	6.0 U	5.9 U	5.9 U	6.0 U
Nitrobenzene	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
Pentachlorophenol	na	30 U	30 U	na	93 UJ	93 UJ	30 U	29 U	29 U	30 U
Phenol	na	20 U	22 U	na	78 U	120 U	19 U	19 U	19 U	19 U
PCBs										
Aroclor-1016	3.9 U	37 U	20 U	3.8 U	28 U	36 U	3.9 U	38 U	3.9 U	3.9 U
Aroclor-1221	3.9 U	37 U	20 U	3.8 U	28 U	36 U	3.9 U	38 U	3.9 U	3.9 U
Aroclor-1232	3.9 U	37 U	20 U	3.8 U	28 U	36 U	3.9 U	38 U	3.9 U	3.9 U
Aroclor-1242	3.9 U	37 U	20 U	3.8 U	28 U	36 U	3.9 U	38 U	3.9 U	3.9 U
Aroclor-1248	3.9 U	150	430	3.8 U	700	390	3.9 U	56	3.9 U	3.9 U
Aroclor-1254	3.9 U	330	500	5.0	900	1,100	3.9 U	170	9.2	12
Aroclor-1260	3.9 U	400	410	4.8	450	1,700	3.9 U	130	5.5	11
Aroclor-1262	3.9 U	37 U	20 U	3.8 U	28 U	36 U	3.9 U	38 U	3.9 U	3.9 U

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
Aroclor-1268	3.9 U	37 U	20 U	3.8 U	28 U	36 U	3.9 U	38 U	3.9 U	3.9 U
Total PCBs	3.9 U	880	1,340	9.8	2,050	3,200	3.9 U	360	14.7	23
Pesticides										
2,4'-DDD	na	na	na	na	64	240	0.011 J	na	na	na
2,4'-DDE	na	na	na	na	30 U	120 J	0.035 U	na	na	na
2,4'-DDT	na	na	na	na	30 U	64 U	0.035 U	na	na	na
4,4'-DDD	na	na	na	na	240	1,000	0.060	na	na	na
4,4'-DDE	na	na	na	na	30 U	64 U	0.035 U	na	na	na
4,4'-DDT	na	na	na	na	110 U	64 U	0.035 U	na	na	na
Total DDTs	na	na	na	na	300	1,400 J	0.07 J	na	na	na
Aldrin	na	na	na	na	15 U	32 U	R	na	na	na
Dieldrin	na	na	na	na	30 U	64 U	0.35 U	na	na	na
Total aldrin/dieldrin	na	na	na	na	30 U	64 U	0.35 U	na	na	na
alpha-BHC	na	na	na	na	15 U	32 U	0.035 U	na	na	na
beta-BHC	na	na	na	na	15 U	32 U	0.035 U	na	na	na
gamma-BHC	na	na	na	na	15 U	32 U	0.035 U	na	na	na
delta-BHC	na	na	na	na	15 U	32 U	R	na	na	na
alpha-Chlordane	na	na	na	na	33	32 U	0.035 U	na	na	na
beta-Chlordane	na	na	na	na	na	na	0.035 U	na	na	na
gamma-Chlordane	na	na	na	na	32 U	32 U	na	na	na	na
Total chlordane	na	na	na	na	33	64 U	0.14 U	na	na	na
Chlorpyrifos	na	na	na	na	na	na	0.035 U	na	na	na
alpha-Endosulfan	na	na	na	na	15 U	32 U	0.14 U	na	na	na
beta-Endosulfan	na	na	na	na	30 U	64 U	0.070 U	na	na	na
Endosulfan sulfate	na	na	na	na	30 U	64 U	0.035 U	na	na	na
Endrin	na	na	na	na	30 U	64 U	0.14 U	na	na	na

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
Endrin aldehyde	na	na	na	na	30 U	64 U	0.14 U	na	na	na
Endrin ketone	na	na	na	na	30 U	64 U	0.085 U	na	na	na
Heptachlor	na	na	na	na	15 U	32 U	0.070 U	na	na	na
Heptachlor epoxide	na	na	na	na	15 U	32 U	0.070 U	na	na	na
Isodrin	na	na	na	na	na	na	0.14 U	na	na	na
Methoxychlor	na	na	na	na	150 U	320 U	0.11 U	na	na	na
Mirex	na	na	na	na	30 U	64 U	0.070 U	na	na	na
cis-Nonachlor	na	na	na	na	30 U	64 U	0.14 U	na	na	na
trans-Nonachlor	na	na	na	na	30 U	64 U	0.035 U	na	na	na
Octachlorostyrene	na	na	na	na	na	na	0.070 U	na	na	na
Oxychlordane	na	na	na	na	30 U	64 U	0.14 U	na	na	na
Toxaphene	na	na	na	na	1,500 U	3,200 U	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	na	0.1	0.3	na	14.0	1.4	na	1.1	0.3	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	na	0.1	0.2	na	7.0	1.1	na	0.5	0.4	0.1
Fractional % phi 0-1 (500-1000 microns)	na	0.4	0.3	na	5.7	0.7	na	1.2	0.6	0.3
Fractional % phi 1-2 (250-500 microns)	na	3.6	1.7	na	9.7	1.3	na	12.9	5.5	5.6
Fractional % phi 2-3 (125-250 microns)	na	19.1	15.5	na	12.2	6.3	na	33.0	28.7	38.3
Fractional % phi 3-4 (62.5-125 microns)	na	20.5	23.4	na	11.7	16.2	na	22.6	21.7	27.7
Fractional % phi 4-5 (31.2-62.5 microns)	na	15.2	20.7	na	10.6	14.4	na	10.5	15.3	11.6
Fractional % phi 5-6 (15.6-31.2 microns)	na	8.4	10.4	na	7.7	10.5	na	4.3	9.2	5.8
Fractional % phi 6-7 (7.8-15.6 microns)	na	7.8	7.6	na	5.2	8.9	na	3.5	7.0	3.5
Fractional % phi 7-8 (3.9-7.8 microns)	na	6.7	6.0	na	4.3	10.8	na	2.7	4.1	2.3
Fractional % phi 8-9 (1.95-3.9 microns)	na	5.3	4.1	na	3.4	9.8	na	2.2	2.7	1.6
Fractional % phi 9-10 (0.98-1.95 microns)	na	3.9	2.8	na	2.3	7.5	na	1.9	1.7	1.2
Fractional % phi 10+ (<0.98 micron)	na	9.0	7.0	na	6.3	11.2	na	3.5	2.8	2.0

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical		EW10-SC53			EW10-SC54			EW10-SC55		EW10
	EW10-SC52-4-6	EW10-SC53-0-2	EW10-SC53-2-4	EW10-SC53-5-7	EW10-SC54-0-2	EW10-SC54-2-4	EW10-SC54-8-9.2	EW10-SC55-0-2	EW10-SC55-2-4	EW10-SC56-0-2
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	4-6 ft	0-2 ft	2-4 ft	5-7 ft	0-2 ft	2-4 ft	8-9.2 ft	0-1.8 ft	1.8-4 ft	0-2 ft
Total gravel	na	0.1	0.3	na	14.0	1.4	na	1.1	0.3	0.1 U
Total sand	na	43.7	41.1	na	46.3	25.6	na	70.2	56.9	72.0
Total silt	na	38.1	44.7	na	27.8	44.6	na	21.0	35.6	23.2
Total clay	na	18.2	13.9	na	12.0	28.5	na	7.6	7.2	4.8
Total fines (percent silt+clay)	na	56.3	58.6	na	39.8	73.1	na	28.6	42.8	28.0
Conventionals										
Total organic carbon (TOC)	0.464	1.30	0.826	0.488	1.87	6.97	1.00	0.892	0.651	0.436
Total solids	75.30	66.30	66.60	75.90	62.20	50.80	70.3	73.60	73.70	75.70

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
Metals										
Antimony	6 UJ	6 UJ	6 UJ	10 UJ	6 UJ	na	6 UJ	7 UJ	7 UJ	7 UJ
Arsenic	2.3	10.2	1.6	56.7	4.7	na	2.4	3.2	12.1	3.0
Cadmium	0.3 U	0.5	0.2 U	3.5	0.4	na	0.2 U	0.3 U	0.7	0.3 U
Chromium	12.8	16.9	10.0	90	17.3	na	11.7	14.7	24.5	11.9
Cobalt	4.4	4.9	3.8	10.1	5.4	na	4.2	4.9	6.1	4.3
Copper	14.2 J	48.7	7.9	442	46.8	na	14.7	19.9	60.8	16.1
Lead	3 U	80	2 U	434	50	na	16	3 U	70	7
Mercury	0.03 U	0.17	0.02 U	1.23	0.19	na	0.02 U	0.03 U	0.69	0.03
Molybdenum	0.6 U	1.5	0.6 U	7	1.6	na	0.6 U	0.7 U	1.8	0.7 U
Nickel	8	11	7	35	14	na	8	10	16	8
Selenium	0.6 U	0.6 U	0.6 U	1	0.7 U	na	0.6 U	0.7 U	0.7 U	0.7 U
Silver	0.4 U	0.8	0.4 U	4.3	0.4 U	na	0.4 U	0.4 U	0.7	0.4 U
Thallium	0.3 U	0.3 U	0.2 U	0.4 U	0.3 U	na	0.2 U	0.3 U	0.3 U	0.3 U
Vanadium	42.0	43.6	34.8	73.4	46.1	na	38.6	45.2	48.0	39.6
Zinc	23 J	74	19	459	62	na	24	27	92	27
Organometals										
Monobutyltin as ion	3.7 U	na	na	na	na	na	3.5 U	3.5 U	na	na
Dibutyltin as ion	5.2 UJ	na	na	na	na	na	5.0 U	5.0 U	na	na
Tributyltin as ion	3.5 U	na	na	na	na	na	3.3 U	3.3 U	na	na
PAHs										
1-Methylnaphthalene	19 U	20 J	19 U	31 J	36 J	9.6	20 U	20 U	16 J	19 U
2-Chloronaphthalene	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
2-Methylnaphthalene	19 U	23 J	19 U	44 J	44	16	20 U	20 U	19 J	19 U
Acenaphthene	19 U	180	19 U	86	1,000	7.7	20 U	20 U	57	19 U
Acenaphthylene	19 U	160	19 U	170	41	4.8 U	20 U	20 U	44	19 U

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
Anthracene	19 U	370	19 U	1,200	1,000	13	20 U	20 U	220	13 J
Benzo(a)anthracene	19 U	840	19 U	2,600	1,200	12	20 U	20 U	350	22
Benzo(a)pyrene	19 U	1,200	19 U	3,500	510	10	20 U	20 U	830	36
Benzo(g,h,i)perylene	19 U	200	19 U	590	59	8.6	20 U	20 U	160	13 J
Total benzofluoranthenes	19 U	2,200	19 U	7,800	1,200	20	20 U	20 U	1,500	56
Chrysene	19 U	1,100	19 U	4,000	1,400	18	20 U	20 U	730	31
Dibenzo(a,h)anthracene	6.0 U	92	6.0 U	330	32	4.8 U	6.0 UJ	6.1 UJ	100	6.2 U
Dibenzofuran	19 U	74	19 U	56	500	10	20 U	20 U	38	19 U
Fluoranthene	19 U	1,900	19 UJ	1,400	6,400 J	24	20 U	20 U	560 J	26 J
Fluorene	19 U	150	19 U	130	930	11	20 U	20 U	69	19 U
Indeno(1,2,3-cd)pyrene	19 U	200	19 U	630	64	6.7	20 U	20 U	180	13 J
Naphthalene	19 U	120	19 U	76	240	12	20 U	20 U	70	19 U
Phenanthrene	19 U	1,200	19 U	690	3,600	48	20 U	20 U	340	21
Pyrene	19 U	3,500	15 J	6,500	4,900	22	12 J	20 U	2,200	93
Total HPAHs	19 U	11,200	15 J	27,400	15,800 J	121	12 J	20 U	6,600 J	290 J
Total LPAHs	19 U	2,200	19 U	2,400	6,800	92	20 U	20 U	800	34 J
cPAHs - mammal - half DL	14 U	1,600	14 U	4,800	780	15	14 UJ	14 UJ	1,100	47 J
Total PAHs	19 U	13,400	15 J	29,700	22,600 J	213	12 J	20 U	7,400 J	324 J
Phthalates										
Bis(2-ethylhexyl)phthalate	15 J	120	17 J	1,000	39 U	na	13 J	13 J	120	29
Butyl benzyl phthalate	15 U	15 U	15 U	44	15 U	na	15 U	15 U	15 U	15 U
Diethyl phthalate	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
Dimethyl phthalate	15 U	15 U	15 U	16	15 U	na	15 U	15 U	15 U	15 U
Di-n-butyl phthalate	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
Di-n-octyl phthalate	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
Other SVOCs										

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
1,2,4-Trichlorobenzene	6.0 U	6.0 U	6.0 U	6.2 U	6.0 U	na	6.0 U	6.1 U	6.1 U	6.2 U
1,2-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.2 U	6.0 U	na	6.0 U	6.1 U	6.1 U	6.2 U
1,3-Dichlorobenzene	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
1,4-Dichlorobenzene	6.0 U	77	6.0 U	8.1	6.0 U	na	6.0 U	6.1 U	17 J	6.2 U
2,4,5-Trichlorophenol	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
2,4,6-Trichlorophenol	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
2,4-Dichlorophenol	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
2,4-Dimethylphenol	6.0 U	6.0 U	6.0 U	6.2 U	6.0 U	na	6.0 U	6.1 U	6.1 U	6.2 U
2,4-Dinitrophenol	190 U	240 U	190 U	510 U	390 U	na	200 U	200 U	280 U	190 U
2,4-Dinitrotoluene	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
2,6-Dinitrotoluene	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
2-Chlorophenol	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
2-Methylphenol	6.0 U	6.0 U	6.0 U	6.2 U	6.0 U	na	6.0 U	6.1 U	6.1 U	6.2 U
2-Nitroaniline	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
2-Nitrophenol	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
3,3'-Dichlorobenzidine	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
3-Nitroaniline	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
4,6-Dinitro-o-cresol	190 U	240 U	190 U	510 U	390 U	na	200 U	200 U	280 U	190 U
4-Bromophenyl phenyl ether	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
4-Chloro-3-methylphenol	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
4-Chloroaniline	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
4-Chlorophenyl phenyl ether	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
4-Methylphenol	19 U	24 U	19 U	33 J	39 U	na	20 U	20 U	28 U	19 U
4-Nitroaniline	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
4-Nitrophenol	96 U	120 U	97 U	260 U	190 U	na	98 U	99 U	140 U	97 U
Aniline	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
Benzoic acid	190 U	240 U	190 U	510 U	390 U	na	200 U	200 U	280 U	190 U
Benzyl alcohol	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
bis(2-chloroethoxy)methane	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
bis(2-chloroethyl)ether	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
bis(2-chloroisopropyl)ether	19 U	24 UJ	19 U	51 UJ	39 UJ	na	20 UJ	20 UJ	28 U	19 U
Carbazole	19 U	73	19 U	260	39 U	na	20 U	20 U	57	19 U
Hexachlorobenzene	6.0 U	6.0 U	0.98 U	6.2 U	6.0 U	na	6.0 U	6.1 U	6.1 U	6.2 U
Hexachlorobutadiene	6.0 U	6.0 U	0.98 U	6.2 U	6.0 U	na	6.0 U	6.1 U	6.1 U	6.2 U
Hexachlorocyclopentadiene	96 UJ	120 U	97 UJ	260 U	190 U	na	98 U	99 U	140 UJ	97 UJ
Hexachloroethane	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
Isophorone	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
n-Nitroso-di-n-propylamine	30 U	30 U	30 U	31 U	30 U	na	30 U	30 U	31 U	31 U
n-Nitrosodimethylamine	30 UJ	30 U	30 U	31 U	30 U	na	30 U	30 U	31 U	31 U
n-Nitrosodiphenylamine	6.0 U	17 U	6.0 U	6.2 U	39 U	na	6.0 U	6.1 U	6.1 U	6.2 U
Nitrobenzene	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
Pentachlorophenol	30 U	30 U	30 U	31 U	30 U	na	30 U	30 U	31 U	31 U
Phenol	19 U	24 U	19 U	51 U	39 U	na	20 U	20 U	28 U	19 U
PCBs										
Aroclor-1016	3.9 U	53 U	3.9 U	79 U	4.0 U	na	4.0 U	3.9 U	38 U	3.9 U
Aroclor-1221	3.9 U	53 U	3.9 U	79 U	4.0 U	na	4.0 U	3.9 U	38 U	3.9 U
Aroclor-1232	3.9 U	53 U	3.9 U	79 U	6.0 U	na	4.0 U	3.9 U	38 U	3.9 U
Aroclor-1242	3.9 U	53 U	3.9 U	160	4.0 U	na	4.0 U	3.9 U	38 U	4.7
Aroclor-1248	3.9 U	53 U	3.9 U	79 U	4.0 U	na	4.0 U	3.9 U	38 U	3.9 U
Aroclor-1254	3.9 U	120	3.9 U	780 J	4.0 U	na	4.0 U	3.9 U	120	13 J
Aroclor-1260	3.9 U	190	3.9 U	620	4.0 U	na	4.0 U	3.9 U	160	9.7
Aroclor-1262	3.9 U	53 U	3.9 U	79 U	4.0 U	na	4.0 U	3.9 U	38 U	3.9 U

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
Aroclor-1268	3.9 U	53 U	3.9 U	79 U	4.0 U	na	4.0 U	3.9 U	38 U	3.9 U
Total PCBs	3.9 U	310	3.9 U	1,560 J	6.0 U	na	4.0 U	3.9 U	280	27 J
Pesticides										
2,4'-DDD	na	13 U	2.0 U	na	na	na	na	na	na	na
2,4'-DDE	na	13 U	2.0 U	na	na	na	na	na	na	na
2,4'-DDT	na	13 U	2.0 U	na	na	na	na	na	na	na
4,4'-DDD	na	13 U	2.0 U	na	na	na	na	na	na	na
4,4'-DDE	na	13 U	2.0 U	na	na	na	na	na	na	na
4,4'-DDT	na	13 U	2.0 U	na	na	na	na	na	na	na
Total DDTs	na	13 U	2.0 U	na	na	na	na	na	na	na
Aldrin	na	6.5 U	0.98 U	na	na	na	na	na	na	na
Dieldrin	na	13 U	2.0 U	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	13 U	2.0 U	na	na	na	na	na	na	na
alpha-BHC	na	6.5 U	0.98 U	na	na	na	na	na	na	na
beta-BHC	na	6.5 U	0.98 U	na	na	na	na	na	na	na
gamma-BHC	na	6.5 U	0.98 U	na	na	na	na	na	na	na
delta-BHC	na	6.5 U	0.98 U	na	na	na	na	na	na	na
alpha-Chlordane	na	6.5 U	0.98 U	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	6.5 U	0.98 U	na	na	na	na	na	na	na
Total chlordane	na	13 U	2.0 U	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	6.5 U	0.98 U	na	na	na	na	na	na	na
beta-Endosulfan	na	13 U	2.0 U	na	na	na	na	na	na	na
Endosulfan sulfate	na	13 U	2.0 U	na	na	na	na	na	na	na
Endrin	na	13 U	2.0 U	na	na	na	na	na	na	na

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
Endrin aldehyde	na	13 U	2.0 U	na	na	na	na	na	na	na
Endrin ketone	na	13 U	2.0 U	na	na	na	na	na	na	na
Heptachlor	na	6.5 U	0.98 U	na	na	na	na	na	na	na
Heptachlor epoxide	na	6.5 U	0.98 U	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	65 U	9.8 U	na	na	na	na	na	na	na
Mirex	na	13 U	2.0 U	na	na	na	na	na	na	na
cis-Nonachlor	na	13 U	2.0 U	na	na	na	na	na	na	na
trans-Nonachlor	na	13 U	2.0 U	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	13 U	2.0 U	na	na	na	na	na	na	na
Toxaphene	na	650 U	98 U	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.1 U	0.7	0.2	3.2	0.8	na	3.7	0.4	0.5	0.2
Fractional % phi -1-0 (1000-2000 microns)	0.1 U	0.4	0.2	1.2	0.6	na	0.7	0.1	0.5	0.4
Fractional % phi 0-1 (500-1000 microns)	0.2	1.0	1.9	1.2	1.1	na	2.4	0.6	0.8	0.9
Fractional % phi 1-2 (250-500 microns)	9.1	18.6	58.5	2.4	15.6	na	34.9	4.7	8.4	21.4
Fractional % phi 2-3 (125-250 microns)	47.6	23.0	32.2	7.2	33.0	na	34.6	13.8	20.7	37.1
Fractional % phi 3-4 (62.5-125 microns)	20.5	18.8	3.1	11.1	17.8	na	9.1	26.9	20.6	17.1
Fractional % phi 4-5 (31.2-62.5 microns)	8.9	15.2	na	12.7	12.6	na	6.2	24.5	15.5	9.8
Fractional % phi 5-6 (15.6-31.2 microns)	4.9	8.0	na	11.7	5.1	na	2.8	11.1	9.2	4.0
Fractional % phi 6-7 (7.8-15.6 microns)	3.0	4.8	na	11.9	4.7	na	1.8	6.1	7.0	3.0
Fractional % phi 7-8 (3.9-7.8 microns)	1.7	2.8	na	10.5	2.9	na	1.1	3.8	4.4	1.9
Fractional % phi 8-9 (1.95-3.9 microns)	1.2	2.2	na	8.7	2.0	na	0.8	2.6	3.6	1.2
Fractional % phi 9-10 (0.98-1.95 microns)	0.9	1.7	na	6.6	1.5	na	0.5	1.7	2.5	0.9
Fractional % phi 10+ (<0.98 micron)	1.9	2.8	na	11.6	2.3	na	1.5	3.9	6.1	2.1

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	-SC56	EW10-SC57		EW10-SC58			EW10-SC59		EW10-SC60	
	EW10-SC56-2-4	EW10-SC57-0-2	EW10-SC57-2-4	EW10-SC58-0-1.8	EW10-SC58-1.8-4	EW10-SC58-6-8	EW10-SC59-0-2	EW10-SC59-2-4	EW10-SC60-0-0.8	EW10-SC60-0.8-3
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	2-4 ft	0-2 ft	2-4 ft	0-1.8 ft	1.8-4 ft	6-8 ft	0-2 ft	2-4 ft	0-0.8 ft	0.8-3 ft
Total gravel	0.1 U	0.7	0.2	3.2	0.8	na	3.7	0.4	0.5	0.2
Total sand	77.4	61.8	95.9	23.1	68.1	na	81.7	46.1	51.0	76.9
Total silt	18.5	30.8	na	46.8	25.3	na	11.9	45.5	36.1	18.7
Total clay	4.0	6.7	na	26.9	5.8	na	2.8	8.2	12.2	4.2
Total fines (percent silt+clay)	22.5	37.5	na	73.7	31.1	na	14.7	53.7	48.3	22.9
Conventionals										
Total organic carbon (TOC)	0.332	0.649	0.260	1.30	1.27	0.608	0.948	0.472	1.74	0.879
Total solids	73.30	75.60	81.30	48.90	71.90	75.10	74.30	74.50	64.00	71.50

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
Metals										
Antimony	7 UJ	6 UJ	7 UJ	7 UJ	7 UJ	7 UJ	na	na	na	na
Arsenic	8.0	4.7	3.5	2.8	3.0	3.4	na	na	na	na
Cadmium	0.5	0.3	0.3 U	0.3 U	0.3 U	0.3 U	na	na	na	na
Chromium	27.0	18.3	16.9	15.0	13.6	16.1	na	na	na	na
Cobalt	6.7	5.5	5.4	4.7	4.5	5.0	na	na	na	na
Copper	47.2	25.7	22.9 J	17.5 J	15.6	20.6	na	na	na	na
Lead	44	13	4	3 U	3 U	3 U	na	na	na	na
Mercury	0.27	0.07	0.04	0.03 U	0.02 U	0.03 U	na	na	na	na
Molybdenum	1.4	1.1	0.9	0.7	0.7 U	0.7	na	na	na	na
Nickel	21	13	12	10	9	11	na	na	na	na
Selenium	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	na	na	na	na
Silver	0.4	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	na	na	na	na
Thallium	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	na	na	na	na
Vanadium	50.1	46.5	47.4	43.1	45.7	48.8	na	na	na	na
Zinc	76	38	30 J	25 J	26	28	na	na	na	na
Organometals										
Monobutyltin as ion	na	na	na	na	na	na	3.7 U	3.4 U	3.8 U	3.8 U
Dibutyltin as ion	na	na	na	na	na	na	23	4.8 U	5.4 U	5.4 U
Tributyltin as ion	na	na	na	na	na	na	240 J	3.2 U	6.9 J	3.6 U
PAHs										
1-Methylnaphthalene	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
2-Chloronaphthalene	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
2-Methylnaphthalene	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Acenaphthene	18 J	15 J	19 U	19 U	20 U	19 U	na	na	na	na
Acenaphthylene	19 J	19 U	19 U	19 U	20 U	19 U	na	na	na	na

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
Anthracene	60	26	19 U	19 U	20 U	19 U	na	na	na	na
Benzo(a)anthracene	140	42	19 U	19 U	20 U	19 U	na	na	na	na
Benzo(a)pyrene	210	48	19 U	19 U	20 U	19 U	na	na	na	na
Benzo(g,h,i)perylene	59	18 J	19 U	19 U	20 U	19 U	na	na	na	na
Total benzofluoranthenes	380	66	19 U	19 U	20 U	19 U	na	na	na	na
Chrysene	210	46	19 U	19 U	20 U	19 U	na	na	na	na
Dibenzo(a,h)anthracene	33	7.8	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
Dibenzofuran	10 J	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Fluoranthene	340 J	98 J	19 U	19 U	20 U	19 U	na	na	na	na
Fluorene	22	13 J	19 U	19 U	20 U	19 U	na	na	na	na
Indeno(1,2,3-cd)pyrene	64	17 J	19 U	19 U	20 U	19 U	na	na	na	na
Naphthalene	15 J	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Phenanthrene	160	95	19 U	19 U	20 U	19 U	na	na	na	na
Pyrene	340	120	19 U	19 U	20 U	19 U	na	na	na	na
Total HPAHs	1,780 J	460 J	19 U	19 U	20 U	19 U	na	na	na	na
Total LPAHs	290 J	149 J	19 U	19 U	20 U	19 U	na	na	na	na
cPAHs - mammal - half DL	280	64 J	14 U	14 U	14 U	14 U	na	na	na	na
Total PAHs	2,070 J	610 J	19 U	19 U	20 U	19 U	na	na	na	na
Phthalates										
Bis(2-ethylhexyl)phthalate	69	21	17 J	19 J	51 U	25 U	na	na	na	na
Butyl benzyl phthalate	15 U	15 U	14 U	15 U	15 U	15 U	na	na	na	na
Diethyl phthalate	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Dimethyl phthalate	15 U	15 U	14 U	15 U	15 U	15 U	na	na	na	na
Di-n-butyl phthalate	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Di-n-octyl phthalate	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Other SVOCs										

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
1,2,4-Trichlorobenzene	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
1,2-Dichlorobenzene	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
1,3-Dichlorobenzene	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
1,4-Dichlorobenzene	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
2,4,5-Trichlorophenol	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
2,4,6-Trichlorophenol	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
2,4-Dichlorophenol	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
2,4-Dimethylphenol	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
2,4-Dinitrophenol	200 U	190 U	190 U	190 U	200 U	190 U	na	na	na	na
2,4-Dinitrotoluene	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
2,6-Dinitrotoluene	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
2-Chlorophenol	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
2-Methylphenol	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
2-Nitroaniline	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
2-Nitrophenol	99 U	96 U	96 U	95 U	98 UJ	97 UJ	na	na	na	na
3,3'-Dichlorobenzidine	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
3-Nitroaniline	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
4,6-Dinitro-o-cresol	200 U	190 U	190 U	190 U	200 U	190 U	na	na	na	na
4-Bromophenyl phenyl ether	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
4-Chloro-3-methylphenol	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
4-Chloroaniline	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
4-Chlorophenyl phenyl ether	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
4-Methylphenol	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
4-Nitroaniline	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
4-Nitrophenol	99 U	96 U	96 U	95 U	98 U	97 U	na	na	na	na
Aniline	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
Benzoic acid	200 U	190 U	190 U	190 U	200 U	190 U	na	na	na	na
Benzyl alcohol	20 U	19 U	19 UJ	19 UJ	20 U	19 U	na	na	na	na
bis(2-chloroethoxy)methane	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
bis(2-chloroethyl)ether	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
bis(2-chloroisopropyl)ether	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Carbazole	21	15 J	19 U	19 U	20 U	19 U	na	na	na	na
Hexachlorobenzene	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
Hexachlorobutadiene	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
Hexachlorocyclopentadiene	99 UJ	96 UJ	96 UJ	95 UJ	98 UJ	97 UJ	na	na	na	na
Hexachloroethane	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Isophorone	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
n-Nitroso-di-n-propylamine	30 U	30 U	29 U	29 U	31 U	30 U	na	na	na	na
n-Nitrosodimethylamine	30 U	30 U	29 UJ	29 UJ	31 U	30 U	na	na	na	na
n-Nitrosodiphenylamine	6.1 U	6.0 U	5.8 U	5.9 U	6.1 U	6.0 U	na	na	na	na
Nitrobenzene	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
Pentachlorophenol	30 U	30 U	29 U	29 U	31 UJ	30 UJ	na	na	na	na
Phenol	20 U	19 U	19 U	19 U	20 U	19 U	na	na	na	na
PCBs										
Aroclor-1016	39 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1221	39 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1232	39 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1242	39 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1248	76 J	6.4 J	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1254	110 JN	11	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1260	94	10	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Aroclor-1262	39 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
Aroclor-1268	39 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Total PCBs	280 JN	27 J	3.9 U	3.8 U	3.9 U	3.8 U	na	na	na	na
Pesticides										
2,4'-DDD	na	na	na	na	na	na	na	na	na	na
2,4'-DDE	na	na	na	na	na	na	na	na	na	na
2,4'-DDT	na	na	na	na	na	na	na	na	na	na
4,4'-DDD	na	na	na	na	na	na	na	na	na	na
4,4'-DDE	na	na	na	na	na	na	na	na	na	na
4,4'-DDT	na	na	na	na	na	na	na	na	na	na
Total DDTs	na	na	na	na	na	na	na	na	na	na
Aldrin	na	na	na	na	na	na	na	na	na	na
Dieldrin	na	na	na	na	na	na	na	na	na	na
Total aldrin/dieldrin	na	na	na	na	na	na	na	na	na	na
alpha-BHC	na	na	na	na	na	na	na	na	na	na
beta-BHC	na	na	na	na	na	na	na	na	na	na
gamma-BHC	na	na	na	na	na	na	na	na	na	na
delta-BHC	na	na	na	na	na	na	na	na	na	na
alpha-Chlordane	na	na	na	na	na	na	na	na	na	na
beta-Chlordane	na	na	na	na	na	na	na	na	na	na
gamma-Chlordane	na	na	na	na	na	na	na	na	na	na
Total chlordane	na	na	na	na	na	na	na	na	na	na
Chlorpyrifos	na	na	na	na	na	na	na	na	na	na
alpha-Endosulfan	na	na	na	na	na	na	na	na	na	na
beta-Endosulfan	na	na	na	na	na	na	na	na	na	na
Endosulfan sulfate	na	na	na	na	na	na	na	na	na	na
Endrin	na	na	na	na	na	na	na	na	na	na

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
Endrin aldehyde	na	na	na	na	na	na	na	na	na	na
Endrin ketone	na	na	na	na	na	na	na	na	na	na
Heptachlor	na	na	na	na	na	na	na	na	na	na
Heptachlor epoxide	na	na	na	na	na	na	na	na	na	na
Isodrin	na	na	na	na	na	na	na	na	na	na
Methoxychlor	na	na	na	na	na	na	na	na	na	na
Mirex	na	na	na	na	na	na	na	na	na	na
cis-Nonachlor	na	na	na	na	na	na	na	na	na	na
trans-Nonachlor	na	na	na	na	na	na	na	na	na	na
Octachlorostyrene	na	na	na	na	na	na	na	na	na	na
Oxychlordane	na	na	na	na	na	na	na	na	na	na
Toxaphene	na	na	na	na	na	na	na	na	na	na
Grain size										
Fractional % phi >-1 (>2000 microns)	0.9	0.2	0.3	0.1 U	0.1 U	0.1	na	na	na	na
Fractional % phi -1-0 (1000-2000 microns)	0.4	0.5	0.1	0.1	0.1	0.3	na	na	na	na
Fractional % phi 0-1 (500-1000 microns)	0.7	0.8	0.4	0.5	0.6	0.3	na	na	na	na
Fractional % phi 1-2 (250-500 microns)	7.9	8.7	3.5	6.9	18.8	0.4	na	na	na	na
Fractional % phi 2-3 (125-250 microns)	21.2	21.8	19.4	33.2	31.0	4.9	na	na	na	na
Fractional % phi 3-4 (62.5-125 microns)	20.5	23.3	28.0	24.6	14.6	19.3	na	na	na	na
Fractional % phi 4-5 (31.2-62.5 microns)	13.8	16.2	18.6	14.5	12.2	25.7	na	na	na	na
Fractional % phi 5-6 (15.6-31.2 microns)	8.3	9.1	9.6	7.1	7.8	20.5	na	na	na	na
Fractional % phi 6-7 (7.8-15.6 microns)	7.0	6.5	6.8	4.7	5.4	11.6	na	na	na	na
Fractional % phi 7-8 (3.9-7.8 microns)	5.2	3.9	3.7	2.4	2.8	5.9	na	na	na	na
Fractional % phi 8-9 (1.95-3.9 microns)	4.1	2.9	2.7	1.8	1.8	3.3	na	na	na	na
Fractional % phi 9-10 (0.98-1.95 microns)	2.8	1.7	2.1	1.3	1.4	2.4	na	na	na	na
Fractional % phi 10+ (<0.98 micron)	7.0	4.4	4.7	2.9	3.4	5.3	na	na	na	na

Appendix A
EW subsurface boring and sediment chemistry final results

Chemical	EW10-SC61		EW10-SC62		EW10-SC63		EW10-SC100		EW10-SC101	
	EW10-SC61-0-1	EW10-SC61-1-3	EW10-SC62-0-2	EW10-SC62-2-3.3	EW10-SC63-0-2	EW10-SC63-2-4	EW10-SC100-0-1.1	EW10-SC100-1.1-3	EW10-SC101-0-2.3	EW10-SC101-2.3-4
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	N	N	N	N	N	N	N	N	N	N
	0-1 ft	1-3 ft	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	0-1.1 ft	1.1-3 ft	0-2.3 ft	2.3-4 ft
Total gravel	0.9	0.2	0.3	0.1 U	0.1 U	0.1	na	na	na	na
Total sand	50.7	55.1	51.4	65.3	65.1	25.2	na	na	na	na
Total silt	34.3	35.7	38.7	28.7	28.2	63.7	na	na	na	na
Total clay	13.9	9.0	9.5	6.0	6.6	11.0	na	na	na	na
Total fines (percent silt+clay)	48.2	44.7	48.2	34.7	34.8	74.7	na	na	na	na
Conventionals										
Total organic carbon (TOC)	0.924	1.20	0.596	0.607	0.560	0.644	1.67	0.289	0.914	0.403
Total solids	69.50	73.30	70.80	72.30	72.20	70.70	58.10	75.30	78.40	73.30

Abbreviations

dw - dry weight

FD - field duplicate

N - normal field sample

na - not analyzed

SE - sediment

ww - wet weight

Data Qualifiers

J - estimated concentration

U - not detected at given concentration

UJ - not detected at given estimated concentration

APPENDIX B

Sediment Core Logs

East Waterway Physical Description of Sediment Key

Visual Sediment Descriptions consist of the following:
Depth (recovered), USC symbol, moisture content, density/consistency (estimated based on visual observation), color, MAJOR CONSTITUENT/GROUP NAME. Amount and shape of minor constituents (e.g., wood, shells). Sheen and odor.

Recovered and In-situ depths
Recovered = measured in the lab, actual sediment depth from core tube
In situ = compaction-corrected

Sediment Description Terminology:

Moisture and Density:

Moisture Content	
Dry	Little perceptible moisture
Damp	Some perceptible moisture, probably below optimum
Moist	Probably near optimum moisture content, no visible water
Wet	Visible free water, probably above optimum

Density/Consistency	
Soil density and consistency are estimated based on visual observations	

Density: Visual Core Drive Penetration		
SAND or GRAVEL		SILT or CLAY
Density	Visual	Consistency
Very loose	freefall	Very soft
Loose	easy penetration	Soft
Medium dense	moderate penetration	Medium stiff
Dense	hard penetration	Stiff
Very dense	refusal	Very stiff/Hard

Major and Minor Constituents by Volume:

Sediment	Percent
Trace (clay, silt, etc.)	0-5
Slightly (clayey, silty, etc.)	5-15
Clayey, silty, sandy, gravelly	15-30
Very (clayey, silty, etc.)	30-50
GROUP NAME	>50

Other Minor Constituents: % vol. (anthropogenics, etc.)	
Trace	0-5
Occasional	5-10
Moderate	10-30
Substantial	30-50

Sheen - % coverage	
None, trace	<2
Slight	2-15
Moderate	15-40
Moderate to Heavy	40-70
Heavy	>70

Sheen - Visual Description	
Rainbow	Multicolored
Metallic	Metallic gray-colored
Florets	Semi-circular and flat
Blebs	Semi-circular and spherical

Odor Descriptions
Trace
Slight
Moderate
Strong
HC-like = Hydrocarbon-like
H_2S = Hydrogen sulfide

*No odor or sheen observed unless noted

Structure and Other Sediment Descriptions	
Blocky	Cohesive soil that can be broken down into smaller lumps
Decomposed	Visible sign of decomposition or discoloration
Fresh	No visible sign of decomposition or discoloration
Gummy	Cohesive, pliable soil with high percentage of clay
Bed	Greater than 1/2" thick
Thin bed	Up to 1/2" thick
Laminated beds	Thin beds (<1/2" thick) lying between or alternating within a greater unit
Stratified beds	Beds (>1/2" thick) lying between or alternating within a greater unit
Layer	A bed or thin bed of anthropogenic material
Pockets	Semicircular to circular inclusion/deposit
Winnowed	Loss of material that occurred during coring
Anthropogenic	Debris originated from human activity

Contacts:	
@	Compositional change or presence of anthropogenic material
.....	Major unit change/non-discrete, gradational contact
_____	Major unit change/visually discrete, abrupt contact

Core Acceptance Guidelines
1. Desired drive depth is reached or refusal.
2. Core recovery is greater than 70% or best professional judgment.
3. Core tube appears intact (no signs of blocking, bending).
4. Minimal sediment loss out the top or bottom (minimal winnowing).

Notes:
*Classification of sediment on core logs is based on visual field observations according to ASTM D-2488, as well as laboratory testing including grain size and plasticity estimates, where available. Sediment classifications should not be construed to imply field nor laboratory testing unless presented herein.

Sediment Core Log

CORE: EW10-SC03

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.2**	Penetration Depth (ft): **7.65**
Client: **Port of Seattle**	Water Depth (ft): **11.5**	Recovery Length (ft): **5.7**
Collection Date: **2/22/2010**	Surveyed Mudline Elevation (ft): **-6.3**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.2706 N** E/LONG: **122 20.7608 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC03-0-2		SVOC, PCB, Metals, TOC/TS, GS	NA	(ML) Moist, medium stiff, black, SILT, trace f-sand, trace subrounded f-gravel (1/2"-diameter). Trace biota (bivalve, intact), trace wood fragments (2.5"-long), substantial shell fragments. Moderate H2S odor.	Recent
					(ML) Moist, medium stiff, black, SILT, trace f-sand. Trace shell fragments.	
1–2					(SM) Moist, medium dense, black, silty, f-SAND. Trace layers of decomposed wood, trace shell fragments.	
2–3	EW10-SC03-2-4		SVOC, PCB, Metals, TOC/TS, GS	NA	(SP) Damp, medium dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray	Transition
3–4				NA	@ 3': Grades to trace subrounded c-gravel (2"-diameter). Trace shell fragments (1"-long). Winnowing to end of core	Native
4–5	EW10-SC03-4-5.5		Archive			
5–6					End of core at 5.8 '.	

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Footnote(1): Attempt 1 of 1

Footnote (2): PID measurements not available due to instrument malfunction. Core quality is disturbed due to winnowing in sand layer.

Calculated Recovery

Recovery Length/Penetration Depth:

5.7/7.65 ft = 74.5%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC04

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **2.3**	Penetration Depth (ft): **12.45**
Client: **Port of Seattle**	Water Depth (ft): **5.5**	Recovery Length (ft): **7.35**
Collection Date: **2/22/2010**	Surveyed Mudline Elevation (ft): **0.9**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.2805 N** E/LONG: **122 20.6899 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC04-0-2		SVOC, PCB, Metals, TOC/TS, GS	0 1.1 2.5 0	(ML) Moist, medium stiff, black, slightly f-gravelly, sandy, SILT. Subrounded gravel is poorly sorted (1/2"-diameter). Moderate shell fragments. (ML) Moist, medium stiff, olive gray, SILT. Trace decomposed wood fragments and fibers (1/2"-long). (ML) Moist, medium stiff, black, SILT, trace f-sand, trace subangular f-gravel (1/2"-diameter). Moderate decomposed wood fragments and shell fragments. Moderate H2S odor.	Recent+Fill
2–4	EW10-SC04-2-4		SVOC, PCB, Metals, TOC/TS, GS	0	(SP) Moist, medium dense, dark gray, f-SAND and trace thin beds of silt. Sand grains are multicolored and are red, beige, black, white, and gray. Sand is homogenous. @ 3.75': Bed of olive gray, SILT with decomposed wood fragments @ 4': Grades to homogenous SAND	Native
4–7.5	EW10-SC04-4-5.5		SVOC	0 0	@ 4.8': Thin bed of dark gray, subrounded GRAVEL (1/2"-diameter) @ 5.5': winnowing to end of core @ 7': Grades to f-m-SAND	
7.5–8					End of core at 7.5'.	

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to winnowing in sand layer.

Calculated Recovery
Recovery Length/Penetration Depth:
7.35/12.45 ft = 59.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC05

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.5**	Penetration Depth (ft): **7.35**
Client: **Port of Seattle**	Water Depth (ft): **21.2**	Recovery Length (ft): **6.05**
Collection Date: **2/23/2010**	Surveyed Mudline Elevation (ft): **-11.1**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.3086 N** E/LONG: **122 20.7126 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–7	EW10-SC05-0-2 EW10-SC05-2-4 3.5-4.0 4.0-4.5 4.5-5.0 5.0-5.5	◆ ◆	SVOC, PCB, Metals, TOC/TS, GS SVOC, PCB, Metals, TOC/TS, GS Archive Archive Archive Archive	0 0 0 0	(ML) Moist, medium stiff, black with olive gray mottling, slightly f-sandy, SILT. Occasional shell fragments. Grades to increased sand content towards basal contact. (SM) Moist, medium dense, black, silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Occasional shell fragments. @ 1.5': Grades to m-sand (coarsening downwards towards basal contact), trace subrounded f-gravel (1/4"-diameter) and trace beds of SILT (ML). Moderate shell fragments (SP) Damp, medium dense, dark gray, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Grades to f-sand towards basal contact. @ 3-4.5': Winnowing End of core at 6.2'.	Recent Transition Native

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to winnowing in sand layer.

Calculated Recovery
Recovery Length/Penetration Depth:
6.05/7.35 ft 82.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC06

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.3**	Penetration Depth (ft): **14.35**
Client: **Port of Seattle**	Water Depth (ft): **36.3**	Recovery Length (ft): **11.55**
Collection Date: **2/22/2010**	Surveyed Mudline Elevation (ft): **-29.4**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.3570 N** E/LONG: **122 20.6736 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC06-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	2	(ML) Moist, soft, black, clayey SILT, trace f-sand, trace subrounded f-gravel (1/2"-diameter). Silt is smooth and homogenous. Trace wood fragments and twigs, trace shell fragments. Moderate H2S odor.	Recent
					@ 1.8': Piece of glass, wood fragment (2.5"-long, cedar)	
				69.9	@ 2': Thin bed of f-sandy, SILT (ML)	
2–3	EW10-SC06-2-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins		(SP) Moist, medium dense, black, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	
				72	(ML) Moist, medium stiff, olive gray, SILT. Substantial decomposed wood fragments (3"-long, brown). Moderate H2S odor.	Transition
3–4				170		
4–6	EW10-SC06-4-6		Mercury		@ 4.8': Wood piece (3"x 3"-wide)	
				78	@ 5.1': Grades to damp, slightly clayey, SILT. Silt has a blocky texture. Occasional wood fragments, trace wood fibers (hair-like)	
				31		
6–7.4	EW10-SC06-6-7.4		Mercury	7.8		
7–8	EW10-SC06-7			0	@ 6.9': Grades to slightly f-sandy, SILT. Trace wood fragments	
					(SP) Damp, dense, dark gray, f-SAND and occasional pockets and stratified beds of SILT (ML) Moderate wood fragments (1"-long).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.55/14.35 ft 80.5%

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Sediment Core Log

CORE: EW10-SC06

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.3**	Penetration Depth (ft): **14.35**
Client: **Port of Seattle**	Water Depth (ft): **36.3**	Recovery Length (ft): **11.55**
Collection Date: **2/22/2010**	Surveyed Mudline Elevation (ft): **-29.4**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.3570 N** E/LONG: **122 20.6736 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC06-7.4-10 EW10-SC06-10-11.4		Mercury Archive	0 0	(SP) Damp, dense, dark gray, f-SAND and occasional pockets and stratified beds of SILT (ML) Moderate wood fragments (1"-long). @ 8.9': Wood chunk (3.5"-long, yellow) (SM) Damp, dense, dark gray, slightly silty, f-SAND and occasional laminated and stratified beds of SILT (ML). Moderate wood fragments. @ 11.4': Decomposed wood chunk (3"-long, cedar) End of core at 11.45'.	Transition Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.55/14.35 ft 80.5%

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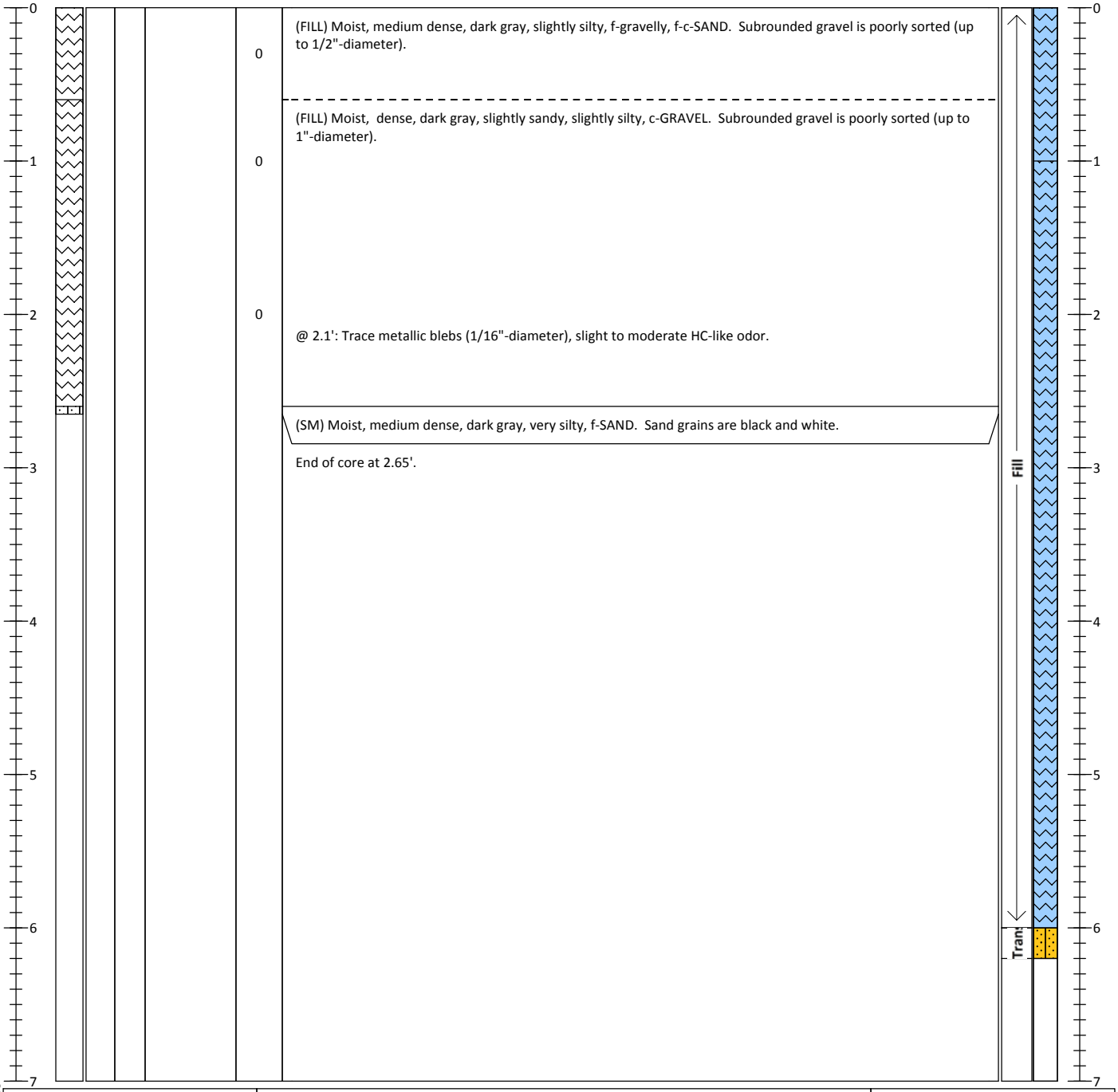
Sediment Core Log

CORE: EW10-SC07A

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.6**	Penetration Depth (ft): **7.5**
Client: **Port of Seattle**	Water Depth (ft): **22.5**	Recovery Length (ft): **2.85**
Collection Date: **2/23/2010**	Surveyed Mudline Elevation (ft): **-14.1**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.3657 N** E/LONG: **122 20.7259 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Fair**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1.1				0	(FILL) Moist, medium dense, dark gray, slightly silty, f-gravelly, f-c-SAND. Subrounded gravel is poorly sorted (up to 1/2"-diameter).	Fill
1.1–2.1				0	(FILL) Moist, dense, dark gray, slightly sandy, slightly silty, c-GRAVEL. Subrounded gravel is poorly sorted (up to 1"-diameter).	
2.1–2.65				0	@ 2.1': Trace metallic blebs (1/16"-diameter), slight to moderate HC-like odor.	
2.65–2.65					(SM) Moist, medium dense, dark gray, very silty, f-SAND. Sand grains are black and white.	
2.65					End of core at 2.65'.	



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Footnote(1): Attempt 1 of 2

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
2.85/7.5 ft = 38.0%

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Sediment Core Log

CORE: EW10-SC07B

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.3**	Penetration Depth (ft): **13.5**
Client: **Port of Seattle**	Water Depth (ft): **26.8**	Recovery Length (ft): **13**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-18.4**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.3678** E/LONG: **122 20.7202**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.1	EW10-SC07B-0.0-2.3		SVOC, PCB, Metals, TOC/TS, GS	0 0	(FILL) Damp, dense, dark brown to black, subrounded f-gravelly, m-c-SAND. @ 0.2-0.7': Bed of moist, soft to medium stiff, black, slightly sandy, gravelly, SILT (ML).	Fill
1.1–2.3	EW10-SC07B-0.0-2.3				(ML) Moist, medium stiff, black, slightly f-sandy, SILT and trace beds of slightly gravelly, SILT. @ 2': Wood chunk (3"-long)	Recent
2.3–3.4	EW10-SC07B-2.3-4		SVOC, PCB, Metals, TOC/TS, GS	0	(SM) Moist to damp, dense, dark gray, f-SAND, trace subrounded f-gravel (1/4"-diameter) and moderate pockets, and laminated and stratified beds (up to 1" thick) of damp, soft, olive gray, SILT (ML). Moderate wood fragments. Sand grains are multicolored and are red, beige, black, white, and gray	Native
4–4.5	4-4.5		Archive			
4.5–5	4.5-5		Archive	0	@ 4.4': Decomposed wood fragments (1"-long, orange) @ 4.5': Layer of decomposed wood @ 4.7': Layer of decomposed wood @ 4.9': Layer of decomposed wood	
5–5.5	5-5.5		Archive			
5.5–6	5.5-6		Archive		@ 5.8': Layer of wood	
6–8	EW10-SC07B-6-8		Archive	0	@ 7.4': Layer of wood @ 7.7': Layer of wood	

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Footnote(1): Attempt 2 of 2

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/13.5 ft = 96.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC07B

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.3**	Penetration Depth (ft): **13.5**
Client: **Port of Seattle**	Water Depth (ft): **26.8**	Recovery Length (ft): **13**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-18.4**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.3678** E/LONG: **122 20.7202**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC07B-8-10		Archive	0	(SM-ML) Damp, dense, dark gray, f-SAND and substantial pockets, and laminated and stratified beds of SILT (ML). @ 8.1': Layer of wood @ 8.3': Layer of wood	Native
9–12.25	EW10-SC07B-10-12.2		Archive	0	(ML) Damp, medium stiff, olive gray, clayey, SILT. Silt is smooth and homogenous, rolls easily. Trace decomposed organics. @ 12.1': Thin bed of f-SAND (SM) @ 12.2': Thin bed of f-SAND (SM)	
12.25–13.5					End of core at 12.25'.	

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Footnote(1): Attempt 2 of 2

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/13.5 ft = 96.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC08

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.1**	Penetration Depth (ft): **14.32**
Client: **Port of Seattle**	Water Depth (ft): **45.4**	Recovery Length (ft): **12.32**
Collection Date: **2/22/2010**	Surveyed Mudline Elevation (ft): **-36.1**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.4087 N** E/LONG: **122 20.6430 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC08-0-2		SVOC, PCB, Metals, TOC/TS, GS	0.1	(ML) Moist, medium stiff, black with olive gray mottling, slightly sandy, very clayey SILT. Silt is smooth and homogenous. Trace biota (worm) and rootlets. Moderate H2S odor.	Recent
2–4	EW10-SC08-2-4		SVOC, PCB, Metals, TOC/TS, GS	15.2 1.7	@ 2': Grades to soft @ 2.5': Grades to blocky. Trace shell fragments. Trace metallic sheen and moderate HC-like odor.	
4–6	EW10-SC08-4-6		Archive	0	(ML) Moist, soft, olive gray, slightly clayey, SILT. Silt is smooth and homogeneous. Trace fresh wood fragments (1"-long, yellow/brown). Trace HC-like odor. @ 6': Bone piece (2.5"-long)	
6–8	EW10-SC08-6-8		SVOC, PCB, Mercury, Cadmium	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.32/14.32 ft = 86.0%

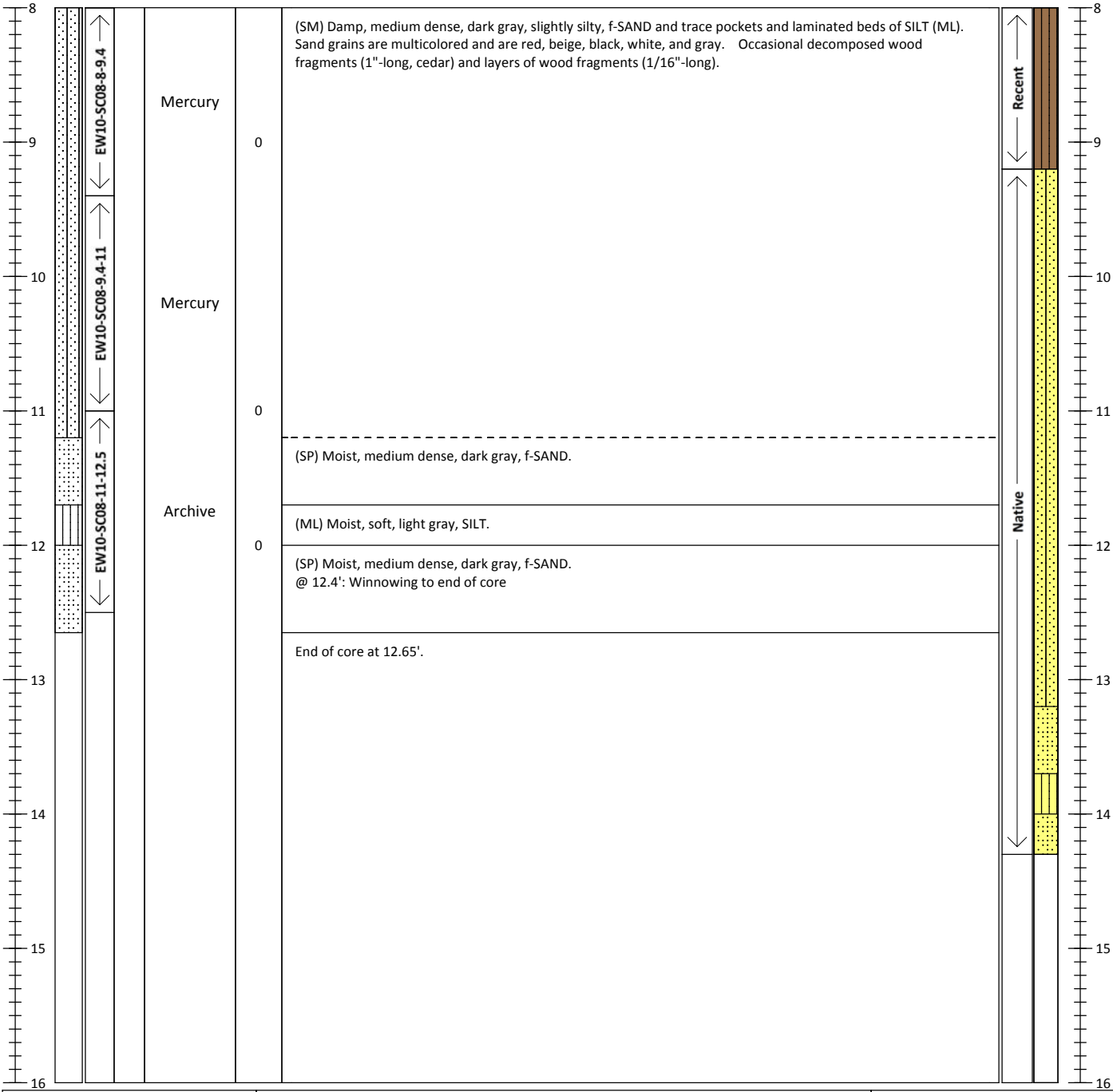
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC08

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.1**	Penetration Depth (ft): **14.32**
Client: **Port of Seattle**	Water Depth (ft): **45.4**	Recovery Length (ft): **12.32**
Collection Date: **2/22/2010**	Surveyed Mudline Elevation (ft): **-36.1**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.4087 N** E/LONG: **122 20.6430 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC08-8-9.4 EW10-SC08-9.4-11 EW10-SC08-11-12.5		Mercury Mercury Archive	0 0 0	(SM) Damp, medium dense, dark gray, slightly silty, f-SAND and trace pockets and laminated beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional decomposed wood fragments (1"-long, cedar) and layers of wood fragments (1/16"-long). (SP) Moist, medium dense, dark gray, f-SAND. (ML) Moist, soft, light gray, SILT. (SP) Moist, medium dense, dark gray, f-SAND. @ 12.4': Winnowing to end of core End of core at 12.65'.	Recent Native



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.32/14.32 ft = 86.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC09

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.3**	Recovery Length (ft): **13.1**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-40.4**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.4207 N** E/LONG: **122 20.5875 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0	EW10-SC09-0-2		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Wet to moist, soft, olive gray grading to black, m-sandy, clayey SILT. Trace organics, wood fragments (1"-long), and shell fragments. Strong H2S odor.	Recent
				2.5		
1				9.3	@ 0.9': Wood fragment (3"-long)	
					@ 1-1.2': Agglomerate of asphalt, barnacles and shells fused together (3.75"-long)	
				7.8		
2	EW10-SC09-2-4		SVOC, PCB, Metals, TOC/TS, GS	16.8	@ 2.3': Agglomerate of asphalt, barnacles and shells fused together (3"-long). Strong H2S odor	
3				3.7		
					@ 3.8': 1" Layer of wood fragments and fibers (2"-long)	
4				0.3	@ 4.1': Grades to fissured texture. Piece of subangular c-gravel (1"-diameter)	
5	EW10-SC09-4-6		Archive	0		
					@ 5.5': 1" layer of wood fragments (2"-long) and c-gravel (1.5"-diameter)	
6	EW10-SC09-6-7.2		SVOC, PCB, Mercury		@ 6.2': Layer of shell fragments (1/2"-diameter)	
					@ 6.8': Piece of glass (1"-long) and piece of flexible plastic (4"-long). Strong H2S odor	
7				0		
	EW10-SC09-7.2-9				(SP) Damp, medium dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	
8					(SP) Damp, medium dense, dark gray, f-SAND and moderate laminated and stratified beds of damp, medium stiff,	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC09

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.3**	Recovery Length (ft): **13.1**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-40.4**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.4207 N** E/LONG: **122 20.5875 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC09-7.2-9.2 EW10-SC09-9.2-11.2 EW10-SC09-11.2-12.5		Mercury Mercury Archive	0 0	(SP) Damp, medium dense, dark gray, f-SAND and moderate laminated and stratified beds of damp, medium stiff, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 11.8': Grades to trace fresh wood fragments (1/2"-long, orange) End of core at 12.5'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC10

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **45.0**	Recovery Length (ft): **13.1**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-37.2**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.4342 N** E/LONG: **122 20.7461 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.1	EW10-SC10-0-2.4		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, olive gray and black, slightly f-sandy, SILT.	Recent
1.1–1.4	EW10-SC10-0-2.4			0	(SM) Moist, soft to medium dense, black, silty, m-c-SAND, trace subrounded f-gravel (1/2"-diameter).	Recent
1.4–1.6	EW10-SC10-0-2.4			0	(GM) Moist, dense, black, m-sandy, subrounded c-GRAVEL (1"-diameter).	Fill
1.6–2.4	EW10-SC10-0-2.4				(ML) Moist, medium stiff, black, slightly f-m-sandy, cobbly (2.5"-diameter, subrounded), SILT.	Recent
2.4–3.0	EW10-SC10-2.4-4		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, medium stiff, black, SILT and trace pockets (1"-diameter) of olive gray SILT and occasional stratified beds of moist, medium dense, dark gray, f-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. @ 3': Trace shell fragments	Transition
3.0–3.7	EW10-SC10-2.4-4				(SP) Moist, medium dense to dense, dark gray, f-SAND. @ 3.7': Grades to f-gravelly, SAND. Gravel is subrounded (1/2"-diameter)	
3.7–4.1	EW10-SC10-2.4-4				@ 4.1' Grades to trace f-gravel	
4.1–5.0	EW10-SC10-4-6		PCB	0		
5.0–6.0	EW10-SC10-4-6				(SM-ML) Moist, dense, dark gray, slightly silty, f-vf-SAND and substantial laminated and stratified beds of damp, medium stiff, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
6.0–7.0	EW10-SC10-6-8		PCB	0		Native
7.0–8.0	EW10-SC10-6-8				(SM-ML) Moist, dense, dark gray, slightly silty, f-vf-SAND and substantial laminated and stratified beds of damp, medium stiff, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to void space from 7.9-8.9'. Per communication with collection team, it was handled as continuous.

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC10

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **45.0**	Recovery Length (ft): **13.1**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-37.2**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.4342 N** E/LONG: **122 20.7461 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC10-8-10		Archive	0	(SM-ML) Moist, dense, dark gray, slightly silty, f-vf-SAND and substantial laminated and stratified beds of damp, medium stiff, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 8.1': 1" Layer of decomposed wood fragments (1/2"-long) (SP) Moist, dense, dark gray, f-SAND and trace stratified beds of SILT (ML). @ 9': Grades to m-SAND	Native
9–11.45	EW10-SC10-10-11.3		Archive	0	@ 10.7': 1/2"-thick bed of olive gray, SILT (ML) @ 10.9': 1"-thick bed of olive gray, SILT (ML) @ 11.2': Pocket (1.5"-diameter) of olive gray, SILT (ML) @ 11.35': 1"-thick layer of wood pieces End of core at 11.45'.	

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to void space from 7.9-8.9'. Per communication with collection team, it was handled as continuous.

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC11

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.1**	Penetration Depth (ft): **13.85**
Client: **Port of Seattle**	Water Depth (ft): **46.7**	Recovery Length (ft): **10.25**
Collection Date: **2/23/2010**	Surveyed Mudline Elevation (ft): **-36.9**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.4425 N** E/LONG: **122 20.6761 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC11-0-2		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0 0 0	(ML) Moist, medium stiff, black, f-sandy, clayey SILT. Silt is smooth and homogenous. Trace biota (worm tubes) and shell debris at surface.	Recent
1–3	EW10-SC11-2-4	●	SVOC, PCB, Metals, TOC/TS, GS, Pesticides	5.7 8.5 25	@ 3.2': Piece of subrounded gravel (1"-diameter) @ 3.5': Grades to clayey, SILT. Silt is blocky	Recent
3–4.5	EW10-SC11-4-6			3.8	(SM) Moist, medium dense , dark gray, very silty, f-SAND, trace subrounded f-gravel (1/2"-diameter). Trace biota and wood fibers. Moderate HC-like odor.	Recent
4.5–5.5	EW10-SC11-4-6	●	SVOC, PCB, Mercury, Cadmium, DDT	0	(ML) Damp, medium stiff, olive gray, slightly clayey, SILT and occasional pockets and laminated beds of silty, poorly sorted SAND (SM). Silt is gummy and rolls easily. Trace wood fragments.	Transition
5.5–6	EW10-SC11-4-6				(SM) Damp, medium stiff, dark gray, silty, SAND.	Transition
6–8	EW10-SC11-6-8	●	Mercury	0	(SP) Damp, medium stiff, dark gray, f-SAND and trace laminated and stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, white, black, and gray.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to winnowing in sand layer.

Calculated Recovery
Recovery Length/Penetration Depth:
10.25/13.85 ft = 74.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC11

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14.55**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.1**	Penetration Depth (ft): **13.85**
Client: **Port of Seattle**	Water Depth (ft): **46.7**	Recovery Length (ft): **10.25**
Collection Date: **2/23/2010**	Surveyed Mudline Elevation (ft): **-36.9**	Process Date: **2/23/2010**
Contractor: **AMEC**	N/LAT: **47 34.4425 N** E/LONG: **122 20.6761 W**	Process Method: **Cut tube**
Vessel: **R/V Investigator**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Gary Maxwell**	Method/Tube ID: **MudMole/3.88" sq**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–10.7	EW10-SC11-8-9.9		Archive	0	(SP) Damp, medium stiff, dark gray, f-SAND and trace laminated and stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, white, black, and gray. @ 8.2-9.5': Winnowing	Native
10.7–16					End of core at 10.7'.	

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to winnowing in sand layer.

Calculated Recovery
Recovery Length/Penetration Depth:
10.25/13.85 ft = 74.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC12

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **48.4**	Recovery Length (ft): **12.6**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-39.0**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.5026 N** E/LONG: **122 20.7204 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC12-0-2		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, black with olive gray mottling, slightly f-sandy, very clayey, SILT. Silt is homogenous and smooth. Trace rootlets and fibers.	Recent
1–2	EW10-SC12-0-2			3.8	@ 1': Grades to slightly f-sand	Recent
2–3	EW10-SC12-2-3.1		SVOC, PCB, Metals, TOC/TS, GS	12.3	@ 2.6': 1/4"-thick layer of wood @ 3': 1/4"-thick thin bed of silty, SAND (SM)	Recent
3–4	EW10-SC12-3.1-5		Archive	2.2	(SM) Moist, dense, dark gray, slightly silty, f-SAND and trace stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace layers of wood. @ 3.5': Layer of wood	Native
4–5	EW10-SC12-3.1-5			0	@ 4.4': Layer of wood	Native
5–6	EW10-SC12-5-7		SVOC, PCB, Mercury	0	(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. @ 5.5': Moderate H2S odor	Native
6–7	EW10-SC12-5-7			0	@ 6.9': Grades to moderate pockets (2"-diameter) and beds (2"-thick) of moist, olive brown, SILT (ML). Silt texture is very smooth	Native
7–8	EW10-SC12-7-9		Archive		@ 7.7': Grades to SP only	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14 ft = 90.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC12

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **48.4**	Recovery Length (ft): **12.6**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-39.0**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.5026 N** E/LONG: **122 20.7204 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC12-7-9			0	(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Native
9–10	EW10-SC12-9-11.8		Archive	0		
10–11					@ 11-11.2': Grades to trace 1/2"-diameter pockets of SILT (ML)	
11–12					(SM) Damp, dark gray, dense, silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments (1"-long).	
12–16					End of core at 11.9'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14 ft = 90.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC13

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **1.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **51.3**	Recovery Length (ft): **11.8**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-48.9**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.5133 N** E/LONG: **122 20.5848 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.6	EW10-SC13-0-1.6		SVOC, PCB, Metals, TOC/TS, GS	0 0	(ML) Soft, moist, black with olive gray mottling, very clayey SILT. Trace shell fragments (1"-diameter).	Recent
1.6–4	EW10-SC13-1.6-4		SVOC, PCB, Metals, TOC/TS, GS	0	(FILL) Dense, damp, olive gray, subrounded very f-c-sandy, GRAVEL, trace subrounded cobbles (3"-diameter). Gravel and sand grains are green, beige, black, white, brown.	Fill
4–6.2	EW10-SC13-4-6.2		Archive	0		
6.2–8.8	EW10-SC13-6.2-8.8		Archive	8.5 1.8	(ML) Stiff, damp, olive gray with black mottling, SILT, trace vf-sand and moderate pockets, and laminated and stratified beds of silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Moderate H2S odor. @ 7.3': 2"-thick bed of black, SILT. Moderate wood fibers. Moderate HC-like odor	Fill Transition

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14 = 84.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC13

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **1.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **51.3**	Recovery Length (ft): **11.8**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-48.9**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.5133 N** E/LONG: **122 20.5848 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC13-6.2-8				(ML) Stiff, damp, olive gray with black mottling, SILT, trace vf-sand and moderate pockets, and laminated and stratified beds of silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Moderate H2S odor.	Transition
9–11	EW10-SC13-8.8-11.2		Archive	0 0	(SP) Dense, damp, dark gray, f-vf-SAND and occasional pockets and laminated beds of stiff, damp, olive gray, very vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments (1"-long), occasional shell fragments (1"-long).	Native
11–16					End of core at 11.2'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14 = 84.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC14

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **12.1**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-49.2**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.5532 N** E/LONG: **122 20.5913 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–3	EW10-SC14-0-2.8	✦	SVOC, PCB, Metals, TOC/TS, GS	0 3 3.3 0	(ML) Wet to moist, soft to medium stiff, olive gray with black mottling, slightly f-sandy, SILT. @ 0.2': Grades to SILT @ 1.2': Grades to gravelly, SILT (FILL) Moist, loose, dark gray, silty, sandy, c-f-GRAVEL (2.9"-diameter). (FILL) Moist, loose, dark gray, f-gravelly (2"-diameter), f-c-SAND. @ 2.1': Grades to slightly gravelly, f-c-SAND	Recent Fill
3–5.3	EW10-SC14-2.8-5.3		SVOC, PCB, Metals, TOC/TS, GS	0 0	(ML) Damp, stiff, olive gray, SILT and moderate pockets and laminated and stratified beds of damp, medium dense, dark gray, silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. @ 3': Grades to black @ 3.6': Grades to olive gray @ 4.5': 2"-diameter pocket of f-SAND (SM)	Transition
5.3–7.3	EW10-SC14-5.3-7.3		PCB	0	(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. @ 6.4': Grades to f-SAND and moderate laminated and stratified beds of olive gray SILT (ML). Silt is smooth and homogenous	Transition
7.3–8	EW10-SC14-7.3	✦		0		Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.1/14 ft = 86.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC14

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **12.1**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-49.2**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.5532 N** E/LONG: **122 20.5913 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC14-7.3-9.3		Archive	0	(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. (ML) Damp, stiff, olive gray, SILT and moderate laminated and stratified beds of silty, f-SAND (SM).	Native
9–11.5	EW10-SC14-9.3-11.5		Archive	0	@ 10.2': Grades to dry and blocky texture	
11.5–16					End of core at 11.5'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.1/14 ft = 86.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC15

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **14.35**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-42.2**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.5570 N** E/LONG: **122 20.7400 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC15-0-2.3		SVOC, PCB, Metals, TOC/TS, GS	0 0	(ML) Moist, soft, black with olive gray mottling, vf-sandy, clayey SILT. @ 1': Grades to f-sand @ 1.6': Grades to trace subrounded c-gravel (1"-diameter)	Recent
2–4	EW10-SC15-2.3-4		SVOC, PCB, Metals, TOC/TS, GS	0	(SM) Moist, medium dense, dark gray, silty, f-SAND and moderate laminated and stratified beds of moist, soft, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
4					VOID	
4–6	EW10-SC15-4-6		Archive	0	(SM) Moist, medium dense, dark gray, silty, f-SAND and moderate laminated and stratified beds of moist, soft, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 6': 1/2"-thick layer of decomposed wood fragments (1/4"-long, shredded)	
6–8	EW10-SC15-6-8		Archive	0	(SM) Moist, medium dense, dark gray, silty, f-SAND and moderate laminated and stratified beds of moist, soft, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
14.35/14 ft = 102.5%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC15

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **14.35**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-42.2**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.5570 N** E/LONG: **122 20.7400 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/DP**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC15-8-10		Archive	0	VOID (SP-ML) Moist, medium dense, dark gray, silty, f-SAND and substantial laminated and stratified beds of SILT (ML).	Native
9–10						
10–11	EW10-SC15-10-12		Archive	0		
11–12						
12–13	EW10-SC15-12-13.7		Archive	0		
13–14					End of core at 13.7'.	
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
14.35/14 ft = 102.5%

Sediment Core Log

CORE: EW10-SC16

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.8**	Penetration Depth (ft): **13.2**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **9.6**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-44.0**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.5630 N** E/LONG: **122 20.6339 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Disturbed**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.1	EW10-SC16-4-6		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Wet, soft, olive gray, slightly sandy, SILT.	Recent
1.1–1.4				1.6	(ML) Moist, soft, medium stiff, black, SILT. Silt is smooth and homogenous. Moderate H2S odor. @ 1.1': 1"-diameter pocket of sandy, SILT (ML) @ 1.4': Grades to occasional pockets, and laminated and stratified beds of silty, SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray	
1.4–2.0	EW10-SC16-6-8.2			1.3	(SM) Moist, medium dense, dark gray, slightly silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	
2.0–4.0			SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Damp, medium stiff, olive gray with black mottling, clayey, SILT. Silt is smooth and homogenous. @ 4.2': Grades to brownish gray in color. Slight H2S odor	
4.0–5.9	EW10-SC16-0-1.9		Mercury	0	(ML) Damp, medium stiff, black, slightly clayey, SILT and moderate pockets and laminated beds of silty, SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray.	
5.9–7.1					VOID	
7.1–8.2	EW10-SC16-1.9-4		Mercury	0	(SP) Damp, dense, dark gray, f-SAND and trace pockets of SILT (ML).	Transition
				0	(ML) Damp, medium stiff, black to olive gray, slightly vf-sandy, SILT. Moderate layers of rootlets and decomposed wood fragments.	
					(SM) Damp, dense, dark gray, slightly silty, vf-SAND and occasional stratified beds of black and olive gray, SILT (ML).	
8.2					End of core at 8.2'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2): Core quality is disturbed due to large void space from 6.2-7.1'.

Calculated Recovery
Recovery Length/Penetration Depth:
9.6/13.2 ft = 72.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC17

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **54.0**	Recovery Length (ft): **13.6**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-44.4**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.5672 N** E/LONG: **122 20.6887 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–8	EW10-SC17-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML) Wet to moist, soft, olive gray to black, slightly vf-sandy, very clayey SILT. Trace organic matter.	Recent
				11.7	@ 0.9': Grades to medium stiff. Silt has a smooth texture. HC-like odor and slight sheen	
	EW10-SC17-2-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	17.2		
				8.9		
				10.5	@ 2.2': Grades to damp, medium stiff, black, slightly clayey	
				3.2	@ 2.6': Grades to moist, medium stiff	
	EW10-SC17-4-6		Archive	3.5		
				0.5	@ 3.2': 2"-thick layer of fresh wood fragments (1"-long, orange)	
				0.5	@ 3.4': Grades to olive gray and black mottling	
				8.8		
	EW10-SC17-6-8		PCB, Mercury	20.8	@ 4.3': Grades to olive gray. Strong HC-like odor	
				3.2		
			Mercury		@ 6.5': Grades to dark gray, and trace laminated beds of olive gray, clayey, SILT. Silt has a fissured texture	
					@ 7': Piece of fresh wood (1/2"-long, yellow)	
					@ 7.5': Bone piece (1"-long) and wood fragment (1/2"-long)	
					@ 7.7': Grades to damp. Silt has a blocky texture	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC17

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **54.0**	Recovery Length (ft): **13.6**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-44.4**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.5672 N** E/LONG: **122 20.6887 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8						8
	EW10-SC17-8-10		Mercury	1.5	@ 8': Grades to olive gray and black mottling, slightly clayey. Silt rolls easily. Trace organic fibers and slight metallic sheen	Recent
9				0.8		9
				0		
10	EW10-SC17-10-11.5		Archive			10
11				0	@ 10.2': Grades to laminated and stratified beds of black, SILT and olive gray, slightly clayey, SILT. Silt has a fissured texture	Transition 11
12	EW10-SC17-11.5-13		Mercury	0	(SM) Damp, dense, dark gray, very silty, vf-SAND and trace pockets of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 11.9-12': Diagonal contact	Native 12
13				0	(ML-SM) Damp, stiff, dark gray, SILT and substantial pockets and laminated beds of silty, vf-SAND (SM).	13
					(SM) Damp, dense, dark gray, very silty, f-SAND.	
14					End of core at 13'.	14
15						15
16						16

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Sediment Core Log

CORE: EW10-SC18

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **55.5**	Recovery Length (ft): **13.6**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-42.9**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.6041 N** E/LONG: **122 20.7486 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC18-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 0	(ML) Moist, soft, black with olive gray mottling, vf-sandy, clayey SILT. Trace organic fibers and rootlets.	Recent
2–4	EW10-SC18-2-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	@ 2.3': Grades to pockets and stratified beds of moist, medium dense, dark gray to black, silty, f-SAND (SM). Slight H2S odor	Recent
4–4.5					VOID	Recent
4.5–5	EW10-SC18-4-6				(ML) Same as above @ 2.3'.	Native
5–6	EW10-SC18-4-6		SVOC, PCB, Mercury	0	(SM) Damp, dark gray, medium dense, slightly silty, vf-f-SAND and moderate pockets, and laminated and stratified beds of moist, soft, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace decomposed wood fragments (1/16"-long).	Native
6–8	EW10-SC18-6-8		PCB, Mercury	0	@ 7.9 - 8': void	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC18

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **55.5**	Recovery Length (ft): **13.6**
Collection Date: **2/26/2010**	Surveyed Mudline Elevation (ft): **-42.9**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.6041 N** E/LONG: **122 20.7486 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC18-8-10		Archive	0	(SM) Same as above @ 4.3'. @ 9.3': Piece of wood (1" x 3.75")	Native
9–10						
10–11	EW10-SC18-10-12.9		Archive	0	@ 10': Layer of decomposed wood fragments	
11–12				0		
12–13					End of core at 12.95'.	
13–14						
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC19

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.0**	Recovery Length (ft): **13.6**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-50.2**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.6202 N** E/LONG: **122 20.5930 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–2.5	EW10-SC19-0-2.5		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0 0	(ML) Moist, soft, black, clayey, very f-sandy, SILT. Silt is smooth and homogeneous. Trace worm tubes, wood fragments, and trace plastic piece (2"-long, amber color). Slight H2S odor.	Recent
2.5–4	EW10-SC19-2.5-4		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0	(SM) Moist, dense, dark gray, silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Transition
4–6	EW10-SC19-4-6		SVOC, PCB	0	@ 4.5': Grades to very silty, SAND (SM) (ML) Moist, stiff, olive gray, vf-sandy, SILT.	Transition
6–8	EW10-SC19-6-8		Archive	0		Transition

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

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Sediment Core Log

CORE: EW10-SC19

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.0**	Recovery Length (ft): **13.6**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-50.2**	Process Date: **3/1/2010**
Contractor: **MSS**	N/LAT: **47 34.6202 N** E/LONG: **122 20.5930 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC19-8-10		Archive	0	(ML) Moist, stiff, olive gray, vf-sandy, SILT. @ 8': Grades to vf-sandy, SILT and moderate laminated beds of silty, vf-SAND (SM) @ 8.8': Fresh wood fragment (3"-diameter)	Transition
9–10					(SM) Moist to damp, dense, dark gray, slightly silty, vf-SAND and occasional laminated beds of olive gray, sandy, SILT (ML).	Native
10–11				0	@ 11': Grades to stratified beds (3"-thick) of sandy, SILT (ML)	
11–12				0		
12–13					End of core at 13'.	
13–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Sediment Core Log

CORE: EW10-SC20

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.0**	Recovery Length (ft): **12.8**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-53.1**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 34.6303 N** E/LONG: **122 20.6128 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC20-0.4-2.4		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, dark gray, SILT. (SAND COVER) Moist, medium dense, light brown, f-c-SAND. Sand grains are poorly sorted and are brown, green, beige, gray, and white. @ 0.3': Grades to dark gray	Sand Cov
1–2	EW10-SC20-0.4-2.4		SVOC, PCB, Metals, TOC/TS, GS	0	(ML-SM) Moist, medium stiff, olive gray with dark gray mottling, vf-sandy, SILT and substantial laminated and stratified beds of moist, dense, dark gray, silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray.	Transition
2–3	EW10-SC20-2.4-4.4		SVOC, PCB, Metals, TOC/TS, GS	0	@ 2.7': Grades to vf-sandy, SILT and moderate laminated beds of silty, vf-SAND. Trace shell fragments .	
3–4	EW10-SC20-2.4-4.4		SVOC, PCB, Metals, TOC/TS, GS	0		
4–5	EW10-SC20-4.4-6.4		Archive	0	(ML) Damp, stiff, olive gray, slightly, vf-sandy, SILT.	
5–6	EW10-SC20-4.4-6.4		Archive	0		
6–7	EW10-SC20-6.4-8.5		Archive	0	@ 6.4': Grades to moderate decomposed wood fibers @ 8.5-8.8': Diagonal contact	
7–8	EW10-SC20-6.4-8.5		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.8/14 ft = 91.4%

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Sediment Core Log

CORE: EW10-SC20

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.0**	Recovery Length (ft): **12.8**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-53.1**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 34.6303 N** E/LONG: **122 20.6128 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC20-8.5-10.5 EW10-SC20-10.5-12.5		Archive Archive	0 0 0	(ML) Damp, stiff, olive gray, slightly, vf-sandy, SILT. @ 8.5-8.8': Diagonal contact (SP-SM) Damp, dense, dark gray, vf-f-SAND and substantial laminated and stratified beds of damp, dense, olive gray, very silty, vf-SAND (SM). Trace wood fibers (2"-long). Sand grains are multicolored and are red, beige, black, white, and gray. @ 10.2': Grades to trace laminated beds of silty, vf-SAND (SM) End of core at 12.5'.	Transition Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.8/14 ft = 91.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC21

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **56.7**	Recovery Length (ft): **13.4**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-50.6**	Process Date: **2/25/2010**
Contractor: **MSS**	N/LAT: **47 34.6569 N** E/LONG: **122 20.5931 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.4	EW10-SC21-0-2		SVOC, PCB, Metals, TOC/TS, GS	6.3 11.1	(ML) Moist, soft, black, f-sandy, SILT. Trace organic fibers (1/4"-long). Moderate H2S odor.	Recent
1.4–4.6	EW10-SC21-2-4		SVOC, PCB, Metals, TOC/TS, GS	0 0	(ML) Moist, soft, olive gray, f-sandy, SILT, trace f-gravel and moderate laminated and stratified beds of moist, medium dense, black, silty, f-SAND (SM). Trace worm tubes. Slight HC-like odor. @ 2.1': Plastic debris (2"-long)	Transition
4.6–5.2	EW10-SC21-4-5.3		Archive	0.5 0 0	(ML) Moist, soft, black, m-sandy, SILT. Moderate HC-like odor, trace metallic sheen. @ 5-5.2': Diagonal contact	
5.2–7.8	EW10-SC21-5.3-7.8		SVOC, PCB, Mercury	0	(ML) Damp, stiff, olive gray, SILT, trace vf-sand and trace laminated beds of dark gray, f-SAND (SM). @ 6': Grades to sandy, SILT @ 7.3-7.8': Diagonal contact	
7.8–8	EW1				(SP) Damp, dense, dark gray, f-SAND and trace laminated beds of damp, stiff, olive gray, very vf-sandy, SILT (ML).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.4/14 ft = 95.7%

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Sediment Core Log

CORE: EW10-SC21

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **56.7**	Recovery Length (ft): **13.4**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-50.6**	Process Date: **2/25/2010**
Contractor: **MSS**	N/LAT: **47 34.6569 N** E/LONG: **122 20.5931 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC21-7.8-10		Archive	0	(SP) Damp, dense, dark gray, f-SAND and trace laminated beds of damp, stiff, olive gray, very vf-sandy, SILT (ML). Trace wood fragments.	Native
	EW10-SC21-10-12		Archive	0		
	EW10-SC21-12-13.1		Archive	0	(SP-ML) Damp, dense, dark gray, f-SAND and substantial laminated and stratified beds of SILT (ML).	
					End of core at 13.1'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.4/14 ft = 95.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC22

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **56.7**	Recovery Length (ft): **13.6**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-53.2**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.6681 N** E/LONG: **122 20.6982 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC22-0-1.9	✦	SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, olive gray with black mottling, slightly f-sandy, SILT.	Recent
					(SM) Moist, medium dense, dark gray, silty, SAND and occasional pockets and laminated beds of slightly f-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood layers (1/4"-long, shredded).	
1–2				0	(ML) Moist, medium stiff, olive gray, slightly clayey, SILT and moderate laminated and stratified beds of silty, SAND (SM). Trace layers of wood and wood piece (3.5"-long).	Transition
2–4	EW10-SC22-1.9-4		SVOC, PCB, Metals, TOC/TS, GS	0	(SP) Moist to damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace layers of wood fragments (1/4"-long, yellow).	Native
4–6	EW10-SC22-4-6	✦	Archive	0	@ 4.5': Grades to f-SAND and moderate pockets, and laminated and stratified beds of slightly clayey, SILT (ML)	
6–8	EW10-SC22-6-8		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft 97.1%

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Sediment Core Log

CORE: EW10-SC22

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **56.7**	Recovery Length (ft): **13.6**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-53.2**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.6681 N** E/LONG: **122 20.6982 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC22-0-1.9	✦	SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, olive gray with black mottling, slightly f-sandy, SILT.	Recent
					(SM) Moist, medium dense, dark gray, silty, SAND and occasional pockets and laminated beds of slightly f-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood layers (1/4"-long, shredded).	
1–2				0	(ML) Moist, medium stiff, olive gray, slightly clayey, SILT and moderate laminated and stratified beds of silty, SAND (SM). Trace layers of wood and wood piece (3.5"-long).	Transition
2–4	EW10-SC22-1.9-4		SVOC, PCB, Metals, TOC/TS, GS	0	(SP) Moist to damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace layers of wood fragments (1/4"-long, yellow).	Native
4–6	EW10-SC22-4-6	✦	Archive	0	@ 4.5': Grades to f-SAND and moderate pockets, and laminated and stratified beds of slightly clayey, SILT (ML)	
6–8	EW10-SC22-6-8		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft 97.1%

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Sediment Core Log

CORE: EW10-SC23

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **56.7**	Recovery Length (ft): **13.5**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-15.2**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.6887 N** E/LONG: **122 20.4333 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC23-0-1.3		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 0 7.8	(ML) Moist, soft, olive gray with black mottling, slightly f-sandy, SILT. Trace wood fragments (1"-long) at surface. (SM) Moist, medium dense, dark gray, slightly silty, SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Occasional wood fragments (1"-long), trace shell fragments (crab).	Recent
1–3.2	EW10-SC23-1.3-3.2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	68 12.5 22	(ML) Moist, medium stiff, black, clayey SILT and trace laminated and stratified beds of silty, SAND (SM). Moderate layers of decomposed and fresh (orange) wood (up to 3"-long), trace intact shells. Moderate to strong H2S odor and slight HC-like odor, slight sheen upon homogenization.	Transition
3.2–5	EW10-SC23-3.2-5		Archive	5 0.5	(SM) Moist, medium dense, dark gray, silty, f-SAND and moderate pockets (2"-diameter) of damp, soft, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Moderate wood fragments (2"-long). Moderate H2S odor. @ 3.8': Piece of fresh wood (3" x 1/2", orange). Slight metallic sheen VOID (SM) Same as above @ 3.2'.	
5–7	EW10-SC23-5-7		Archive	0	(ML-SM) Damp, stiff, olive gray, SILT and trace laminated and stratified beds of SAND (SM and SP). Silt is smooth and homogenous. Occasional decomposed wood fragments (5"-long). @ 6.5': Diagonal thin bed of silty, SAND (SM)	
7–8	EW10-SC23-7-9		Mercury	0	@ 7.6': 2"-thick bed of f-SAND (SP)	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.5/14 ft = 96.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC23

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **56.7**	Recovery Length (ft): **13.5**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-15.2**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.6887 N** E/LONG: **122 20.4333 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC23-7-9				VOID	Transition
9–10	EW10-SC23-9-11		SVOC, PCB, Metals, Mercury	0	(ML) Same as above @ 4.7'. @ 8.6': Diagonal thin bed of silty, SAND (SM) @ 8.8': Grades to SILT and moderate laminated beds of silty, SAND (SM)	
10–11					(SM) Damp, dense, dark gray, silty, f-SAND and trace laminated beds of SILT (ML). Trace layers of wood (1/2"-long).	Native
11–12	EW10-SC23-11-12.9		Mercury	0	(ML) Damp, stiff, olive gray, clayey, SILT and occasional laminated and stratified beds of silty, f-m-SAND (SM). Trace wood fragments (3" x 3/4").	
12–13				0	(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments (1/4"-long).	
					(ML) Damp, stiff, olive gray, SILT.	
					(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments (3"-long).	
13–16					End of core at 12.9'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.5/14 ft = 96.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC24

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.0**	Recovery Length (ft): **13.5**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-47.4**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.6917 N** E/LONG: **122 20.5931 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC24-0-2		SVOC, PCB, Metals, TOC/TS, GS	2	(ML) Moist, soft, olive gray, f-sandy, clayey SILT. Strong H2S odor. @ 0.5': Bed of m-SAND (SM) @ 1.2': Piece of wood (2" x 2")	Recent
2–4.7	EW10-SC24-2-4.7		SVOC, PCB, Metals, TOC/TS, GS	11.5 8.5 5.7 0.1	@ 1.5': Grades to black @ 2': Grades to medium stiff, slightly clayey, SILT and trace laminated beds of silty, SAND (SM) and trace pockets of light gray, SILT (ML) @ 2.6': Shell fragment (1.5"-long) @ 4': Grades to trace f-gravel and moderate laminated beds of silty, SAND (SM) @ 4.7': Grades to trace c-gravel (1"-diameter)	Recent
4.7–6	EW10-SC24-4.7-6		Archive	1.4	(SM) Moist, medium dense, dark gray, silty, f-SAND and moderate pockets, and laminated and stratified beds of slightly sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 4.9': Grades to trace c-gravel (1.5"-diameter)	Transil
6–8	EW10-SC24-6-8		SVOC, PCB, Mercury	1.2 0.4 0	(ML) Damp, stiff, olive gray, slightly clayey, SILT and trace laminated beds of silty, SAND (SM). Silt is smooth and homogenous.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.5/14 ft = 96.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC24

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.0**	Recovery Length (ft): **13.5**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-47.4**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.6917 N** E/LONG: **122 20.5931 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC24-8-10		Archive	0	(ML) Damp, stiff, olive gray, slightly clayey, SILT and trace laminated beds of silty, SAND (SM). Silt is smooth and homogenous.	Native
9–10					@ 10.8': Grades to moderate laminated beds of silty, SAND (SM)	
10–11	EW10-SC24-10-12		Archive	0		
11–12						
12–13	EW10-SC24-12-13.1		Archive	0		
13–16					End of core at 13.1'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.5/14 ft = 96.4%

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Sediment Core Log

CORE: EW10-SC25

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **62.2**	Recovery Length (ft): **13**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-52.2**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.6997 N** E/LONG: **122 20.6464 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC25-0.8-2.8		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Wet to moist, soft, olive gray, slightly f-m-sandy, SILT.	Recent
					(SAND COVER) Moist, loose, light brown, vf-vc-SAND. Sand grains are poorly sorted and are brown, green, beige, gray, and white.	Sand Cov
1–2				0	(SM) Moist, medium dense, dark gray, very silty, c-gravelly, f-SAND. Sand grains are black, white, and gray. Gravel is poorly sorted (1" x 3").	Transitio
					(SM) Damp, dense, dark gray, slightly silty, SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Native
2–3					(ML) Damp, stiff, olive gray, sandy, SILT and trace laminated and stratified beds of soft, light gray SILT (ML).	
3–4	EW10-SC25-2.8-4.8		SVOC, PCB, Metals, TOC/TS, GS	0	@ 3.7-4.1': Bed of soft, light gray, SILT (ML)	
					@ 4.7': Thin bed of light gray, SILT (ML)	
4–5						
5–6	EW10-SC25-4.8-6.8		Archive	0	(ML-SM) Damp, medium stiff, olive gray, slightly clayey, SILT and substantial laminated and stratified beds of slightly silty, SAND (SM).	
6–7					(ML) Damp, stiff, olive gray, slightly clayey, SILT and moderate laminated and stratified beds of slightly silty, SAND (SM).	
7–8	EW10-SC25-6.8-8.8		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/14 ft = 92.9%

Sediment Core Log

CORE: EW10-SC25

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **62.2**	Recovery Length (ft): **13**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-52.2**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.6997 N** E/LONG: **122 20.6464 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC25-6.8-8				(ML) Damp, stiff, olive gray, slightly clayey, SILT and moderate laminated and stratified beds of slightly silty, SAND (SM).	Native
9–10	EW10-SC25-8.8-10.8		Archive	0	(ML) Damp, stiff, olive gray, slightly clayey, SILT. @ 9.1': Grades to blocky texture (ML-SM) Damp, stiff, olive gray, slightly clayey, SILT and substantial laminated and stratified beds of slightly silty, SAND (SM).	
10–11						
11–12	EW10-SC25-10.8-12.8		Archive	0	(ML) Damp, stiff, olive gray, slightly clayey, SILT and moderate laminated beds of slightly silty, SAND (SM).	
12–13				0	(ML) Damp, stiff, olive gray, slightly clayey, SILT. End of core at 12.8'.	
13–14						
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/14 ft = 92.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC26

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **55.0**	Recovery Length (ft): **13.2**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-51.5**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.7063 N** E/LONG: **122 20.7443 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2.7	EW10-SC26-0-2.7		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 0	(SP) Damp, medium dense, dark gray, vf-f-SAND and moderate pockets (1/2"-diameter), and laminated and stratified beds of damp, medium stiff, black to olive gray, slightly vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fibers and fragments (1"-long).	Native
2.7–4	EW10-SC26-2.7-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML-SM) Damp, stiff, olive gray with black mottling, vf-sandy, SILT and substantial pockets (1"-diameter), and laminated and stratified beds of damp, dense, dark gray, silty, vf-SAND (SM).	
4–6	EW10-SC26-4-6		Archive	0		
6–8	EW10-SC26-6-8		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC26

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **55.0**	Recovery Length (ft): **13.2**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-51.5**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.7063 N** E/LONG: **122 20.7443 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC26-8-10		Archive	0	(ML-SM) Damp, stiff, olive gray with black mottling, vf-sandy, SILT and substantial pockets (1"-diameter), and laminated and stratified beds of damp, dense, dark gray, silty, vf-SAND (SM).	Native
9–12.6	EW10-SC26-10-12.6		Archive	0 0 0		
12.6–13					End of core at 12.6'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC27

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **36.6**	Recovery Length (ft): **13.2**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-27.6**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7218 N** E/LONG: **122 20.4839 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.6	EW10-SC27-0-2		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Damp, soft, black with olive gray mottling, vf-sandy, very clayey, SILT. Trace fresh wood fragments (brown). Moderate H2S odor and trace metallic sheen when homogenized.	Recent
1.6–2.4	EW10-SC27-2-4		SVOC, PCB, Metals, TOC/TS, GS	32.5 36.2 15 5.1 9 2.1	@ 1.6': 1"-thick bed of damp, soft, black, slightly vf-sandy, SILT (ML). Moderate decomposed wood fibers	
2.4–4.5	EW10-SC27-4-6		Archive	0.3	@ 2.4': Grades to damp, medium stiff, black with olive gray mottling, SILT, trace vf-sand. Trace decomposed wood fibers (black). Slight HC-like odor	
4.5–7.7	EW10-SC27-6-7.7		SVOC, PCB, Metals, Mercury	1	@ 4.5': Intact shell (3"-diameter)	
7.7–8	EW10-			4.3	(SM) Damp, dense, dark gray, silty, vf-SAND and trace pockets (3"-diameter) of damp, stiff, light gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 7.9 - 8': Void	

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Footnote(1): Attempt 1 of 1.

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC27

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **14**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **36.6**	Recovery Length (ft): **13.2**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-27.6**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7218 N** E/LONG: **122 20.4839 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC27-7.7-10 EW10-SC27-10-12.5		Mercury Mercury	0 0 0	(SM) Same as above @ 7.7'. @ 9.7': 1"-thick layer of decomposed wood fragments (3"-long) @ 10.3': 1"-thick layer of shell fragments (ML) Damp, stiff, olive gray, SILT, trace vf-sand and moderate laminated and stratified beds of damp, dense, dark gray, silty, vf-SAND (SM). Trace wood fragments (1"-long). End of core at 12.5'.	Native

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Footnote(1): Attempt 1 of 1.

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC28

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **11.9**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-53.1**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.7458 N** E/LONG: **122 20.6599 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
				0	(ML) Moist, soft, olive gray with black mottling, slightly f-m-sandy to f-m-sandy, SILT.	Recent
				0	(SAND COVER) Moist, loose, light brown, vf-vc-SAND. Sand grains are poorly sorted and are brown, green, beige, gray, and white.	Sand Cover
	EW10-SC28-1-3		SVOC, PCB, Metals, TOC/TS, GS	2.3	(ML) Moist, soft, medium stiff, black, very clayey, SILT. Silt is homogenous, blocky, rolls easily, and smooth. Trace wood fragments (3"-long). Slight HC-like odor.	Recent
				0.6		
	EW10-SC28-3-5		SVOC, PCB, Metals, TOC/TS, GS	2.4		
				12		
				8	@ 3.8': Grades to slightly vf-sand. Moderate rootlets (1/4"-long)	
				50		
	EW10-SC28-5-6.2		Archive	4.5	@ 5.2': HC-like odor, slight metallic sheen	
				2.6	@ 5.3': Grades to vf-sandy, SILT	
				20	@ 6.2': Pocket (1.5"-diameter) of SAND (SP)	
	EW10-SC28-6.2-8		SVOC, PCB, Mercury	0.5	(ML) Damp, stiff, olive gray, slightly clayey, SILT. Silt is smooth and homogenous.	Transition

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.9/14 ft = 85.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC28

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.0**	Recovery Length (ft): **11.9**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-53.1**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.7458 N** E/LONG: **122 20.6599 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC28-8-10		Mercury	9.9	(SM) Damp, dense, dark gray, slightly silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Transition
9–10	EW10-SC28-8-10		Mercury		(ML) Damp, stiff, olive gray, slightly clayey, SILT. @ 8.9': Grades to fissured texture. HC-like odor	Transition
10–11	EW10-SC28-10-11.7		Mercury	9.3	(ML) Damp, medium stiff, olive gray, slightly clayey, SILT and moderate pockets, and laminated and stratified beds of damp, medium dense, dark gray, vf-SAND (SP). Trace piece of plastic (4" x 2").	Native
11–12	EW10-SC28-10-11.7		Mercury	0	End of core at 11.7'.	Native
12–16						Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.9/14 ft = 85.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC29

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **2.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **13.7**	Recovery Length (ft): **12.4**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-10.7**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7537 N** E/LONG: **122 20.5811 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC29-0-2		SVOC, PCB, Metals, TOC/TS, GS	0.4 26.4 38.1 7	(ML) Moist, soft, black with olive gray mottling, very clayey, vf-sandy, SILT. Silt is smooth and homogenous. Trace intact shell fragments (2"-long) and occasional wood fibers and fragments (1.5"-long). Moderate H2S odor. @ 1.7': Grades to medium stiff	Recent
2–4	EW10-SC29-2-3.9		SVOC, PCB, Metals, TOC/TS, GS	77.8 100 80 30		Recent
4–6	EW10-SC29-3.9-6.4		Archive	77 15 14 17 6	(FILL) Moist, medium dense, black to olive gray, f-c-GRAVEL, trace silt. Gravel is angular (1"-diameter, black). Slight HC-like odor.	Fill
6–8	EW10-SC29-6.4-8		Archive	12.3 4.4 9.3 1 0.8	(ML) Damp, medium stiff, light gray, SILT, trace vf-sand. Trace HC-like odor. @ 6.7': Grades to black, occasional subangular gravel (1/2"-diameter), trace decomposed wood fragments (2.5"-long) and shell fragments. Trace rainbow sheen florets	Recent

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.4/14 ft = 88.6%

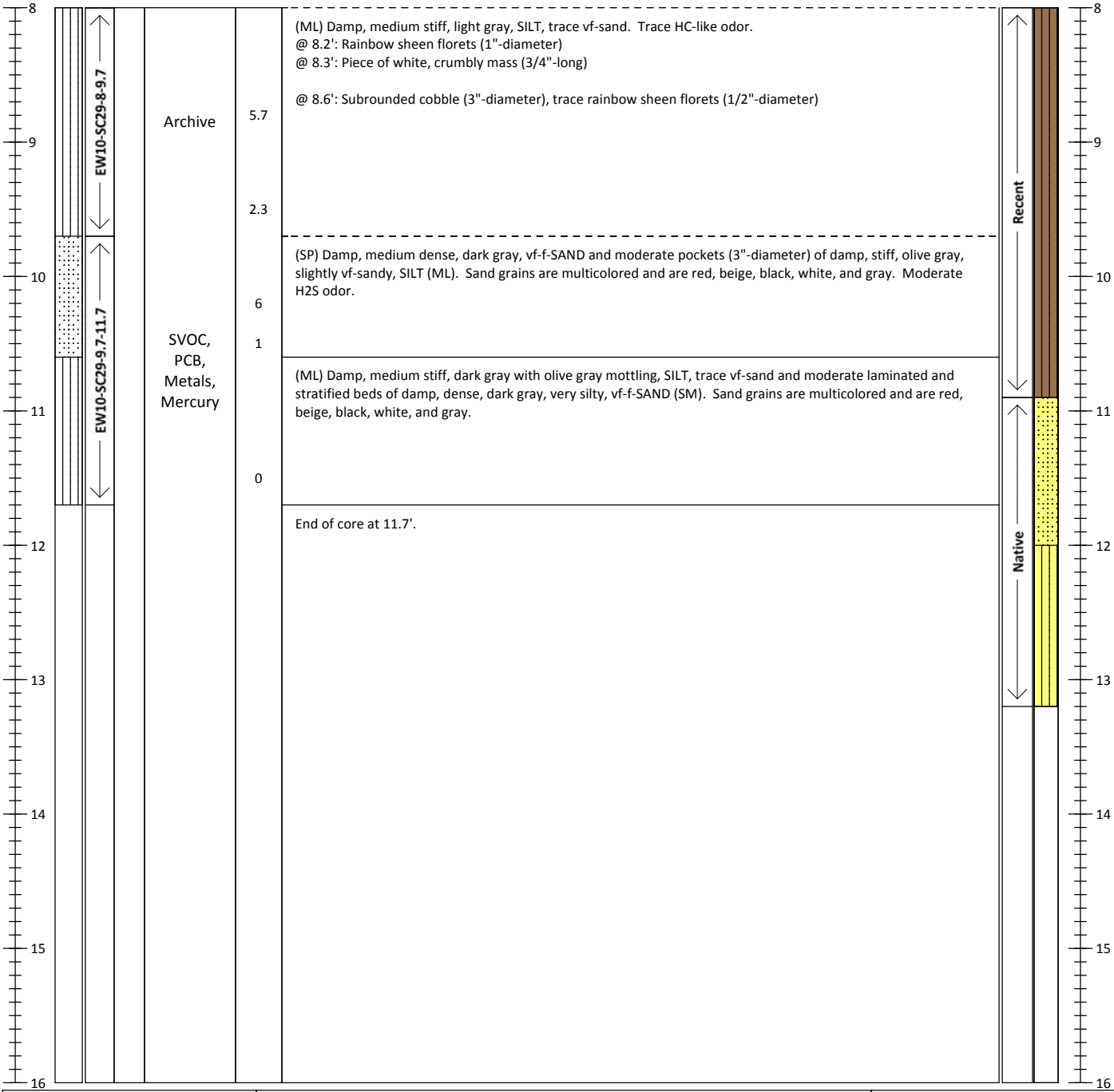
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC29

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **2.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **13.7**	Recovery Length (ft): **12.4**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-10.7**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7537 N** E/LONG: **122 20.5811 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9.7	EW10-SC29-8-9.7		Archive	5.7 2.3	(ML) Damp, medium stiff, light gray, SILT, trace vf-sand. Trace HC-like odor. @ 8.2': Rainbow sheen florets (1"-diameter) @ 8.3': Piece of white, crumbly mass (3/4"-long) @ 8.6': Subrounded cobble (3"-diameter), trace rainbow sheen florets (1/2"-diameter)	Recent
9.7–11.7	EW10-SC29-9.7-11.7		SVOC, PCB, Metals, Mercury	6 1	(SP) Damp, medium dense, dark gray, vf-f-SAND and moderate pockets (3"-diameter) of damp, stiff, olive gray, slightly vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Moderate H2S odor.	
				0	(ML) Damp, medium stiff, dark gray with olive gray mottling, SILT, trace vf-sand and moderate laminated and stratified beds of damp, dense, dark gray, very silty, vf-f-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
					End of core at 11.7'.	



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.4/14 ft = 88.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC30

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.3**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.5**	Recovery Length (ft): **13.7**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-43.8**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7681 N** E/LONG: **122 20.5156 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC30-0-2	●	SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, olive gray with black mottling, vf-sandy, clayey, SILT. Silt is smooth and homogenous.	Recent
				0	@ 1': Grades to stiff	
					@ 1.4': One subangular c-gravel (2"-diameter)	
2–4	EW10-SC30-2-4.3		SVOC, PCB, Metals, TOC/TS, GS	0	@ 3.7': 1/2"-thick layer of decomposed wood fragments (up to 2"-long, black)	
					@ 4.1': Piece of fresh wood (3"-long, yellow)	
4–4.5					VOID	
4.5–5.5	EW10-SC30-4.3-6			13.5	(ML) Same as above @ 0'.	Native
				9.2	(ML-SM) Damp, stiff, olive gray, slightly vf-sandy, SILT and substantial pockets (1"-diameter), and laminated and stratified beds of damp, medium dense, dark gray, very silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Slight H2S odor.	
			PCB, Mercury	4.6		
				0.6	@ 5.7': 1/2"-thick layer of decomposed wood (up to 1"-long, black)	
5.5–8	EW10-SC30-6-8	●	Mercury	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.7/14 ft = 97.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC30

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.3**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.5**	Recovery Length (ft): **13.7**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-43.8**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7681 N** E/LONG: **122 20.5156 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC30-8-9.7		Archive	0	(ML-SM) Damp, stiff, olive gray, slightly vf-sandy, SILT and substantial pockets (1"-diameter), and laminated and stratified beds of damp, medium dense, dark gray, very silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Slight H2S odor.	Native
9–12	EW10-SC30-9.7-12	✦	Archive	0	(SM) Damp, dense, dark gray, slightly silty, f-vf SAND and trace laminated beds of damp, medium stiff, olive gray, very vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fibers (up to 1"-long).	
12–13.2	EW10-SC30-12-13.2		Archive	0	(ML) Damp, still, olive gray, slightly vf-sandy, SILT and occasional pockets (1/2"-diameter), and laminated and stratified beds of damp, dense, dark gray, very silty, vf-SAND (SM).	
13.2–16					End of core at 13.2'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.7/14 ft = 97.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC31

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **26.8**	Recovery Length (ft): **13.1**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-54.7**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.7676 N** E/LONG: **122 20.7128 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
				0	(SAND COVER) Moist, loose, light gray, vf-vc-SAND. Sand grains are poorly sorted and are brown, green, beige, gray, and white.	Sand Cover
	EW10-SC31-0.7-2.7		SVOC, PCB, Metals, TOC/TS, GS	0 0.1 0	(SM) Moist, medium dense, dark gray, silty, vf-SAND and moderate pockets and laminated beds of moist, medium stiff, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood (up to 1/4"-long). Slight H2S odor.	Native
	EW10-SC31-2.7-5.3		SVOC, PCB, Metals, TOC/TS, GS		(SM-ML) Moist, medium dense, dark gray, very silty, f-SAND and substantial pockets (up to 3"-diameter) of olive gray, SILT (ML). (ML) Damp, medium stiff, olive gray, slightly clayey, SILT and trace laminated beds of silty, f-SAND (SM). Silt is smooth and homogenous and rolls easily. Sand grains are multicolored and are red, beige, black, white, and gray. Trace shell fragments.	
				0	(SM) Moist to damp, medium dense, dark gray, slightly silty, vf-SAND and trace pockets and stratified beds of slightly clayey, SILT (ML).	
	EW10-SC31-5.3-7.3		Archive		(ML) Damp, medium stiff, black, slightly clayey, SILT. @ 6': Diagonal contact (SM) Moist to damp, dense, dark gray, very silty, SAND and moderate pockets, and laminated and stratified beds of slightly clayey, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
	7.3-9.3			0	(SP) Damp, dense, dark gray, f-SAND and occasional laminated and stratified beds of SILT (ML).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC31

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **26.8**	Recovery Length (ft): **13.1**
Collection Date: **3/5/2010**	Surveyed Mudline Elevation (ft): **-54.7**	Process Date: **3/8/2010**
Contractor: **MSS**	N/LAT: **47 34.7676 N** E/LONG: **122 20.7128 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	7.3-9.3		Archive	0	(SP) Damp, dense, dark gray, f-SAND and occasional laminated and stratified beds of SILT (ML). @ 9.8': Grades to vf-m SAND	Native
9–12	EW10-SC31-9.3-11.3		Archive	0	(ML) Damp to dry, stiff, olive gray, slightly clayey, SILT. Silt is smooth and homogenous, rolls easily.	
11–12	11.3-12.3		Archive	0	@ 12.0': Thin bed of silty, SAND (SM) @ 12.2': Thin bed of silty, SAND (SM)	
					End of core at 12.3'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC32

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **40.5**	Recovery Length (ft): **13.9**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-37.5**	Process Date: **3/3/2010**
Contractor: **MSS**	N/LAT: **47 34.7778 N** E/LONG: **122 20.6173 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1.4	EW10-SC32-0-2		SVOC, PCB, Metals, TOC/TS, GS	6.3 15.2 59 135	(ML) Moist, soft, black with olive gray mottling, very clayey, SILT, trace vf-sand. Silt is smooth and homogenous. Trace wood fibers. Moderate HC-like odor, moderate H2S odor, trace metallic sheen florets (up to 1/2"-diameter). @ 1.4': Grades to medium stiff. Silt is homogenous and blocky.	Recent
2–3.4	EW10-SC32-2-4		SVOC, PCB, Metals, TOC/TS, GS	NA		
4–5.4	EW10-SC32-4-6		Archive	NA		
6–7.4	EW10-SC32-6-8.9		Archive	NA		

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Footnote(1): Attempt 1 of 1

Footnote (2): PID measurements not available due to instrument malefunction.

Calculated Recovery
Recovery Length/Penetration Depth:
13.9/14 ft = 99.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC33

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **2.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **34.4**	Recovery Length (ft): **13.4**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-30.9**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.7820 N** E/LONG: **122 20.5744 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC33-8-9.8		Mercury	0	(SP) Damp, dense, dark gray, vf-SAND and occasional pockets (up to 2"-diameter) of damp, stiff, olive gray, vf-sandy SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional decomposed wood layers (up to 3"-long, orange) and trace shell fragments. @ 8.3': Layer of decomposed wood (2"-thick) @ 9.1': Layer of decomposed wood (2"-thick @ 9.5': Layer of decomposed wood (2"-thick)	Native
9–13	EW10-SC33-9.8-12 EW10-SC33-12-13		Archive Archive	0 0	(ML) Damp, stiff, olive gray, vf-sandy, SILT. Occasional laminated and stratified beds of moist, medium dense, dark gray, silty, vf-SAND (SM). End of core at 13'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.4/14 ft = 95.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC33

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **2.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **34.4**	Recovery Length (ft): **13.4**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-30.9**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.7820 N** E/LONG: **122 20.5744 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.8	EW10-SC33-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 1.8	(ML) Moist, soft, black with olive gray mottling, f-sandy, clayey, SILT. Occasional biota (worm tubes), trace shell fragments, trace plastic piece (1"-long). @ 0.6': Grades to medium stiff. Trace H2S odor	Recent
1.8–3.5	EW10-SC33-2-3.5		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	22.5 22 11.5		
3.5–5.8	EW10-SC33-3.5-5.8		Archive	1 0.5	(ML) Damp, medium stiff, light gray to olive gray, SILT, trace f-sand and moderate pockets and laminated beds of damp, medium dense, dark gray, slightly silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Trace shell fragments up to 1"-long. @ 4.1': Black "charcoal-like" angular pieces up to 2" in diameter.	Transition
5.8–8	EW10-SC33-5.8-8		SVOC, PCB, Metals, Mercury	2.2	(SP) Damp, dense, dark gray, vf-SAND and occasional pockets (up to 2"-diameter) of damp, stiff, olive gray, vf-sandy SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional decomposed wood layers (up to 3"-long, orange) and trace shell fragments.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.4/14 ft = 95.7%

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Sediment Core Log

CORE: EW10-SC33

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **2.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **34.4**	Recovery Length (ft): **13.4**
Collection Date: **3/2/2010**	Surveyed Mudline Elevation (ft): **-30.9**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.7820 N** E/LONG: **122 20.5744 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC33-8-9.8		Mercury	0	(SP) Damp, dense, dark gray, vf-SAND and occasional pockets (up to 2"-diameter) of damp, stiff, olive gray, vf-sandy SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional decomposed wood layers (up to 3"-long, orange) and trace shell fragments. @ 8.3': Layer of decomposed wood (2"-thick) @ 9.1': Layer of decomposed wood (2"-thick @ 9.5': Layer of decomposed wood (2"-thick)	Native
9–13	EW10-SC33-9.8-12 EW10-SC33-12-13		Archive Archive	0 0	(ML) Damp, stiff, olive gray, vf-sandy, SILT. Occasional laminated and stratified beds of moist, medium dense, dark gray, silty, vf-SAND (SM). End of core at 13'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.4/14 ft = 95.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC34

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **62.0**	Recovery Length (ft): **13.1**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-53.3**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.8218 N** E/LONG: **122 20.6840 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.2	EW10-SC34-0.2-2.4		SVOC, PCB, Metals, TOC/TS, GS	0	(SAND COVER) Wet to moist, loose, dark gray, very silty, SAND.	
1.2–2.4	EW10-SC34-0.2-2.4		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, medium stiff, black, clayey SILT and trace pockets of 1/4"-diameter silty, f-SAND (SM). Silt is smooth. Sand grains are multicolored and are red, beige, black, white, and gray. Sand smear along sidewalls of unit.	
2.4–3.9	EW10-SC34-2.4-3.9		SVOC, PCB, Metals, TOC/TS, GS	0	@ 2.2-2.4': Diagonal contact (SP) Moist, medium dense to dense, dark gray, f-SAND and moderate laminated and stratified beds of moist, medium stiff, black, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 2.8': 2"-diameter agglomerate.	Transition
3.9–6	EW10-SC34-3.9-6		Archive	0	(ML) Damp, stiff, olive gray, SILT and moderate pockets, and laminated and stratified beds of f-SAND (SP). (SP) Damp, dense, dark gray, f-SAND and occasional laminated and stratified beds of SILT (ML). Trace wood layers and scattered wood (up to 1/4"-long).	Native
6–8	EW10-SC34-6-8		Archive	0	@ 6.3': Grades to moderate laminated and stratified beds of SILT (ML) (SP-ML) Damp, dense, dark gray, f-SAND and substantial laminated and stratified beds of SILT (ML). @ 7.7': Thin bed of light gray, SILT (ML) @ 7.8': Bed of slightly silty, vf-SAND (SM).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC34

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **62.0**	Recovery Length (ft): **13.1**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-53.3**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.8218 N** E/LONG: **122 20.6840 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC34-8-10		Archive	0	(ML) Moist, soft, dark gray, SILT, trace vf-sand. @ 8.1-8.2': Diagonal contact (SP) Moist, dense, dark gray, f-SAND. (ML) Damp, medium stiff, olive gray, slightly clayey, SILT and moderate laminated and stratified beds of f-SAND (SP). Silt is smooth and slightly fissured. @ 9.6': 3"-thick bed of f-SAND (SP)	Native
9–12.3	EW10-SC34-10-12.3		Archive	0 0	@ 12.2': 1"-thick bed of f-SAND (SP) @ 12.3': 1/2"-thick bed of f-SAND (SP) End of core at 12.3'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14 ft = 93.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC35

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **55.4**	Recovery Length (ft): **13.2**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-43.7**	Process Date: **2/24/2010**
Contractor: **MSS**	N/LAT: **47 34.8486 N** E/LONG: **122 20.5899 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC35-0-2		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Wet, soft, olive gray, vf-sandy, SILT.	Recent
				0	(ML) Moist, medium stiff, black with olive gray mottling, slightly vf-sandy, slightly clayey, SILT, trace subrounded f-gravel (up to 1/4"-diameter) and trace stratified beds of very sandy, SILT (ML).	
				2.4	@ 1.1-1.3': Bed of vf-sandy, SILT (ML)	
1–2					@1.9-2.0': Bed of vf-sandy, SILT (ML)	
2–3	EW10-SC35-2-4		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, medium dense, dark gray, slightly clayey, very f-sandy, SILT, trace subrounded f-gravel (1/4"-diameter).	Transition
				0		
3–4					(ML) Damp, medium stiff, dark gray, slightly vf-f-sandy, SILT and moderate laminated and stratified beds (up to 1"-thick) of very silty SAND (SM).	
4–5	EW10-SC35-4-6		Archive	0	(SM) Medium dense, dark gray, silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	
5–6					(ML) Damp, medium stiff, dark gray, slightly vf-f-sandy, SILT and moderate laminated and stratified beds of very silty, SAND (SM). @ 5.2': 1"-thick bed of very f-sandy, SILT (ML) @ 5.8': Bed of f-sandy, SILT (ML) @ 6.0': Grades to laminated beds of vf-sandy, SILT and clayey, SILT (ML). Beds of ML vary from 1/16" to 1"-thick	Native
6–7	EW10-SC35-6-8.5		Archive	0		
7–8						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC35

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **55.4**	Recovery Length (ft): **13.2**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-43.7**	Process Date: **2/24/2010**
Contractor: **MSS**	N/LAT: **47 34.8486 N** E/LONG: **122 20.5899 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC35				(ML) Damp, medium stiff, dark gray, slightly vf-f-sandy, SILT and moderate laminated and stratified beds of very silty, SAND (SM).	Native
					VOID	
					(ML) Same as above @ 6.0'.	
9–10	EW10-SC35-8.5-10.1		Archive	0	(SM) Damp, dense, dark gray, silty, vf-SAND and trace pockets (3"-diameter) of damp, stiff, light gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
10–12.8	EW10-SC35-10.1-12.8		Archive	0 0	(SM-ML) Damp, dense, dark gray, silty, vf-SAND and moderate laminated and stratified beds of vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
12.8–13					End of core at 12.8'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC36

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **58.3**	Recovery Length (ft): **12.6**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-52.7**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.8915 N** E/LONG: **122 20.6410 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1		✦		0	(ML) Moist, soft, olive gray and black mottling, SILT, trace vf-sand. Trace biota (worms) and shell fragments.	Recent
					(SAND COVER) Moist, loose, light gray, m-c-SAND. Sand grains are poorly sorted and are brown, green, beige, gray, and white.	Sand Cover
1–2	EW10-SC36-0.9-3	✦	SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(SM) Damp, medium dense, dark gray, slightly silty, f-SAND and moderate pockets of slightly clayey, SILT (ML). Trace wood fragments (up to 1.5"-long). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
2–3					(ML) Moist, stiff, olive gray with black mottling, slightly clayey, SILT and moderate pockets of slightly silty, f-SAND (SM).	
3–5	EW10-SC36-3-5		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(SM) Damp, dense, dark gray, slightly silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Unit is homogenous.	
5–6	EW10-SC36-5-7	✦	Archive	0		
6–7	EW10-SC36-7-9			0	@ 6.9': Grades to f-SAND with occasional laminated beds of SILT (ML)	
7–8			Archive		@ 7.7': Grades to moderate pockets, and laminated and stratified beds of SILT (ML)	

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Footnote(1): Attempt 1 of 1

Footnote (2): From 0.9-1.9': some SAND COVER sand present on sidewalls.

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14 ft = 90.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC36

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **58.3**	Recovery Length (ft): **12.6**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-52.7**	Process Date: **3/9/2010**
Contractor: **MSS**	N/LAT: **47 34.8915 N** E/LONG: **122 20.6410 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC36-7-9				(SM) Damp, dense, dark gray, slightly silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Unit is homogenous.	Native
9–10	EW10-SC36-9-11			0	(SM) Damp, dense, dark gray, silty, vf-SAND and occasional pockets of slightly silty, vf-SAND (SM) up to 1/2"-diameter.	
10–11			Archive		@ 9.9': Grades to laminated and stratified beds of stiff, olive gray, SILT (ML).	
11–12	EW10-SC36-11-12.1		Archive	0	(SP) Damp, dense, dark gray, f-SAND and trace laminated beds of SILT (ML). Occasional pieces of wood (up to 1/2"-long).	
12				0	End of core at 12.1'.	
13–16						

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Footnote(1): Attempt 1 of 1

Footnote (2): From 0.9-1.9': some SAND COVER sand present on sidewalls.

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14 ft = 90.0%

Sediment Core Log

CORE: EW10-SC37

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **61.2**	Recovery Length (ft): **13.6**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-53.2**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 34.8911 N** E/LONG: **122 20.7346 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC37-0-2		SVOC, PCB, Metals, TOC/TS, GS / Butyltins	0 0	(ML-SM) Moist, medium stiff, olive gray with dark gray mottling, very vf-sandy, SILT and substantial laminated and stratified beds of slightly silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Slight H2S odor.	Native
2–4	EW10-SC37-2-3.9		SVOC, PCB, Metals, TOC/TS, GS / Butyltins	0		
4					VOID	
4–6	EW10-SC37-3.9-6		Archive	0	(ML) Same as above @ 0'. @ 5.5': Grades to slightly clayey, vf-sandy, SILT (ML).	
6–8	EW10-SC37-6-8		Archive	0	(SP) Damp, dense, dark gray, SAND and moderate laminated and stratified beds of damp, stiff, olive gray, slightly vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fibers (up to 1"-long).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC37

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **61.2**	Recovery Length (ft): **13.6**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-53.2**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 34.8911 N** E/LONG: **122 20.7346 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC37-8-10		Archive	0	(SP) Damp, dense, dark gray, SAND and moderate laminated and stratified beds of damp, stiff, olive gray, slightly vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fibers (up to 1"-long).	Native
9–10						
10–11	EW10-SC37-10-12.9		Archive	0		
11–12				0		
12–13					End of core at 12.9'.	
13–14						
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Sediment Core Log

CORE: EW10-SC38

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.1**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.0**	Recovery Length (ft): **13.6**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-52.0**	Process Date: **2/25/2010**
Contractor: **MSS**	N/LAT: **47 34.8945 N** E/LONG: **122 20.5983 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–0.8	EW10-SC38-0-0.8		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, stiff, olive gray, slightly clayey, vf-sandy, SILT and trace pockets of light gray-brown, silty, CLAY (CL).	Recent
0.8–2	EW10-SC38-0.8-2		SVOC, PCB, Metals, TOC/TS, GS	0	(SM) Moist, dense, dark gray, silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Native
					(ML-SM) Moist, stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of moist (grading to damp down core), dense, dark gray, silty, vf-SAND (SM).	
2–3	EW10-SC38-2-3		Archive			
3–4	EW10-SC38-3-4		Archive	0		
4–6	EW10-SC38-4-6		Archive	0	@ 5': Grades to moderate laminated and stratified beds of silty, vf-SAND (SM)	
6–8	EW10-SC38-6-8		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

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Sediment Core Log

CORE: EW10-SC38

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.1**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.0**	Recovery Length (ft): **13.6**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-52.0**	Process Date: **2/25/2010**
Contractor: **MSS**	N/LAT: **47 34.8945 N** E/LONG: **122 20.5983 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC38-8-9.6		Archive	0	(ML-SM) Moist, stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of moist (grading to damp down core), dense, dark gray, silty, vf-SAND (SM). @ 9.3': 1"-thick bed of moist, medium stiff, light gray, clayey, SILT (ML).	Native
9–10	EW10-SC38-9.6-11		Archive	0	(SM) Damp, medium dense, dark gray, silty, vf-SAND and moderate laminated beds of olive gray, sandy, SILT (ML).	
10–12.9	EW10-SC38-11-12.9		Archive	0		
12.9–16					End of core at 12.9'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC39

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.7**	Recovery Length (ft): **13.3**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-54.0**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 34.9404 N** E/LONG: **122 20.6981 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC39-0-2		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0	(ML) Moist, soft, olive gray with black mottling, SILT and occasional pockets of silty, f-SAND (SM). Trace biota (worm) and trace wood fragments (up to 1/4"-long).	Recent
1–3	EW10-SC39-2-3.4		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0	(SM) Moist, medium dense, dark gray, silty, f-SAND and occasional laminated and stratified beds of soft, olive gray, SILT (ML). Trace shell fragments up to 1/4"-diameter.	Transition
3–4	EW10-SC39-3.4-5.4		Archive	0	(SM) Moist, medium dense, dark gray, silty, f-SAND and moderate pockets of f-SAND (SP) and moderate laminated and stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
4–6	EW10-SC39-5.4-8		Archive	0	(ML) Moist, medium stiff, olive gray with black mottling, SILT and moderate pockets of f-SAND (SM).	
6–8				0	(SP) Damp, dense, dark gray, f-SAND and moderate laminated and stratified beds of olive gray, SILT (ML).	Native
					(SP) Damp, dense, dark gray, f-SAND.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC39

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.7**	Recovery Length (ft): **13.3**
Collection Date: **3/8/2010**	Surveyed Mudline Elevation (ft): **-54.0**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 34.9404 N** E/LONG: **122 20.6981 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC39-8-10		Archive	0	(SM) Damp to moist (adjacent to layer of wood), medium dense, dark gray, slightly silty, f-SAND and moderate stratified beds of SILT (ML) and f-SAND (SP) in fining upwards sequence of SP-ML-SM. Occasional wood (up to 1/4"-long) within f-SAND (SP) beds.	Native
9–12.8	EW10-SC39-10-12.8		Archive	0 0	(ML) Damp, stiff, olive gray, slightly f-sandy, slightly clayey, SILT and moderate pockets and laminated beds of f-SAND (SM). Silt rolls easily. @ 11.8': Grades to occasional laminated beds of slightly clayey, SILT (ML)	
12.8–14					End of core at 12.8'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC40

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.9**	Recovery Length (ft): **13.3**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-53.6**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.0035 N** E/LONG: **122 20.6924 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC40-0-1		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML) Moist, soft, black and olive gray mottled, SILT. Trace biota (worm).	Recent
				0	(ML) Moist, soft, olive gray, SILT and occasional laminated and pockets of silty, f-SAND (SM) and occasional pockets of light gray, SILT (ML). Silt is smooth.	Transition
				1.7	@ 1.0': SILT (ML) grades to medium stiff, darker olive gray. pockets of f-SAND (SM) grade to moderate (up to 1/4"-diameter). Sand grains are multicolored and are red, beige, black, white, and gray	
1–3	EW10-SC40-1-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0.2	@ 2.0': SILT (ML) grades to dark gray. Trace shell fragments.	
				0		
3–4					(ML-SP) Moist, soft, dark gray, SILT and substantial pockets of f-SAND (SM) up to 1/4"-diameter. Trace shell fragments.	
					@ 3.8-4': Diagonal contact	
4–7	EW10-SC40-4-6.8		PCB, Mercury	0	(SP) Damp, dense, dark gray, stratified beds of vf- and f-SAND.	Native
7–8	EW10-SC40-6.8-8		Mercury	0	(ML) Damp, stiff, dark gray, very vf-sandy, SILT and moderate pockets (up to 1/2"-diameter), and laminated and stratified beds of SAND (SM) and trace laminated beds of olive gray, SILT (ML). Silt texture is crumbly.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

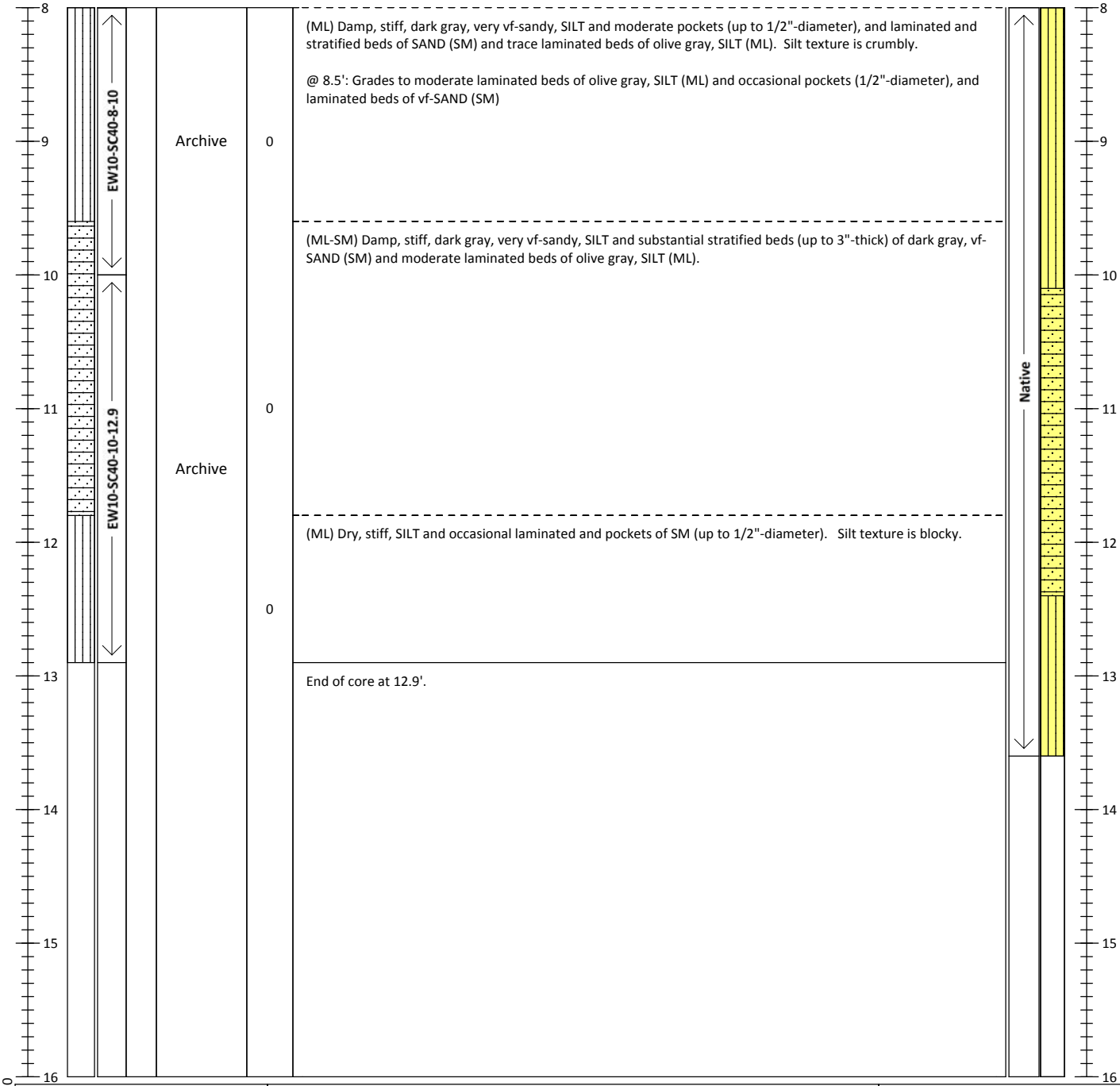
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC40

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.9**	Recovery Length (ft): **13.3**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-53.6**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.0035 N** E/LONG: **122 20.6924 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC40-8-10		Archive	0	(ML) Damp, stiff, dark gray, very vf-sandy, SILT and moderate pockets (up to 1/2"-diameter), and laminated and stratified beds of SAND (SM) and trace laminated beds of olive gray, SILT (ML). Silt texture is crumbly. @ 8.5': Grades to moderate laminated beds of olive gray, SILT (ML) and occasional pockets (1/2"-diameter), and laminated beds of vf-SAND (SM)	Native
9–12.9	EW10-SC40-10-12.9		Archive	0 0	(ML-SM) Damp, stiff, dark gray, very vf-sandy, SILT and substantial stratified beds (up to 3"-thick) of dark gray, vf-SAND (SM) and moderate laminated beds of olive gray, SILT (ML). (ML) Dry, stiff, SILT and occasional laminated and pockets of SM (up to 1/2"-diameter). Silt texture is blocky.	
12.9–14					End of core at 12.9'.	



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC41

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.9**	Recovery Length (ft): **13.3**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-52.6**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.0035 N** E/LONG: **122 20.6924 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0	SC41-0-0.6		PCB, Metals, TOC/TS, GS	0	(SM) Moist, medium dense, dark gray, silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Transition
					(SP) Moist, medium dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace shell fragments.	
1	EW10-SC41-0.6-2		SVOC, PCB, Metals, TOC/TS, GS	0	(ML-SM) Moist, medium stiff to stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of moist (grading to damp down core), dense, dark gray, silty, vf-SAND (SM).	Native
2	EW10-SC41-2-3.4		Archive			
3				0	@ 3.0': 1"-thick bed of light gray-brown, silty, CLAY (CL)	
	EW10-SC41-3		Archive		(SM) Moist, dense, dark gray, silty, f-SAND and trace 1"-diameter pockets of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
4	EW10-SC41-4-5.9		Archive	0		
5					(ML) Moist, stiff, dark gray and olive gray mottled, slightly vf-sandy, SILT.	
6	EW10-SC41-5.9-8				(ML) Damp, stiff, olive gray with black mottling, clayey, SILT.	
7			Archive	0	@ 6.8': Grades to slightly sandy, SILT	
8						

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Footnote(1): Attempt 2 of 2

Footnote (2):

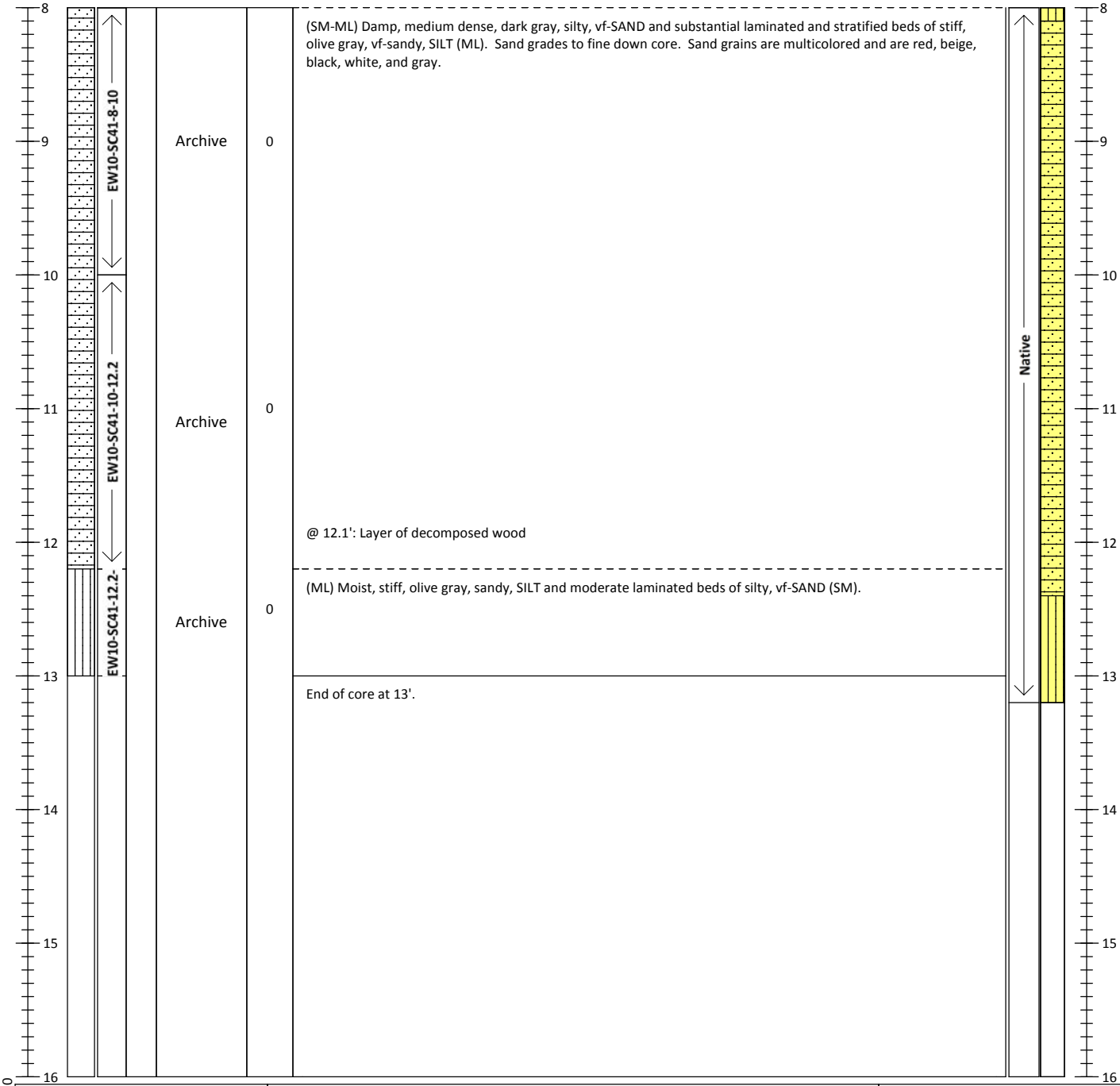
Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Sediment Core Log

CORE: EW10-SC41

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.9**	Recovery Length (ft): **13.3**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-52.6**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.0035 N** E/LONG: **122 20.6924 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC41-8-10		Archive	0	(SM-ML) Damp, medium dense, dark gray, silty, vf-SAND and substantial laminated and stratified beds of stiff, olive gray, vf-sandy, SILT (ML). Sand grades to fine down core. Sand grains are multicolored and are red, beige, black, white, and gray.	Native
9–10	EW10-SC41-10-12.2		Archive	0	@ 12.1': Layer of decomposed wood	
10–12	EW10-SC41-12.2-		Archive	0	(ML) Moist, stiff, olive gray, sandy, SILT and moderate laminated beds of silty, vf-SAND (SM).	
12–13					End of core at 13'.	



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Footnote(1): Attempt 2 of 2

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC42

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **64.0**	Recovery Length (ft): **13.8**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-54.9**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.0575 N** E/LONG: **122 20.6738 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML/DM**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1.3	EW10-SC42-0-2		SVOC, PCB, Metals, TOC/TS, GS	0 10.8 8.4	(ML) Moist, soft, dark gray with olive gray mottling, very clayey, SILT. Trace organic matter (wood fragments up to 2"-long, hairs) and trace shell fragments (1/4"-diameter). Moderate H2S odor, strong odor upon homogenizing. @ 1.3': Grades to olive gray with black mottling	Recent
1.3–5.5	EW10-SC42-2-4 EW10-SC42-4-5.5		SVOC, PCB, Metals, TOC/TS, GS PCB, Mercury	13 2.9 1 0 0	(ML) Moist, soft, dark gray with olive gray mottling, very clayey, SILT and trace pockets of slightly silty, f-SAND (SM) and trace pockets (1/2"-diameter) of light gray SILT (ML). @ 4.6': Grades to occasional pockets (up to 1/2"-diameter) of slightly silty, f-SAND (SM).	Transition
5.5–8	EW10-SC42-5.5-8		Mercury	0	(SM) Moist, dense, dark gray, slightly silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. @ 6.9-7.1': Diagonal contact (ML) Moist, medium stiff to soft, olive gray with black mottling, SILT and trace pockets (up to 1/2"-diameter) of slightly silty, f-SAND (SM). @ 7.8-8.1': Diagonal contact	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8./14 ft = 98.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC42

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **64.0**	Recovery Length (ft): **13.8**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-54.9**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.0575 N** E/LONG: **122 20.6738 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML/DM**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC42-8-10		Mercury	0	(SM) Moist, dense, dark gray, slightly silty, f-SAND and occasional pockets (up to 1"-diameter) of moist, dense, dark gray, f-SAND (SP).	Native
9–10	EW10-SC42-8-10				@ 9': Grades to occasional pockets (up to 1"-diameter), and laminated and stratified beds of olive gray, SILT (ML)	
10–11	EW10-SC42-10-12		Archive	0		
11–12	EW10-SC42-10-12				(SP) Moist, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments (up to 1/4"-long).	
12–13	EW10-SC42-12-13.4		Archive	0	End of core at 12.4'.	
13–14	EW10-SC42-12-13.4					
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8./14 ft = 98.6%

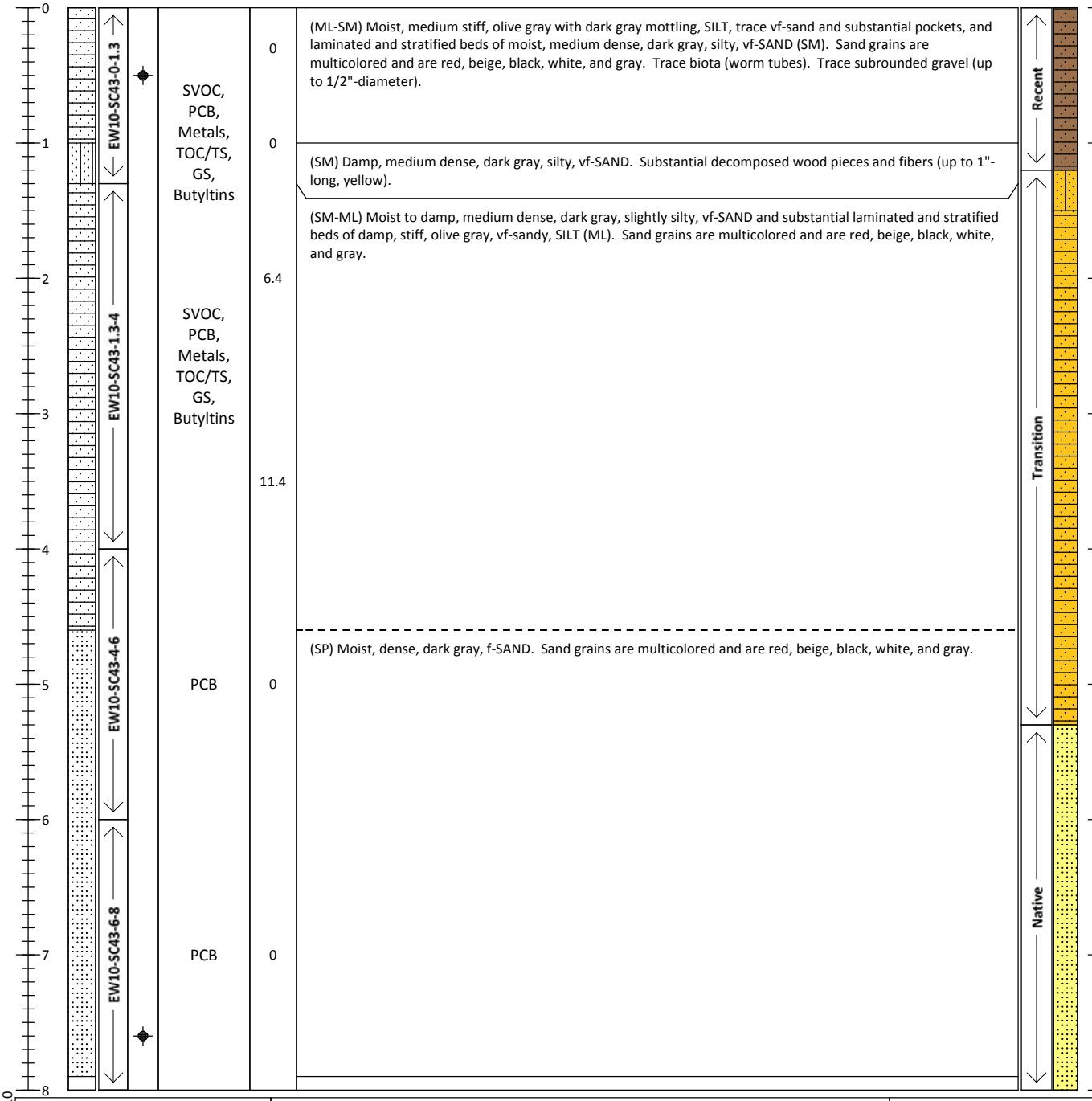
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC43

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **64.8**	Recovery Length (ft): **12.1**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-53.2**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 35.0620 N** E/LONG: **122 20.7367 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–8	EW10-SC43-0-1.3 EW10-SC43-1.3-4 EW10-SC43-4-6 EW10-SC43-6-8	✦	SVOC, PCB, Metals, TOC/TS, GS, Butyltins SVOC, PCB, Metals, TOC/TS, GS, Butyltins PCB PCB	0 0 6.4 11.4 0 0	(ML-SM) Moist, medium stiff, olive gray with dark gray mottling, SILT, trace vf-sand and substantial pockets, and laminated and stratified beds of moist, medium dense, dark gray, silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Trace biota (worm tubes). Trace subrounded gravel (up to 1/2"-diameter). (SM) Damp, medium dense, dark gray, silty, vf-SAND. Substantial decomposed wood pieces and fibers (up to 1"-long, yellow). (SM-ML) Moist to damp, medium dense, dark gray, slightly silty, vf-SAND and substantial laminated and stratified beds of damp, stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. (SP) Moist, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Recent Transition Native



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.1/14 ft = 86.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC43

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **64.8**	Recovery Length (ft): **12.1**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-53.2**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 35.0620 N** E/LONG: **122 20.7367 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC43-8-10		Archive	0	VOID (SP) Same as above @ 4.6'.	Native
9–10						
10–11	EW10-SC43-10-11.5		Archive	0	@ 11.2': Trace wood debris	
11–12					End of core at 11.5'.	
12–13						
13–14						
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.1/14 ft = 86.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC44

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.3**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.4**	Recovery Length (ft): **14.2**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-53.9**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.1233 N** E/LONG: **122 20.6793 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML/DM**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC44-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(SP) Damp, dense, dark gray, vf-SAND and trace pockets (1"-diameter) of stiff, damp, olive gray, SILT (ML) with thin beds of f-SAND (SP) surrounding the pocket of ML. Sand grains are multicolored and are red, beige, black, white, and gray. Trace biota and trace wood (up to 1"-long). @ 0.6': Grades to moderate laminated beds of SILT (ML)	Native
1–2				0	(SP-ML) Damp, dense, dark gray, vf-SAND and substantial laminated beds of olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 1.9': Layer of decomposed wood debris (up to 1/4"-long)	
2–3	EW10-SC44-2-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins		(SP) Damp, dense, dark gray, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	
3–4				0	(SP) Damp, dense, dark gray, vf-SAND and moderate stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 3.3': Grades to moderate laminated and stratified beds of SILT (ML) and silty, SAND (SM), fining upwards in a sequence of ML-SM-SP	
4–5	EW10-SC44-4-6		Archive	0	@ 4.2': Shell fragment 1/4"-diameter	
6–7	EW10-SC44-6-8		Archive	0	(ML) Moist, stiff, olive gray, vf-sandy, SILT and moderate laminated and stratified beds of vf-SAND (SP) and silty, vf-SAND (SM).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
14.2/14 ft = 101.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC44

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.3**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.4**	Recovery Length (ft): **14.2**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-53.9**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.1233 N** E/LONG: **122 20.6793 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML/DM**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC44-8-10		Archive	0	(ML) Moist, stiff, olive gray, vf-sandy, SILT and moderate laminated and stratified beds of vf-SAND (SP) and silty, vf-SAND (SM).	Native
9–10	EW10-SC44-8-10		Archive	0	(SP-ML) Moist, stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of vf-SAND (SP) and silty, vf-SAND (SM).	Native
10–11	EW10-SC44-10-12		Archive	0	(SP) Damp, dense, dark gray, f-SAND.	Native
11–12	EW10-SC44-10-12		Archive	0	(ML) Damp, stiff, dark gray, slightly vf-sandy, slightly clayey, SILT.	Native
12–13	EW10-SC44-12-13.2		Archive	0	(SM) Damp, dense, dark gray, silty, vf-SAND and occasional laminated beds of dark gray, slightly vf-sandy, slightly clayey SILT (ML).	Native
13	EW10-SC44-12-13.2		Archive	0	(ML) Damp, stiff, dark gray, slightly vf-sandy, slightly clayey, SILT and trace 1/2"-diameter pocket of silty, vf-SAND (SM).	Native
13–16					End of core at 13.2'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
14.2/14 ft = 101.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC45

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.5**	Recovery Length (ft): **14.2**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-51.6**	Process Date: **2/25/2010**
Contractor: **MSS**	N/LAT: **47 35.1335 N** E/LONG: **122 20.6033 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	SC45-0-1		SVOC, PCB, Metals, TOC/TS, GS	0	(SP) Damp, dense, dark gray, f-SAND and trace pockets (up to 1/4"-diameter) of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 0.9": Layer of decomposed wood fibers (1/2"-thick)	Native
1–2	SC45-1-1.7		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Damp, medium stiff, olive gray, very vf-sandy, SILT. Sand grains are multicolored and are red, beige, black, white, and gray.	Native
2–3	EW10-SC45-1.7-3		Archive		(SM) Moist, medium dense, dark gray, silty, vf-SAND and moderate laminated and stratified beds of moist, medium stiff, olive gray, very sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional wood fragments (up to 1/4"-long).	Native
3–4	EW10-SC45-3-4		Archive	0	(SM-ML) Moist, medium dense, dark gray, silty, vf- coarsening down core to f-SAND and substantial laminated and stratified beds of moist, medium stiff, olive gray, very sandy, SILT (ML).	Native
4–6	EW10-SC45-4-6		Archive	0	@ 4.6-4.8': Bed of soft, medium stiff, light gray to olive gray, clayey, SILT (ML)	Native
6–8	EW10-SC45-6-8		Archive	0	(ML) Damp, stiff, olive gray, very vf-sandy, SILT and moderate laminated and stratified beds of damp, dense, dark gray, very silty, vf-SAND (SM).	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
14.15/14 ft = 101.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC45

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.5**	Recovery Length (ft): **14.2**
Collection Date: **2/24/2010**	Surveyed Mudline Elevation (ft): **-51.6**	Process Date: **2/25/2010**
Contractor: **MSS**	N/LAT: **47 35.1335 N** E/LONG: **122 20.6033 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/AO**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC45-8-10		Archive	0	(ML) Damp, stiff, olive gray, very vf-sandy, SILT and moderate laminated and stratified beds of damp, dense, dark gray, very silty, vf-SAND (SM). @ 8-8.2': Bed of soft, medium stiff, light gray to olive gray, clayey, SILT (ML)	Native
9–10						
10–11	EW10-SC45-10-12		Archive	0		
11–12						
12–13	SC45-12-13.3		Archive	0	@ 12.2': Beds of SILT (ML) grade to vf-sandy	
13–14					End of core at 13.3'.	
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
14.15/14 ft = 101.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC46

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.4**	Recovery Length (ft): **13**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-53.5**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 35.1464 N** E/LONG: **122 20.7432 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–2.3	EW10-SC46-0-2.3		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML-SM) Moist, medium stiff, olive gray, slightly vf-sandy, SILT and substantial pockets of dark gray, silty, f-SAND (SM) and moderate pockets of light gray, clayey, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 0': Large worm tube 6"-long	Transition
				0	(ML-SM) Moist, medium stiff, olive gray, slightly vf-sandy, SILT and substantial laminated and stratified beds of damp, medium dense, dark gray, silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Trace layers of decomposed wood and wood fibers. @ 2.2': Layer of decomposed wood (1"-thick)	
2.3–4	EW10-SC46-2.3-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(SM) Moist, medium dense, dark gray, silty, vf-SAND and moderate laminated and stratified beds of damp, stiff, olive gray, vf-sandy, SILT (ML). Trace wood fibers (up to 1/4"-long).	Native
4–6	EW10-SC46-4-6		Archive	0	(SP) Damp, medium dense, dark gray, SAND and trace stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments, trace shell fragments.	
6–8.1	EW10-SC46-6-8.1		Archive	0	@ 7.2-7.4': Bed of damp, stiff, olive gray, very vf-sandy, SILT (ML)	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/14 ft = 92.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC46

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.4**	Recovery Length (ft): **13**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-53.5**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 35.1464 N** E/LONG: **122 20.7432 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC46-8.1-10; EW10-SC46-10-12.4		Archive; Archive	0; 0; 0	(SP) Damp, medium dense, dark gray, SAND and trace stratified beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments, trace shell fragments. (ML-SM) Moist, medium stiff, olive gray, slightly vf-sandy, SILT and substantial laminated and stratified beds of damp, medium dense, dark gray, slightly silty, vf-SAND (SM). End of core at 12.4'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/14 ft = 92.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC47

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.7**	Recovery Length (ft): **11.8**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-55.3**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.1992 N** E/LONG: **122 20.6636 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC47-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 1.3 11.6 2.6	(ML) Moist, soft, olive gray with dark gray mottling, slightly f-sandy, clayey, SILT and trace pockets up to 1/2"-diameter of moist, medium dense, dark gray, silty, f-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. @ 1.2': Grades to soft, olive gray, SILT. Silt is smooth	Transition
2–3.6	EW10-SC47-2-3.6		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML-SM) Moist, soft, olive gray, SILT and substantial stratified beds of moist, medium dense, dark gray, silty, f-SAND (SM). Occasional decomposed wood (up to 1"-long) in the sand beds.	
3.6–6	EW10-SC47-3.6-6		PCB, Mercury	0	(SP) Moist, medium dense, dark gray, f-SAND and occasional pockets (1"-diameter) of moist, medium stiff, olive gray, SILT (ML). Occasional shell fragments up to 1/2"-diameter in the SAND (SP). (SP-ML) Moist, medium dense, dark gray, f-SAND and substantial pockets (1/2"-diameter), and stratified beds of olive gray, SILT (ML).	Native
6–8	EW10-SC47-6-8		Mercury	0	(ML) Moist, stiff, olive gray, very vf-sandy, SILT and trace pockets (1/4"-diameter) of damp, dense, dark gray, f-SAND (SP) at basal contact. (SP) Damp, dense, dark gray, f-SAND and trace pockets, and laminated and stratified beds of moist, soft, olive gray, SILT (ML). Moderate shell fragments up to 1"-diameter.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14 ft = 84.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC47

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.4**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.7**	Recovery Length (ft): **11.8**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-55.3**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.1992 N** E/LONG: **122 20.6636 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC47-8-10		Archive	0	(SP) Damp, dense, dark gray, f-SAND and trace pockets, and laminated and stratified beds of moist, soft, olive gray, SILT (ML). Moderate shell fragments up to 1"-diameter. @ 9.0': Grades to trace shell fragments up to 1/4"-diameter	Native
9–11	EW10-SC47-10-11.1		Archive	0	(SP-ML) Damp, dense, dark gray, f-SAND and moderate to substantial pockets (1"-diameter) of moist, soft, olive gray, SILT (ML). Trace shell fragments up to 1/4"-diameter.	
11					End of core at 11.1'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14 ft = 84.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC48

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **37.5**	Recovery Length (ft): **13.5**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-33.6**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.2035 N** E/LONG: **122 20.5883 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC48-0-2		SVOC, PCB, Metals, TOC/TS, GS	0 6.2	(ML) Moist, soft to medium stiff, olive gray with black mottling, vf-sandy, clayey, SILT. Occasional biota (worms) in upper 6" of section, occasional wood fragments and fibers (up to 1"-long), trace shell fragments. Moderate H2S odor.	Recent
2–4.7	EW10-SC48-2-4.7		SVOC, PCB, Metals, TOC/TS, GS	0	@ 3.2': Thin bed (1/4"-thick) of damp, medium dense, dark gray, slightly silty, f-SAND (SM). Moderate to heavy sheen, moderate HC-like odor	Recent
4					VOID	
4.7–6	EW10-SC48-4.7-6		PCB, Mercury, Cadmium	0	(ML) Same as above @ 0'.	Recent
6–8	EW10-SC48-6-8		Mercury	0	(SP) Moist, medium dense, dark gray, vf-SAND and moderate pockets (1.5"-diameter), and laminated and stratified beds of damp, medium stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood (small twigs, up to 2"-long), trace shell fragments.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.5/14 ft = 96.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC48

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **37.5**	Recovery Length (ft): **13.5**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-33.6**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.2035 N** E/LONG: **122 20.5883 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC48-8-10	✦	Archive	0	(SP) Moist, medium dense, dark gray, vf-SAND and moderate pockets (1.5"-diameter), and laminated and stratified beds of damp, medium stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood (small twigs, up to 2"-long), trace shell fragments. VOID (SP) Same as above @ 4.7'. @ 9.0': Grades to vf- to f-SAND	Native
9–10						
10–11	EW10-SC48-10-12		Archive	0		
11–12					@ 12': Grades to moderate (1/2"-thick) decomposed wood layers (up to 2"-long, brown)	
12–13	EW10-SC48-12-13.1		Archive	0		
13–14					End of core at 13.1'.	
14–15						
15–16						

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.5/14 ft = 96.4%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC49

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.7**	Recovery Length (ft): **13.8**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-54.0**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.2526 N** E/LONG: **122 20.6690 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1.6	EW10-SC49-0-1.6		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 0	(ML) Moist, soft, olive gray, very clayey, SILT and trace pockets of moist, medium dense, olive gray, silty, f-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Trace biota (barnacle on a rock). @ 0.3': Grades to dark gray with olive gray mottling, SILT and trace pockets of silty, f-SAND (SM). Silt is smooth and homogenous @ 1.2': Piece of wood (1/2"-long) @ 1.5': Piece of gravel (1/4"-diameter)	Transition
1.6–2					(SM) Moist, dense, dark gray, slightly silty, f-SAND and moderate pockets of dark gray and olive gray, SILT (ML).	Native
2–4	EW10-SC49-1.6-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML) Moist, medium stiff, olive gray, SILT and moderate pockets of moist, dense, dark gray, slightly silty, f-SAND (SM). Trace wood (up to 1/2"-long). @ 2.4': Grades to damp, stiff, dark gray, vf-sandy SILT and trace pockets of slightly silty, f-SAND (SM) (SP) Damp, dense, dark gray, f-SAND.	
4–6	EW10-SC49-4-6		Archive	0	(ML) Damp, stiff, dark gray, very vf-sandy, SILT.	
6–8	EW10-SC49-6-8		Archive	0	(ML-SM) Damp, stiff, dark gray, very vf-sandy, SILT and substantial pockets, and laminated and stratified beds of slightly silty, vf-SAND (SM). (ML-SP) Damp, stiff, dark gray, very vf-sandy, SILT and substantial pockets, and laminated and stratified beds of vf-SAND (SP).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8/14 ft = 98.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC49

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **8.0**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **63.7**	Recovery Length (ft): **13.8**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-54.0**	Process Date: **3/10/2010**
Contractor: **MSS**	N/LAT: **47 35.2526 N** E/LONG: **122 20.6690 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC49-8-10 EW10-SC49-10-12 EW10-SC49-12-13.1		Archive Archive Archive	0 0 0	(ML-SP) Damp, stiff, dark gray, very vf-sandy, SILT and substantial pockets, and laminated and stratified beds of v-SAND (SP) (ML) Damp, stiff, dark gray, slightly clayey, SILT. Silt is blocky and smooth. @ 10.6': Grades to smooth texture (no longer blocky) @ 10.9': Piece of decomposed wood (3"-long) (SM) Moist to damp, dense, dark gray, slightly silty, vf-SAND and occasional laminated and stratified beds of clayey, SILT (ML). (ML) Damp, stiff, olive gray, slightly clayey, SILT. (SM) Damp, dense, dark gray, slightly silty, f-SAND and trace laminated beds of olive gray, slightly clayey, SILT (ML). End of core at 13.1'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8/14 ft = 98.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC50

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **44.8**	Recovery Length (ft): **11.8**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-37.5**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.2727 N** E/LONG: **122 20.5932 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.6	EW10-SC50-0-1.6		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML) Moist, soft, black with olive gray mottling, clayey, very sandy, f-sandy, SILT and trace subrounded gravel (up to 1"-diameter). Trace biota (worm), trace wood fibers, trace shell fragments. Moderate H2S odor.	Recent
				3.8	@ 1.3': Bed (2"-thick) of black angular pieces (easy to break apart) and 4"-long metal rod (similar to re-bar)	
1.6–4	EW10-SC50-1.6-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	4	(ML) Damp, medium stiff, olive gray, SILT and moderate laminated and stratified beds of damp, medium dense, dark gray, f-SAND, trace silt (SP). Sand grains are multicolored and are red, beige, black, white, and gray. Trace fresh wood fragments (up to 2"-long, yellow), trace shell fragments.	Transition
				13	(SP) Damp, medium dense, dark gray, vf- to f-SAND and moderate pockets (3"-diameter), and laminated and stratified beds of damp, medium stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional wood fragments (up to 2"-long). Moderate H2S odor.	Native
				23	@ 2.9': Piece of rubber (4"-long, similar to tire material)	
				13		
4–4.6					VOID	
4.6–6.8	EW10-SC50-4-6		Archive	6.3	(SP) Same as above @ 2.8'.	
				20		
6.8–8	EW10-SC50-6-8		Archive	8.8		
				10		
				1.8		
				0.2		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14 ft = 84.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC50

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **44.8**	Recovery Length (ft): **11.8**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-37.5**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.2727 N** E/LONG: **122 20.5932 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC50-8-10		Archive	0	(SP) Same as above @ 2.8'. (ML) Damp, stiff, olive gray, very vf-sandy, SILT and moderate laminated and stratified beds of damp, medium dense, dark gray, vf-SAND, trace silt (SP). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
9–11	EW10-SC50-10-11.3		Archive	0	End of core at 11.3'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14 ft = 84.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC51

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **72.0**	Recovery Length (ft): **12.3**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-61.7**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 35.2895 N** E/LONG: **122 20.7221 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–8	EW10-SC51-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML-SM) Moist to damp, stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of damp, dense, dark gray, silty, vf-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray.	Transition
	EW10-SC51-2-3.8		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0		
	EW10-SC51-3.8-6		Archive	0	(SP-ML) Damp, medium dense, dark gray, vf-SAND and substantial laminated and stratified beds of stiff, olive gray with black mottling, slightly vf-sandy, SILT (ML).	Native
	EW10-SC51-6-8		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.3/14 ft 87.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC51

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **72.0**	Recovery Length (ft): **12.3**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-61.7**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 35.2895 N** E/LONG: **122 20.7221 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC51-8-10	✦	Archive	0	(SP-ML) Damp, medium dense, dark gray, vf-SAND and substantial laminated and stratified beds of stiff, olive gray with black mottling, slightly vf-sandy, SILT (ML).	Native
					VOID	
					(SP-ML) Same as above @ 3.8'.	
	EW10-SC51-10-11.4		Archive	0		
					End of core at 11.4'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.3/14 ft 87.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC52

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.3**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **41.7**	Recovery Length (ft): **12.7**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-33.0**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.3094 N** E/LONG: **122 20.5884 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC52-0-2		SVOC, PCB, Metals, TOC/TS, GS	0; 0; 3.3	(ML) Soft, moist, black with olive gray mottling, f-sandy, clayey, SILT. Trace biota (worm tubes), trace fresh wood (up to 2"-long, orange).	Recent
2–4	EW10-SC52-2-4		SVOC, PCB, Metals, TOC/TS, GS	7.7; 0.3	(SM-ML) Damp, medium dense, dark gray, silty, f-SAND and substantial pockets (2"-diameter), and laminated and stratified beds of damp, stiff, olive gray, very vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments, trace shell fragments. Moderate H2S odor. @ 2.3': Bed of substantial fresh wood fragments (up to 4"-long, yellow).	Native
					VOID	
4–6	EW10-SC52-4-6		PCB	0	(SM-ML) Same as above @ 2'.	
6–8	EW10-SC52-6-8		Archive	0		
					VOID	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.7/14 ft = 90.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC52

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **9.3**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **41.7**	Recovery Length (ft): **12.7**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-33.0**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.3094 N** E/LONG: **122 20.5884 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC52-8-10		Archive	0	(SM-ML) Same as above @ 2'.	Native
9–10						
10–11	EW10-SC52-10-12		Archive	0		
11–12						
12–16					End of core at 12.0'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.7/14 ft = 90.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC53

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.3**	Recovery Length (ft): **12.3**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-54.5**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.3404 N** E/LONG: **122 20.6312 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2	EW10-SC53-0-2		SVOC, PCB, Metals, TOC/TS, GS	0	(ML-SM) Moist, medium stiff, olive gray with black mottling, SILT and substantial pockets (1/16"-diameter), and laminated beds of damp, medium dense, dark gray, very silty, f-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Trace biota (worm tubes), occasional wood fibers.	Transition
				0	@ 1.1': Piece of plastic (3"-long)	
2–3.2	EW10-SC53-2-3.2		Archive		@ 2.1': Piece of gum-like material	
				0		
3.2–5	SC53-3.2-5		Archive		(SP) Damp, medium dense, dark gray, f- to vf-SAND and moderate pockets (2"-diameter), and laminated and stratified beds of damp, stiff, olive gray, very vf-sandy, SILT (ML). Trace decomposed wood layers (up to 1"-long). Moderate H2S odor.	Native
					VOID	
				0	(SP) Same as above @ 3.2'.	
5–7	EW10-SC53-5-7		PCB	1.7		
7–8	EW10-SC53-7-9		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2): Interval 2-4 was analyzed for SVOC, PCB, Metals, TOC/TS, GS due to sampling error.

Calculated Recovery

Recovery Length/Penetration Depth:

12.3/14 ft = 87.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC53

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **60.3**	Recovery Length (ft): **12.3**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-54.5**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.3404 N** E/LONG: **122 20.6312 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC53-7-9			0	(SP) Same as above @ 3.2'. @ 8.0': Grades to trace laminated beds of olive gray, very vf-sandy, SILT (ML).	Native
9–11.8	EW10-SC53-9-11.8		Archive	0		
11.8–16					End of core at 11.8'.	

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Footnote(1): Attempt 1 of 1

Footnote (2): Interval 2-4 was analyzed for SVOC, PCB, Metals, TOC/TS, GS due to sampling error.

Calculated Recovery
Recovery Length/Penetration Depth:
12.3/14 ft = 87.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC54

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **20.5**	Recovery Length (ft): **9.9**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-8.7**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.3590 N** E/LONG: **122 20.5797 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–2.5	EW10-SC54-0-2		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0 2.5	(SM) Damp, medium dense, black, silty, c-f gravelly, f-SAND. Coarse gravel is subrounded (up to 2" diameter), fine gravel is subangular. Trace biota (worms) near surface. Slight HC-like odor, sight metallic sheen.	Recent
2.5–7.3	EW10-SC54-2-4		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	2.5 9 7.3 7.8 63 20	(ML) Moist, soft, black, SILT, trace f-sand. Slight HC-like odor. @ 1.7': Thin, clear piece of plastic (3"-long) and moderate black angular chunks (easy to break apart) (ML) Damp, medium stiff, olive gray, SILT, trace vf-sand. Substantial decomposed wood fragments and organic material (up to 8"-long, yellow/red). Moderate H2S odor.	
7.3–7.8	EW10-SC54-4-6		Archive	75 65		
7.8–9.9	EW10-SC54-6-8		Archive	29.5 38.2		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
9.9/14 ft = 70.7%

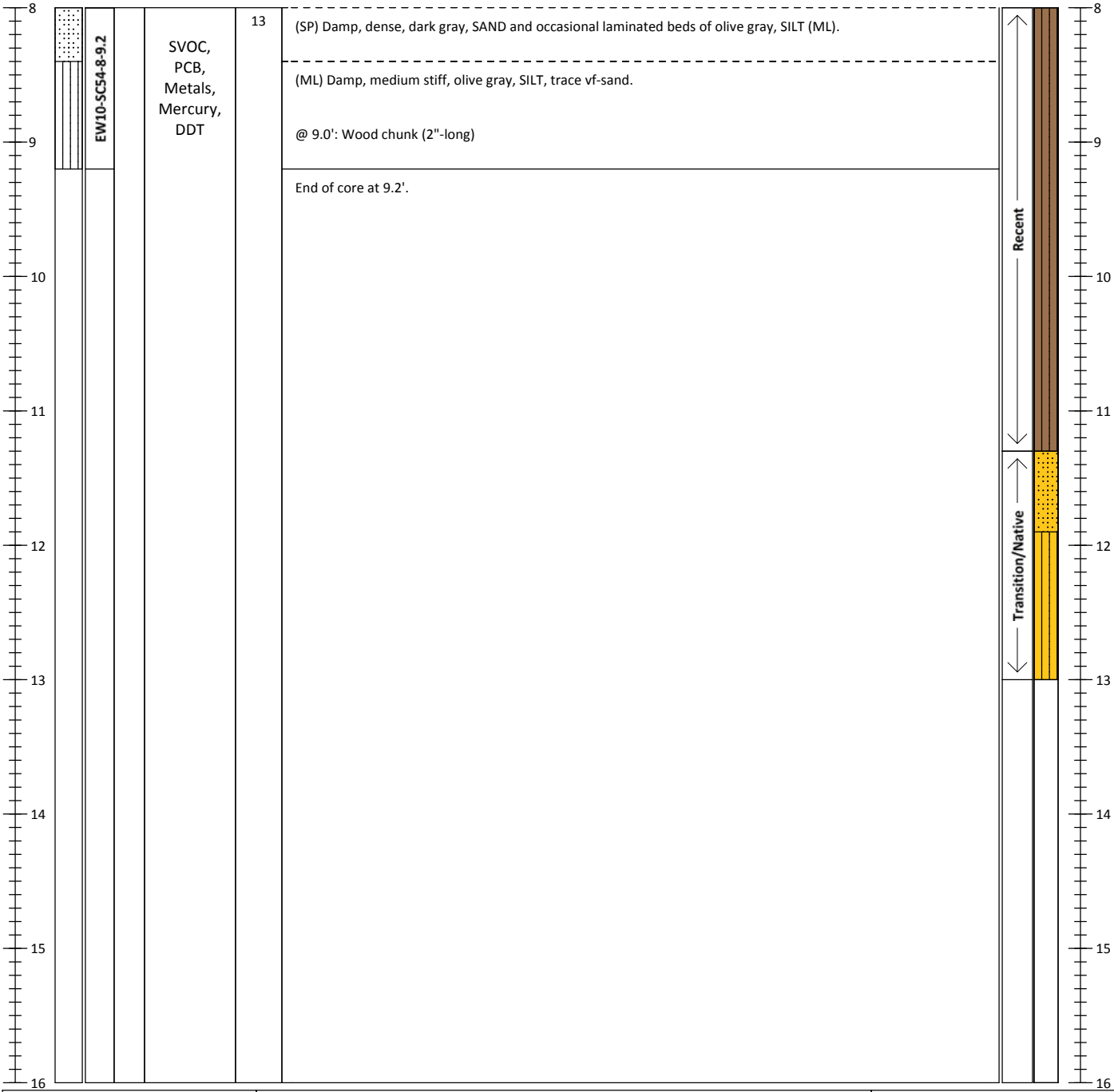
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC54

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **20.5**	Recovery Length (ft): **9.9**
Collection Date: **3/4/2010**	Surveyed Mudline Elevation (ft): **-8.7**	Process Date: **3/5/2010**
Contractor: **MSS**	N/LAT: **47 35.3590 N** E/LONG: **122 20.5797 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/BH**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC54-8-9.2		SVOC, PCB, Metals, Mercury, DDT	13	(SP) Damp, dense, dark gray, SAND and occasional laminated beds of olive gray, SILT (ML).	Recent
					(ML) Damp, medium stiff, olive gray, SILT, trace vf-sand. @ 9.0': Wood chunk (2"-long)	
					End of core at 9.2'.	Transition/Native



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
9.9/14 ft = 70.7%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC55

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **66.0**	Recovery Length (ft): **11**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-54.7**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 35.3653 N** E/LONG: **122 20.7425 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC55-0-2		SVOC, PCB, Metals, TOC/TS, GS	0 0	(SM) Wet, medium dense, olive gray to dark gray, silty, f-SAND, trace subangular gravel (up to 1"-diameter). Sand grains are multicolored and red, beige, black, white, and gray. Trace shell fragments. Moderate H2S odor. @ 0.1': Piece of plastic (2"-long)	Transition
2–4	EW10-SC55-2-4		SVOC, PCB, Metals, TOC/TS, GS	0	(SP) Damp, dense, dark gray, vf-SAND and moderate laminated and stratified beds of damp, stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Moderate H2S odor. @ 2': Subangular cobble (3"-diameter)	Native
4–6	EW10-SC55-4-6		Archive	26.6 5.8	@ 6': Grades to trace layers of decomposed wood fragments (up to 1"-long), trace shell fragments. Moderate H2S odor	
6–8	EW10-SC55-6-7.8		Archive	11.7		
	EW1			0	VOID	

Revised 6-16-2010

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11/14 ft = 78.6%

Sediment Core Log

CORE: EW10-SC55

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **10.2**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **66.0**	Recovery Length (ft): **11**
Collection Date: **2/25/2010**	Surveyed Mudline Elevation (ft): **-54.7**	Process Date: **2/26/2010**
Contractor: **MSS**	N/LAT: **47 35.3653 N** E/LONG: **122 20.7425 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC55-7.8-10 EW10-SC55-10-11.5		Archive Archive	49.4	VOID (SP) Same as above @ 6'. End of core at 11.5'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
11/14 ft = 78.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC56

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **64.0**	Recovery Length (ft): **12.9**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-56.1**	Process Date: **3/11/2010**
Contractor: **MSS**	N/LAT: **47 35.3700 N** E/LONG: **122 20.6848 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC56-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0 0	(SP) Damp, medium dense, dark gray, f-SAND and moderate pockets (up to 1"-diameter) of damp, medium dense, dark gray, silty, f-SAND and moderate pockets, and laminated and stratified beds of moist, medium stiff, olive gray, f-sandy, SILT (ML). Trace biota (peanut worm).	Native
2–3	EW10-SC56-2-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0		
4–5	EW10-SC56-4-6		Archive	0	@ 4.8': Layer of wood fragments (1/2"-long). Grades to trace wood (up to 1/4"-long) in SAND (SP)	
6–7	EW10-SC56-6-8		Archive	0	(ML-SM) Moist, stiff, olive gray, slightly f-sandy, SILT and substantial pockets (up to 1/2"-diameter) of damp to moist, dense, dark gray, slightly silty, f-SAND (SM).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.9/14 ft = 92.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC56

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **64.0**	Recovery Length (ft): **12.9**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-56.1**	Process Date: **3/11/2010**
Contractor: **MSS**	N/LAT: **47 35.3700 N** E/LONG: **122 20.6848 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC56-8-10		Archive	0	(ML-SM) Moist, stiff, olive gray, slightly f-sandy, SILT and substantial pockets (up to 1/2"-diameter) of damp to moist, dense, dark gray, slightly silty, f-SAND (SM).	Native
9–10					(SP-ML) Moist, dense, dark gray, f-SAND and substantial pockets and laminated beds of olive gray, slightly f-sandy, SILT (ML).	
10–12.25	EW10-SC56-10-12.2		Archive	0 0	(ML-SM) Moist, stiff, olive gray with dark gray mottling, slightly clayey, slightly f-sandy, SILT and substantial laminated and stratified beds of moist, dense, dark gray, slightly silty, f-SAND. @ 11.8': Silt (ML) grades to damp	
12.25					End of core at 12.25'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.9/14 ft = 92.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC57

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **44.0**	Recovery Length (ft): **13.8**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-40.8**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4092 N** E/LONG: **122 20.5094 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC57-0-2		SVOC, PCB, Metals, TOC/TS, GS, Pesticides	0	(ML) Moist, soft, olive gray, sandy, SILT.	Recen
					(SM) Damp, medium dense, dark gray, silty, vf- to f-SAND and stratified beds of olive gray, SILT. Sand grains are multicolored and are red, beige, black, white, and gray. Trace layers of decomposed wood (up to 1/2"-long).	Transition
1				0.6	(ML) Damp, medium stiff, olive gray, slightly sandy, SILT.	
1–2					(SP) Damp, medium dense, dark gray, f-SAND and trace pockets (up to 1/2"-diameter) of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
2	EW10-SC57-2-4			0		
2–3			SVOC, PCB, Metals, TOC/TS, GS, Pesticides			
3				0		
4	EW10-SC57-4-6				@ 4.6': Layer of shell fragments	
5			Archive	0		
6	EW10-SC57-6-8					
7			Archive	0		
					(SP-ML) Damp, medium dense, dark gray, f-SAND and substantial pockets of SILT (ML).	
8					VOID	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8/14 ft = 98.6%

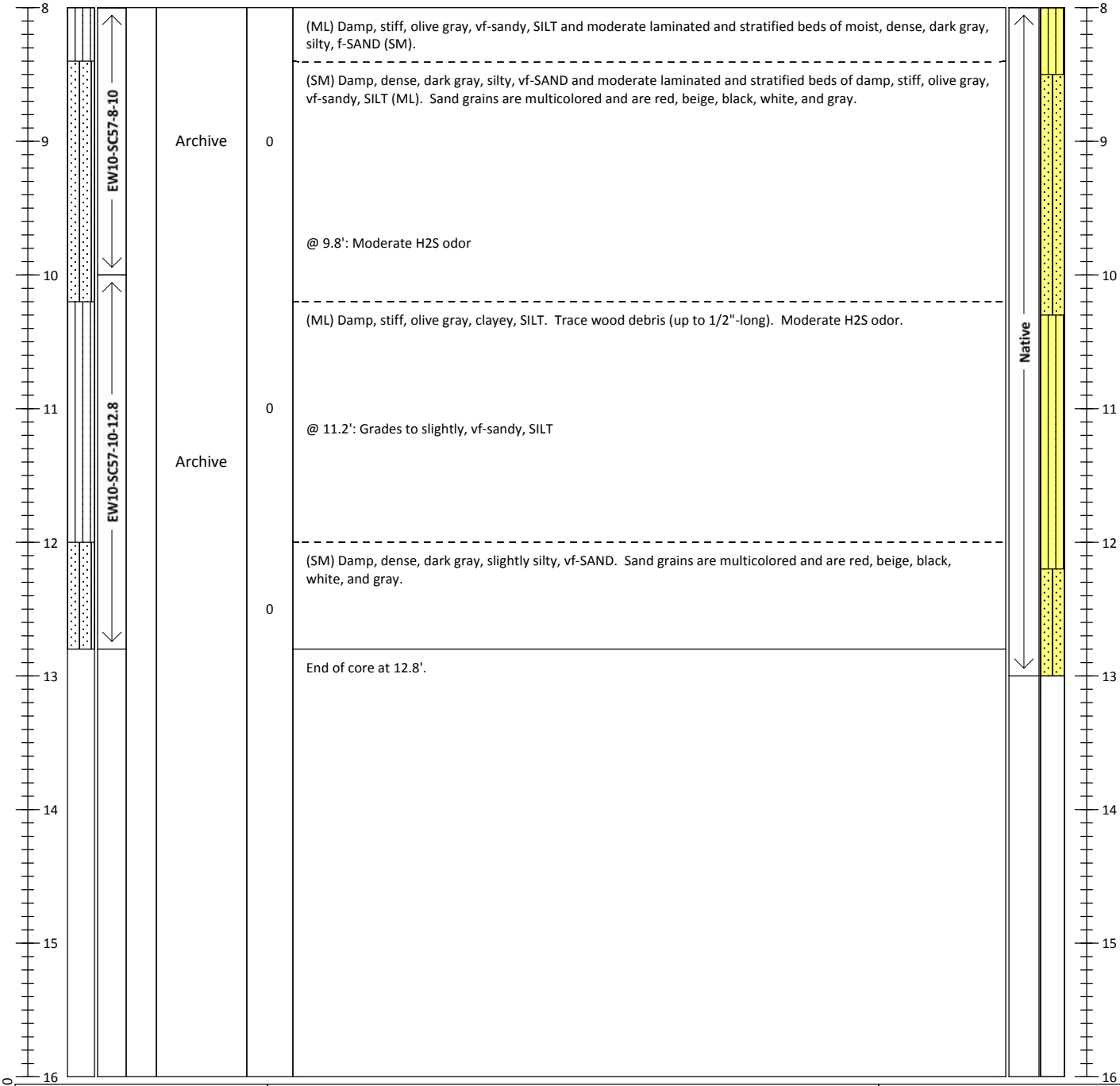
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC57

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **44.0**	Recovery Length (ft): **13.8**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-40.8**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4092 N** E/LONG: **122 20.5094 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC57-8-10		Archive	0	(ML) Damp, stiff, olive gray, vf-sandy, SILT and moderate laminated and stratified beds of moist, dense, dark gray, silty, f-SAND (SM). (SM) Damp, dense, dark gray, silty, vf-SAND and moderate laminated and stratified beds of damp, stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. @ 9.8': Moderate H2S odor	Native
9–12	EW10-SC57-10-12.8		Archive	0 0	(ML) Damp, stiff, olive gray, clayey, SILT. Trace wood debris (up to 1/2"-long). Moderate H2S odor. @ 11.2': Grades to slightly, vf-sandy, SILT (SM) Damp, dense, dark gray, slightly silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	
12–13					End of core at 12.8'.	



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery

Recovery Length/Penetration Depth:

13.8/14 ft = 98.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC58

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **44.0**	Recovery Length (ft): **12.6**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-34.7**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4215 N** E/LONG: **122 20.3200 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.8	EW10-SC58-0-1.8		SVOC, PCB, Metals, TOC/TS, GS	0 0.9	(ML) Moist, soft, black, SILT, trace f-sand. Silt is smooth and homogeneous. Trace wood layers, trace shells. Slight H2S odor. @ 0.9': Piece of brittle plastic (1"-long) @ 1.4': Layer (1"-thick) of decomposed wood (up to 1.5"-long)	Recent
1.8–4	EW10-SC58-1.8-4		SVOC, PCB, Metals, TOC/TS, GS	0 0	(SM) Moist, medium dense, dark gray, silty, f-SAND and occasional stratified beds of medium stiff, olive gray, SILT (ML). Silt is smooth. Sand grains are multicolored and are red, beige, black, white, and gray. Moderate layers of decomposed wood (up to 1.5"-long).	Transition
4–4.6					VOID	
4.6–6	EW10-SC58-4-6		Archive	0	(SM) Same as above @ 1.8'. Grades to slightly silty, f-SAND. (SP) Damp, dense, dark gray, f-SAND and occasional pockets and stratified beds of SILT (ML). Trace layers of decomposed wood.	Transition
6–8	EW10-SC58-6-8		PAH	0	@ 7.7': Layer of trace shell fragments	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14 ft 90.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC58

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **44.0**	Recovery Length (ft): **12.6**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-34.7**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4215 N** E/LONG: **122 20.3200 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC58-8-10		Archive	0	(SP) Damp, dense, dark gray, f-SAND and occasional pockets and stratified beds of SILT (ML). Trace layers of decomposed wood. @ 8.5': Trace subrounded f-gravel (ML) Damp, stiff, olive gray, slightly sandy, SILT and occasional laminated and stratified beds of f-SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
9–12	EW10-SC58-10-12		Archive	0	(SP) Damp, dense, dark gray, vf-SAND.	
12					End of core at 12.0'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14 ft 90.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC59

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.6**	Recovery Length (ft): **13.8**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-41.0**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4210 N** E/LONG: **122 20.4341 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC59-0-2		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML) Moist, soft, olive gray, slightly sandy, SILT.	Recen
				0	(SM) Moist, medium dense, dark gray, vf- to f-SAND and trace pockets (up to 1"-diameter) of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace biota (worm), trace layers of shredded decomposed wood (up to 1"-long), trace shell fragments.	
1–3	EW10-SC59-2-4		SVOC, PCB, Metals, TOC/TS, GS, Butyltins	0	(ML) Moist, medium stiff, olive gray, slightly sandy, SILT and occasional layers of silty, f-SAND.	Native
3–4					VOID	
					(ML) Same as above @ 2.3'.	
4–6	EW10-SC59-4-6		Archive	0	(SM) Moist, dense, dark gray, slightly silty, f-SAND and occasional stratified beds of SILT (ML).	
6–7	EW10-SC59-6-8		Archive	0	(SM-ML) Moist, dense, dark gray, slightly silty, f-SAND and substantial stratified beds of SILT (ML).	
7–8					(ML) Damp, stiff, olive gray with black mottling, SILT. Silt is smooth and homogenous, rolls easily. Trace layers of decomposed wood (up to 1.25"-long).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8/14 ft = 98.6%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC59

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.5**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.6**	Recovery Length (ft): **13.8**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-41.0**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4210 N** E/LONG: **122 20.4341 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC59-8-10		Archive	0	(ML) Damp, stiff, olive gray with black mottling, SILT. Silt is smooth and homogenous, rolls easily. Trace layers of decomposed wood (up to 1.25"-long).	Native
9–12.9	EW10-SC59-10-12.9		Archive	0 0	(SM) Damp, dense, dark gray, silty, vf-SAND and occasional laminated and stratified beds of SILT (ML). @ 12.4': Grades to slightly silty	
12.9–13					End of core at 12.9'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.8/14 ft = 98.6%

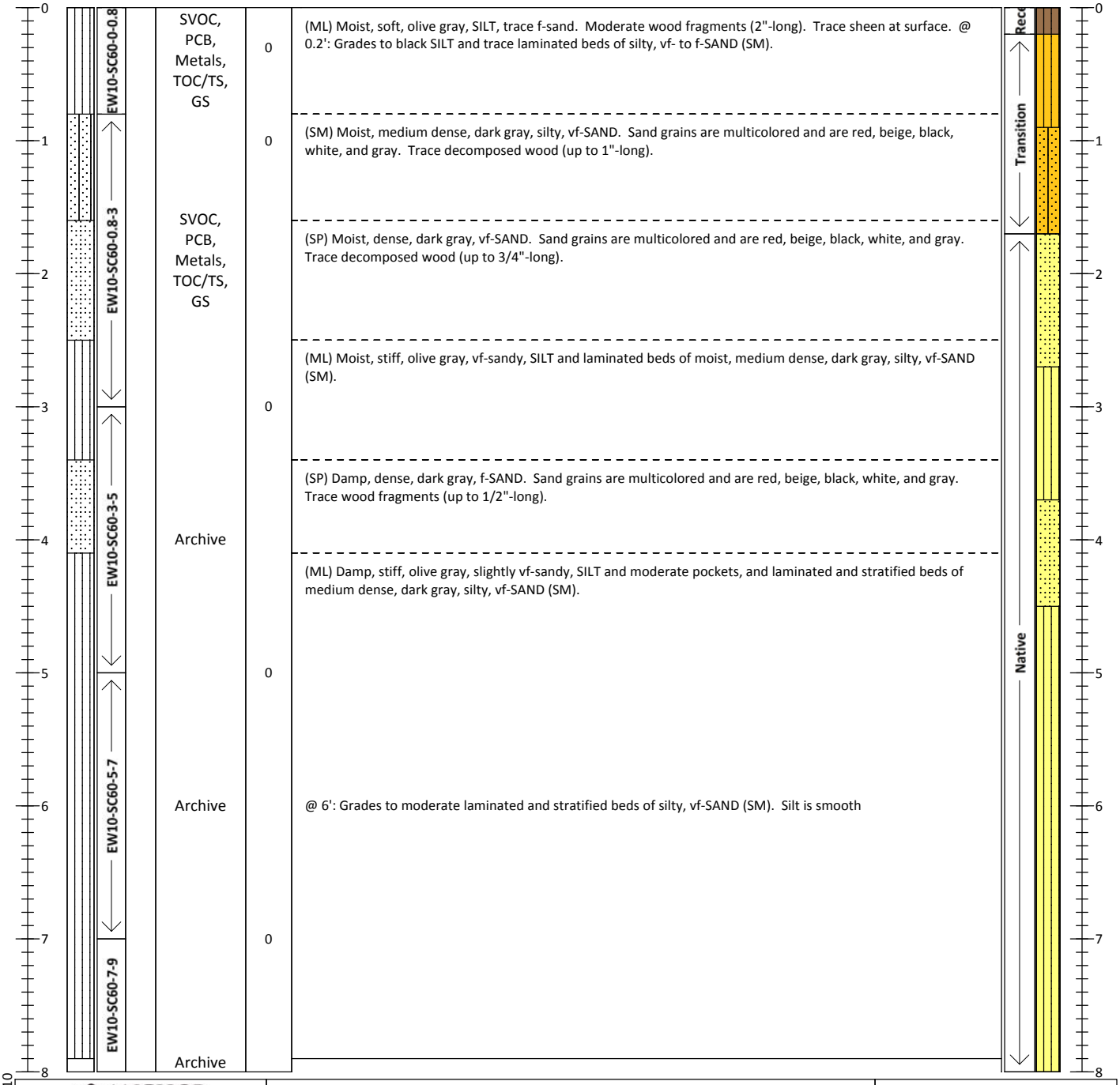
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC60

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.1**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.1**	Recovery Length (ft): **12.9**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-42.3**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4208 N** E/LONG: **122 20.5474 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–0.8	EW10-SC60-0-0.8		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, olive gray, SILT, trace f-sand. Moderate wood fragments (2"-long). Trace sheen at surface. @ 0.2': Grades to black SILT and trace laminated beds of silty, vf- to f-SAND (SM).	
0.8–3	EW10-SC60-0.8-3		SVOC, PCB, Metals, TOC/TS, GS	0	(SM) Moist, medium dense, dark gray, silty, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace decomposed wood (up to 1"-long).	
					(SP) Moist, dense, dark gray, vf-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace decomposed wood (up to 3/4"-long).	
					(ML) Moist, stiff, olive gray, vf-sandy, SILT and laminated beds of moist, medium dense, dark gray, silty, vf-SAND (SM).	
3–5	EW10-SC60-3-5		Archive	0	(SP) Damp, dense, dark gray, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments (up to 1/2"-long).	
5–7	EW10-SC60-5-7		Archive	0	(ML) Damp, stiff, olive gray, slightly vf-sandy, SILT and moderate pockets, and laminated and stratified beds of medium dense, dark gray, silty, vf-SAND (SM). @ 6': Grades to moderate laminated and stratified beds of silty, vf-SAND (SM). Silt is smooth	
7–8	EW10-SC60-7-9		Archive	0		



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery

Recovery Length/Penetration Depth:

12.9/14 ft = 92.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC60

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.1**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.1**	Recovery Length (ft): **12.9**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-42.3**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4208 N** E/LONG: **122 20.5474 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC60-7-9				(ML) Same as above @ 6'.	Native
9–10	EW10-SC60-9-11.9		Archive	0	(SM) Damp, dense, dark gray, slightly silty, f-SAND and trace laminated beds of SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
10–11				0	(ML) Damp, stiff, olive gray, clayey, SILT. Silt is smooth, rolls easily.	
11–12					(SP) Damp, dense, dark gray, vf- to f-SAND. Trace wood fragments (up to 1/2"-long) and trace decomposed black layers of stain from decomposed wood at basal contact.	
12–16					End of core at 12.0'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
12.9/14 ft = 92.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC61

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.9**	Recovery Length (ft): **13.3**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-42.7**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4292 N** E/LONG: **122 20.6012 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–0.1	SC61-0-1		SVOC, PCB, Metals, TOC/TS, GS	0 0.1	(SM) Moist, soft, olive gray, very silty, vf- to f-SAND. Trace wood (up to 1/2"-long). Moderate H2S odor. @ 0.2': Piece of plastic tubing with rust-like coloration (4.5"-long)	Recent
0.1–7	EW10-SC61-1-3		SVOC, PCB, Metals, TOC/TS, GS	2.9	(ML) Moist, soft, olive gray, slightly vf- to f-sandy SILT and moderate pockets and laminated beds of silty, f-SAND (SM) and moderate wood fragments. Sand grains are multicolored and are red, beige, black, white, and gray. Moderate H2S odor. @ 2': Grades to sandy, SILT and moderate diagonal stratified beds of silty, vf- to f-SAND (SM).	Transition
7–37.2	EW10-SC61-3-5			7 37.2	(SM) Moist, medium dense, dark gray, slightly silty, SAND and moderate laminated and stratified beds of sandy, SILT (ML). Trace wood fragments (1"-long).	Transition
37.2–155.5	EW10-SC61-3-5		Archive	155.5	VOID	Transition
155.5–22	EW10-SC61-3-5				(ML) Moist, medium stiff, olive gray, vf-sandy, SILT and laminated and stratified beds of damp, medium dense, slightly silty, SAND. Sand grains are multicolored and are red, beige, black, white, and gray.	Transition
22–7	EW10-SC61-5-7		Archive	22 45	(SP) Damp, dense, dark gray, f-SAND and moderate pockets and stratified beds of SILT (ML). Moderate layers of decomposed wood (up to 1/8"-long). @ 6.4': Wood layers become 1"-thick to basal contact (1.5"-long)	Native
7–15	EW10-SC61-7-9		Archive	7 15		Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC61

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **3.7**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **46.9**	Recovery Length (ft): **13.3**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-42.7**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.4292 N** E/LONG: **122 20.6012 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC61-7-9			170 19.2	(SP) Damp, dense, dark gray, f-SAND and moderate pockets and stratified beds of SILT (ML). Moderate layers of decomposed wood (up to 1/8"-long).	Native
9–11.7	EW10-SC61-9-11		Archive	0	(ML) Damp, stiff, olive gray, SILT and stratified beds of slightly silty, SAND (SM). @ 11.2': 1.5"-thick diagonal bed of soft, olive gray, SILT (ML) @ 11.4': Grades to sandy, SILT	
11.7–12.7	EW10-SC61-11-12.7		Archive	0	(SP) Damp, dense, dark gray, f-SAND. (ML) Damp, stiff, olive gray, SILT. End of core at 12.7'.	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC62

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **61.7**	Recovery Length (ft): **13**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-54.5**	Process Date: **3/11/2010**
Contractor: **MSS**	N/LAT: **47 35.4654 N** E/LONG: **122 20.7328 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths; In-Situ Depths Shown on Right; Classification Scheme: USCS)	*In-situ* Depth (ft) & Graphic Log
0–1.7	EW10-SC62-0-2		SVOC, PCB, Metals, TOC/TS, GS	0	(SM) Moist, loose, olive gray with black mottling, silty, SAND. Sand grains are multicolored and are red, beige, black, white, and gray. Trace wood fragments.	Rec
1.7–3.3	EW10-SC62-2-3.3		SVOC, PCB, Metals, TOC/TS, GS	0	(ML) Moist, soft, olive gray with black mottling, slightly vf-sandy, slightly clayey, SILT and occasional pockets (1/2"-diameter) and laminated beds of silty, SAND (SM). Sand grains are multicolored and are red, beige, black, white, and gray. Silt rolls easily. Trace biota (worm tube).	Transition
				0	@ 1.7': Grades to moderate pockets and laminated beds of silty, SAND (SM).	
3.3–5.4	EW10-SC62-3.3-5.4		Archive	0	(SM) Damp, dense, dark gray, slightly silty, f-SAND.	
				0	(ML) Moist, medium stiff, olive gray with black mottling, slightly f-sandy, SILT and occasional pockets (up to 1/4"-diameter) of slightly silty, f-SAND (SM).	Native
5.4–7	EW10-SC62-5.4-7		Archive	0	(SM) Moist, medium dense, dark gray, very silty, f-SAND and occasional stratified beds of moist, medium stiff, olive gray, SILT (ML).	
7–9.5	EW10-SC62-7-9.5			0	(ML) Moist, medium stiff, olive gray, slightly clayey, SILT and trace pockets of very silty, f-SAND (SM).	

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/14 ft = 92.9%

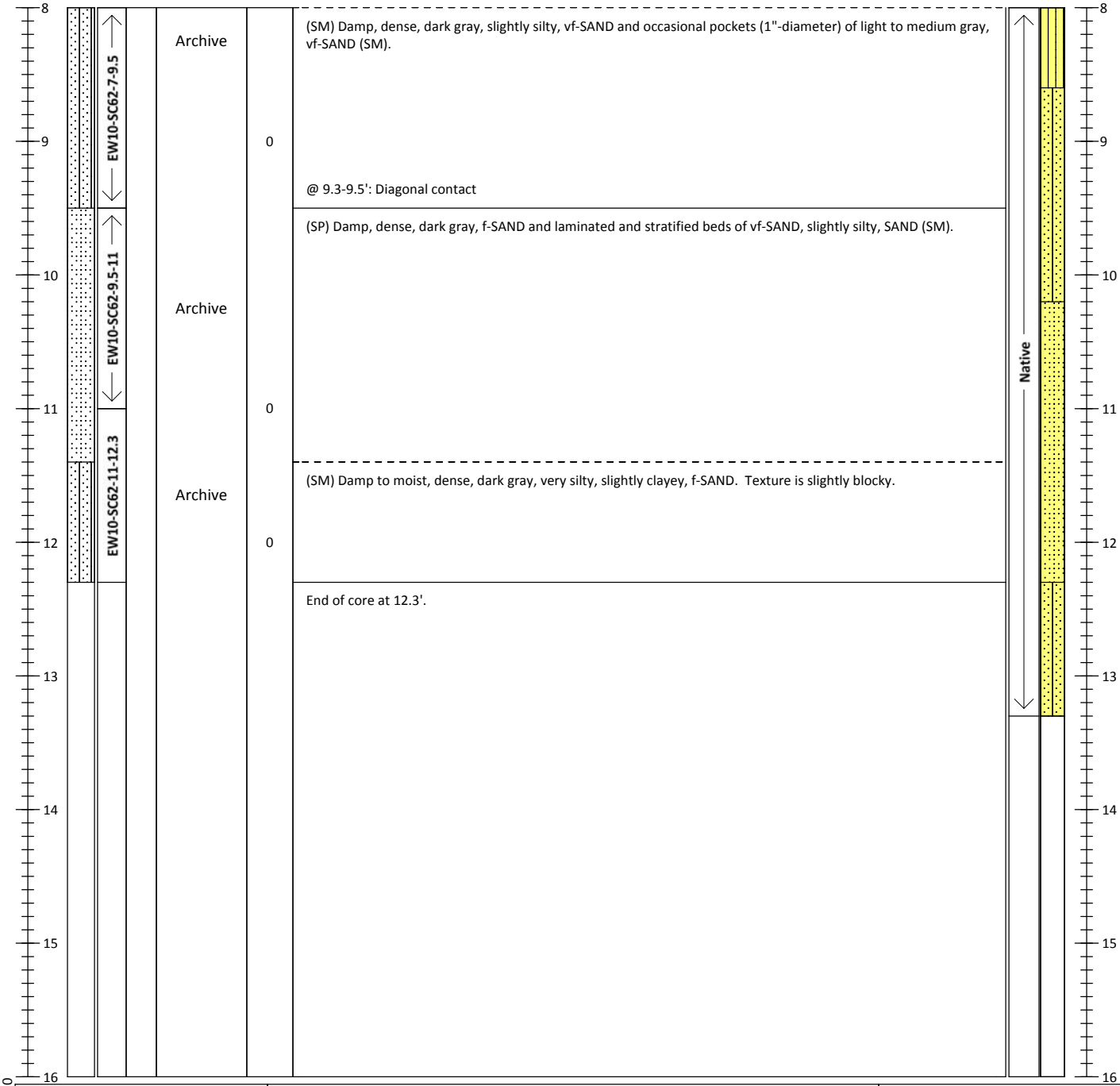
Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC62

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **6.8**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **61.7**	Recovery Length (ft): **13**
Collection Date: **3/9/2010**	Surveyed Mudline Elevation (ft): **-54.5**	Process Date: **3/11/2010**
Contractor: **MSS**	N/LAT: **47 35.4654 N** E/LONG: **122 20.7328 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/ML**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC62-7-9.5		Archive	0	(SM) Damp, dense, dark gray, slightly silty, vf-SAND and occasional pockets (1"-diameter) of light to medium gray, vf-SAND (SM). @ 9.3-9.5': Diagonal contact	Native
9–11	EW10-SC62-9.5-11		Archive	0	(SP) Damp, dense, dark gray, f-SAND and laminated and stratified beds of vf-SAND, slightly silty, SAND (SM).	
11–12.3	EW10-SC62-11-12.3		Archive	0	(SM) Damp to moist, dense, dark gray, very silty, slightly clayey, f-SAND. Texture is slightly blocky.	
12.3–14					End of core at 12.3'.	



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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13/14 ft = 92.9%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC63

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.3**	Recovery Length (ft): **13.2**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-53.7**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.5047 N** E/LONG: **122 20.6153 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–8	EW10-SC63-0-2 EW10-SC63-2-4 EW10-SC63-4-6 EW10-SC63-6-8	✦	SVOC, PCB, Metals, TOC/TS, GS SVOC, PCB, Metals, TOC/TS, GS Archive Archive	0 0 11.4 13.9 4.5 0 0 0	(SP) Moist, medium dense, dark gray, vf-SAND and moderate pockets (1.5"-diameter) of moist, soft, olive gray, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Trace shell fragments. (ML) Damp, stiff, olive gray, SILT. Silt is homogenous and smooth. (SP) Damp, dense, dark gray, vf- to f-SAND. (ML) Moist, medium stiff, olive gray, SILT. (ML) Damp, dense, dark gray, slightly silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. (ML) Damp, stiff, olive gray, slightly vf-sandy, SILT. (SM) Damp, dense, dark gray, slightly silty, f-SAND. Sand grains are multicolored and are red, beige, black, white, and gray. (ML) Damp, stiff, olive gray, SILT and trace pockets of slightly silty, f-SAND. Silt is smooth, rolls easily.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC63

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **4.9**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.3**	Recovery Length (ft): **13.2**
Collection Date: **3/1/2010**	Surveyed Mudline Elevation (ft): **-53.7**	Process Date: **3/2/2010**
Contractor: **MSS**	N/LAT: **47 35.5047 N** E/LONG: **122 20.6153 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **LM/NS**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC63-8-10 EW10-SC63-10-12.5		Archive Archive	0 0 0	(ML) Damp, stiff, olive gray, SILT and trace pockets of slightly silty, f-SAND. Silt is smooth, rolls easily. @ 9.9': Grades to dry. Brittle texture @ 10.0': Grades to damp (SM) Damp, dense, dark gray, silty, vf-SAND and pockets, and laminated and stratified beds of SILT (ML). (ML) Damp, stiff, olive gray, vf-sandy, SILT. Occasional laminated and stratified beds of moist, medium dense, dark gray, silty, vf-SAND (SM). End of core at 12.6'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.2/14 ft = 94.3%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC100

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.4**	Recovery Length (ft): **13.6**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-52.8**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.8212 N** E/LONG: **122 20.7435 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–1	EW10-SC100-0-1.1		Butyltins	0	(FILL) Moist, soft, black with olive gray mottling, m-sandy, SILT, trace subrounded gravel (up to 1/2"-diameter). Sand grains are green, white, red, and beige.	Recent + Fill
1–2	EW10-SC100-1.1-3		Butyltins	0	(SM-ML) Damp, dense, dark gray, silty, vf-SAND and substantial laminated and stratified beds of damp, medium stiff, olive-gray, SILT, trace vf-sand (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	Native
2–3				0		
3–4	EW10-SC100-3-5		Archive			
4–5					VOID (SM-ML) Same as above @ 1.1'.	
5–6	EW10-SC100-5-7		Archive	0		
6–7						
7–8	EW10-SC100-7-9		Archive	0		

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC100

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **5.6**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **59.4**	Recovery Length (ft): **13.6**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-52.8**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 34.8212 N** E/LONG: **122 20.7435 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–16	EW10-SC100-7-9; EW10-SC100-9-11; EW10-SC100-11-13		Archive; Archive	0; 0; 0	(SM-ML) Same as above @ 1.1'. @ 10.8': Layer (1/2"-thick) of wood fibers (up to 2"-long) End of core at 13.0'.	Native

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Footnote(1): Attempt 1 of 1

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.6/14 ft = 97.1%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC101

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.1**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **62.2**	Recovery Length (ft): **13.3**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-54.2**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 35.2424 N** E/LONG: **122 20.7412 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
0–2.3	EW10-SC101-0-2.3		Butyltins	0.4	(SP) Damp, medium dense, dark gray, f-SAND and moderate pockets and laminated beds of damp, stiff, olive gray, vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray. Occasional wood fragments (up to 1"-long, yellow), trace shell fragments.	Native
2.3–4	EW10-SC101-2.3-4		Butyltins	0	(SM-ML) Damp, medium dense, dark gray, silty, vf-SAND and substantial laminated and stratified beds of damp, stiff, olive gray, very vf-sandy, SILT (ML). Sand grains are multicolored and are red, beige, black, white, and gray.	
4–5.9	EW10-SC101-4-5.9		Archive	0		
5.9–8	EW10-SC101-5.9-8		Archive	0	(ML-SM) Damp, stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of damp, medium dense, dark gray, silty, vf-SAND (SM).	

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Footnote(1): Attempt 2 of 2

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Sediment Core Log

CORE: EW10-SC101

Project: **East Waterway SRI/FS**	Location: **East Waterway**	Tube Length (ft): **15**
Project #: **060003-01.17**	Water Elevation (ft)/Tide: **7.1**	Penetration Depth (ft): **14**
Client: **Port of Seattle**	Water Depth (ft): **62.2**	Recovery Length (ft): **13.3**
Collection Date: **3/3/2010**	Surveyed Mudline Elevation (ft): **-54.2**	Process Date: **3/4/2010**
Contractor: **MSS**	N/LAT: **47 35.2424 N** E/LONG: **122 20.7412 W**	Process Method: **Cut tube**
Vessel: **R/V Nancy Anne**	Horiz. Datum: **WGS 84** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75" round**	Logged By: **AO/JD**

Recoverd Detph (ft)	Recovered Interval & Sample	Geotech Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths In-Situ Depths Shown on Right Classification Scheme: USCS	*In-situ* Depth (ft) & Graphic Log
8–9	EW10-SC101-8-10		Archive	0	(ML-SM) Damp, stiff, olive gray, vf-sandy, SILT and substantial laminated and stratified beds of damp, medium dense, dark gray, silty, vf-SAND (SM).	Native
9–10						
10–11	EW10-SC101-10-12.7		Archive	0		
11–12						
12–13				0	End of core at 12.7'.	
13–14						
14–15						
15–16						

ANCHOR QEA
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Footnote(1): Attempt 2 of 2

Footnote (2):

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14 ft = 95.0%

Revised 6-16-2010

Appendix C Data Management

AVERAGING LABORATORY REPLICATE SAMPLES

Chemical concentrations obtained from the analysis of laboratory replicate samples (two or more analyses of the same sample) will be averaged for a closer representation of the "true" concentration as compared to the result of a single analysis. Averaging rules are dependent on whether the individual results are detected concentrations or reporting limits (RLs) for undetected chemicals. If all concentrations are detected for a single chemical, the values are simply averaged arithmetically for the sample and its associate laboratory replicate sample(s). If all concentrations are undetected for a given parameter, the minimum RL is selected. If the concentrations are a mixture of detected concentrations and RLs, any two or more detected concentrations are averaged arithmetically and RLs ignored. If there is a single detected concentration and one or more RLs, the detected concentration is reported. The latter two rules are applied regardless of whether the RLs are higher or lower than the detected concentration.

LOCATION AVERAGING

Results of chemical concentrations of discrete samples collected at a single sampling location that are submitted to the laboratory as individual samples and analyzed separately will be averaged for the purposes of mapping a single concentration per location. The averaging rules used for location averaging are the same as for laboratory replicate samples described above. This type of averaging is performed when multiple sediment samples are collected from the same location at the same time. For example: a sample and its field duplicate sample, often referred to as a split sample (PSEP 1997).

SIGNIFICANT FIGURES AND CALCULATIONS

Analytical laboratories report results with various numbers of significant figures depending on the laboratory's standard operating procedures, the instrument, the chemical, and the reported chemical concentration relative to the RL. The reported (or assessed) precision of each result is explicitly stored in the project database by recording the number of significant figures. Tracking of significant figures is used when calculating analyte sums and performing other data summaries. When a calculation involves addition, such as totaling PCBs, the calculation can only be as precise as the least precise number that went into the calculation. For example:

> 210 + 19 = 229 would be reported as 230 because although 19 is reported to two significant digits, the trailing zero in the number 210 is not significant.

When a calculation involves multiplication or division, the final result is rounded at the end of the calculation to reflect the value used in the calculation with the fewest significant figures. For example:

> 59.9 × 1.2 = 71.88 would be reported as 72 because there are two significant figures in the number 1.2.

When rounding, if the number following the last significant figure is less than 5, the digit is left unchanged. If the number following the last significant figure is equal to or greater than 5, the digit is increased by 1.

Many of the Washington State Sediment Management Standards (SMS) chemical criteria are in units normalized to the TOC content in the sediment sample (i.e., milligrams per kilogram organic carbon [mg/kg OC]). Only samples with TOC concentrations greater than or equal to 0.5% or less than or equal to 4.0% are considered appropriate for OC normalization. Samples with TOC concentrations less than 0.5% or greater than 4.0% are compared to dry weight chemical criteria. Chemical concentrations originally in units of micrograms per kilogram (µg/kg) dry weight were converted to mg/kg OC using the following equation:

$$\frac{(C_{\mu g/kg\ dry\ weight}) \times (0.001\ mg/\mu g)}{TOC}$$

Where:

C = the chemical concentration

TOC = the percent total organic carbon on a dry weight basis, expressed as a decimal (e.g., 1% = 0.01)

BEST RESULT SELECTION FOR MULTIPLE RESULTS

In some instances, the laboratory generates more than one result for a chemical for a given sample. Multiple results can occur for several reasons, including: 1) the original result did not meet the laboratory's internal quality control (QC) guidelines, and a reanalysis was performed; 2) the original result did not meet other project data quality objectives, such as a sufficiently low RL, and a reanalysis was performed; or 3) two different analytical methods were used for that chemical. In each case, a single best result is selected for use. The procedures for selecting the best result differ depending on whether a single or multiple analytical methods are used for that chemical.

For the same analytical method, if the results are:

- Detected and not qualified, then the result from the lowest dilution is selected, unless multiple results from the same dilution are available, in which case, the result with the highest concentration is selected.
- A combination of estimated and unqualified detected results, then the unqualified result is selected. This situation most commonly occurs when the original result is outside of calibration range, thus requiring a dilution.

- All estimated, then the "best result" is selected using best professional judgment in consideration of the rationale for qualification. For example, a result qualified based on laboratory replicate results outside of QC objectives for precision would be preferred to a qualified result that is outside the calibration range.
- A combination of detected and undetected results, then the detected result is selected. If there is more than one detected result, the applicable rules for multiple results (as discussed above) are followed.
- All undetected results, then the lowest RL is selected.

If the multiple results are from different analytical methods, then the result from the preferred method specified in the quality assurance project plan (QAPP) or based on the consensus of the professional opinions of project chemists was selected.

The following rules are applied to multiple results from different analytical methods:

- For detected concentrations analyzed by the SVOC full-scan and selective ion monitoring (SIM) methods (i.e., PAHs), the highest detected concentration is selected. If the result by one method is detected and the result by the other method is not detected, then the detected result is selected for reporting, regardless of the method. If results are reported as non-detected by both methods, the undetected result with the lowest RL is selected. The SIM method is more analytically sensitive than the full-scan SVOC method, and the undetected results are generally reported at a lower RL by the SIM method than by the full-scan method. Therefore, the SIM method is selected for non-detected results unless an analytical dilution or analytical interferences elevated the SIM RL above the SVOC full-scan RL.
- Hexachlorobenzene and hexachlorocyclopentadiene are analyzed by EPA Methods 8081A, 8270, and/or 8270-SIM. The result from the method with the greatest sensitivity (i.e., lowest RL) is selected if all results are undetected. EPA Method 8081A results are generally selected, when available, because the standard laboratory RLs from this analysis are significantly lower than those from EPA Methods 8270 and 8270-SIM. When chemicals are detected, the detected result with the highest concentration is selected unless the detected concentration is qualified as estimated or tentatively identified, in which case the rule designating treatment of qualified and unqualified data would apply.

CALCULATED TOTALS

Total PCBs, total dichloro-diphenyl-trichloroethane (DDTs), total PAHs, and total chlordane are calculated by summing the detected values for the individual components available for each sample. For individual samples in which none of the individual components is detected, the total value is given a value equal to the highest

RL of an individual component, and assigned the same qualifier (U or UJ), indicating an undetected result. Concentrations for the analyte sums are calculated as follows:

- **Total PCBs** are calculated, in accordance with the methods of the SMS, using only detected values for seven Aroclor mixtures.[1] For individual samples in which none of the seven Aroclor mixtures is detected, total PCBs are given a value equal to the highest RL of the seven Aroclors and assigned a U-qualifier indicating the lack of detected concentrations.
- **Total low-molecular-weight PAHs (LPAHs), high-molecular-weight PAHs (HPAHs), PAHs, and benzofluoranthenes** are also calculated in accordance with the methods of the SMS. Total LPAHs are the sum of detected concentrations for naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene. Total HPAHs are the sum of detected concentrations for fluoranthene, pyrene, benzo(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene. Total benzofluoranthenes are the sum of the b (i.e., benzo(b)fluoranthene), j, and k isomers. Because the j isomer is rarely quantified, this sum is typically calculated with only the b and k isomers. For samples in which all individual compounds within any of the three groups described above are undetected, the single highest RL for that sample represents the sum.
- **Total DDTs** are calculated using only detected values for the DDT isomers: 2,4′-DDD; 4,4′-DDD; 2,4′-DDE; 4,4′-DDE; 2,4′-DDT; and 4,4′-DDT. For individual samples in which none of the isomers are detected, total DDTs are given a value equal to the highest RL of the six isomers and assigned a U-qualifier, indicating the lack of detected concentrations.
- **Total chlordane** is calculated using only detected values for the following compounds: alpha-chlordane, gamma-chlordane, oxychlordane, cis-nonachlor, and trans-nonachlor. For individual samples in which none of these compounds is detected, total chlordane is given a value equal to the highest RL of the five compounds listed above and assigned a U-qualifier, indicating the lack of detected concentrations.

CALCULATION OF DIOXIN/FURAN CONGENER TEQS

Dioxin/furan congener TEQs are calculated using the WHO consensus TEF values (Van den Berg et al. 2006) for mammals as presented in Table E-2. The TEQ is calculated as the sum of each congener concentration multiplied by the corresponding TEF value. When the congener concentration is reported as undetected, then the TEF is multiplied by half the RL.

---

[1] Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Table 1. Dioxin/furan congener TEF values for mammals

Dioxin/Furan Congener	TEF Value (unitless)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	0.01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	0.1
1,2,3,7,8-Pentachlorodibenzofuran	0.03
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	1
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1
2,3,4,7,8-Pentachlorodibenzofuran	0.3
2,3,7,8-Tetrachlorodibenzofuran	0.1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1
Octachlorodibenzofuran	0.0003
Octachlorodibenzo-p-dioxin	0.0003

TEF – toxic equivalency factor

CALCULATION OF CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBONS

Carcinogenic polycyclic aromatic hydrocarbons (cPAH) values are calculated using TEF values (California EPA 1994; Ecology 2001) based on the individual PAH component's relative toxicity to benzo(a)pyrene. TEF values are presented in Table E-3. The cPAH is calculated as the sum of each individual PAH concentration multiplied by the corresponding TEF value. When the individual PAH component concentration is reported as non-detected, then the TEF is multiplied by half the RL.

Table 2. cPAH TEF Values

cPAH	TEF Value (unitless)
Benzo(a)pyrene	1
Benzo(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.1
Bibenz(a,h)anthracene	0.4
Indeno(1,2,3-cd)pyrene	0.1
Chrysene	0.01

cPAH – carcinogenic polycyclic aromatic hydrocarbon
TEF – toxic equivalency factor

REFERENCES

California EPA. 1994. Health effects of benzo(a)pyrene. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Berkeley, CA.

Ecology. 2001. Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC. Publication No. 94-06. Toxics Cleanup Program, Washington State Department of Ecology, Olympia, WA.

PSEP. 1997. Recommended guidelines for sampling marine sediment, water column, and tissue in Puget Sound. Final report. Prepared for the US Environmental Protection Agency, Seattle, WA. Puget Sound Water Quality Action Team, Olympia, WA.

Van den Berg M, Birnbaum LS, Denison M, De Vito M, Farland W, Feeley M, Fiedler H, Hakansson H, Hanberg A, Haws L, Rose M, Safe S, Schrenk D, Tohyama C, Tritscher A, Tuomisto J, Tysklind M, Walker N, Peterson RE. 2006. The 2005 World Health Organization reevaluation of human and mammalian toxic equivalency factors for dioxins and dioxin-like compounds. Tox Sci 93(2):223-241.

APPENDIX D

Data Validation Reports

EcoChem, INC.
Environmental Data Quality

DATA VALIDATION REPORT

East Waterway Subsurface Sediment Coring

Prepared for:

Windward Environmental, LLC
200 West Mercer Street, Suite 401
Seattle, Washington 98119

Prepared by:

EcoChem, Inc.
710 Second Avenue, Suite 660
Seattle, Washington 98104

EcoChem Project: C22018-4

May 19, 2010

Approved for Release:

Chris Ransom
Project Manager
EcoChem, Inc.

PROJECT NARRATIVE

Basis for the Data Validation

This report summarizes the results of summary (EPA Stage 2B) and full (EPA Stage 3/4) validation performed on sediment and quality control sample data for the East Waterway Subsurface Sediment Coring. A complete list of samples is provided in the **SAMPLE INDEX**.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Semivolatile Organic Compounds	EPA 8270D	Melissa Swanson	Eric Strout
Select Semivolatile Organic Compounds	EPA 8270D-SIM	Lucy Panteleeff	Melissa Swanson
Polychlorinated Biphenyls	EPA 8082		
Pesticides	EPA 8081B		
Organotins	Krone 1988 GCMS-SIM		
Metals	EPA 6010B, 7471A, 200.8	Megan Kilner/Lea Beard	Chris Ransom
Total Organic Carbon, Total Solids	Plumb, 1981, EPA 160.3		
Grain Size	PSEP		
Geotech [1]	ASTM D 4318, ASTM D 2937, ASTM D 854, ASTM D 2216	Megan Kilner	

1. Geotech parameters include: moisture content, bulk density, Atterberg limits, and specific gravity

The data were reviewed using guidance and quality control criteria documented in the analytical methods; the quality assurance project plan (QAPP) from the *Subsurface Sediment Sampling for Chemical Analyses in the East Waterway* (January 2010); *National Functional Guidelines for Inorganic Data Review* (USEPA 1994 & 2004); and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	SVOC	SIM	PCB	TBT	Pest	Metals	TOC	Grain Size	GeoTech
QL24	EW10-SC05-2.1	10-4569-QL24A									✓
	EW10-SC05-4.9	10-4570-QL24B									✓
	EW10-SC11-3	10-4571-QL24C									✓
	EW10-SC11-5	10-4572-QL24D									✓
	EW10-SC11-6.7	10-4573-QL24E									✓
QL26	EW10-SC-RB	10-4583-QL26A	✓		✓	✓	✓	✓			
QL56	EW10-SC03-0-2	10-4777-QL56A	✓	✓	✓			✓	✓	✓	
	EW10-SC03-2-4	10-4778-QL56B	✓	✓	✓			✓	✓	✓	
	EW10-SC04-0-2	10-4779-QL56C	✓	✓	✓			✓	✓	✓	
	EW10-SC04-2-4	10-4780-QL56D	✓	✓	✓			✓	✓	✓	
	EW10-SC05-0-2	10-4781-QL56E	✓	✓	✓			✓	✓	✓	
	EW10-SC05-2-4	10-4782-QL56F	✓	✓	✓			✓	✓	✓	
	EW10-SC06-0-2	10-4783-QL56G	✓	✓	✓			✓	✓	✓	
	EW10-SC06-2-4	10-4784-QL56H	✓	✓	✓			✓	✓	✓	
	EW10-SC08-0-2	10-4785-QL56I	✓	✓	✓			✓	✓	✓	
	EW10-SC08-2-4	10-4786-QL56J	✓	✓	✓			✓	✓	✓	
	EW10-SC11-0-2	10-4787-QL56K	✓	✓	✓			✓	✓	✓	
	EW10-SC11-2-4	10-4788-QL56L	✓	✓	✓			✓	✓	✓	
	EW10-SC35-0-2	10-4789-QL56M	✓	✓	✓			✓	✓	✓	
	EW10-SC35-2-4	10-4790-QL56N	✓	✓	✓			✓	✓	✓	
	EW10-SC41-0-0.6	10-4791-QL56O	✓	✓	✓			✓	✓	✓	
	EW10-SC41-0.6-2	10-4792-QL56P	✓	✓	✓			✓	✓	✓	
	EW10-SC45-0-1	10-4793-QL56Q	✓	✓	✓			✓	✓	✓	
	EW10-SC45-1-1.7	10-4794-QL56R	✓	✓	✓			✓	✓	✓	
QL84	EW10-SC20-5.5	10-4939-QL84A									✓
	EW10-SC20-10.5	10-4940-QL84B									✓
	EW10-SC43-0.5	10-4941-QL84C									✓
	EW10-SC43-7.6	10-4942-QL84D									✓
QL86	EW10-SC19-0-2.5	10-4948-QL86A	✓	✓	✓			✓	✓	✓	
	EW10-SC19-2.5-4	10-4949-QL86B	✓	✓	✓			✓	✓	✓	
	EW10-SC20-0.4-2.4	10-4950-QL86C	✓	✓	✓			✓	✓	✓	
	EW10-SC20-2.4-4.4	10-4951-QL86D	✓	✓	✓			✓	✓	✓	
	EW10-SC21-0-2	10-4952-QL86E	✓	✓	✓			✓	✓	✓	
	EW10-SC21-2-4	10-4953-QL86F	✓	✓	✓			✓	✓	✓	
	EW10-SC37-0-2	10-4954-QL86G	✓	✓	✓			✓	✓	✓	
	EW10-SC37-2-3.9	10-4955-QL86H	✓	✓	✓			✓	✓	✓	
	EW10-SC38-0-0.8	10-4956-QL86I	✓	✓	✓			✓	✓	✓	
	EW10-SC38-0.8-2	10-4957-QL86J	✓	✓	✓			✓	✓	✓	
	EW10-SC43-0-1.3	10-4958-QL86K	✓	✓	✓			✓	✓	✓	
	EW10-SC43-1.3-4	10-4959-QL86L	✓	✓	✓			✓	✓	✓	
	EW10-SC46-0-2.3	10-4960-QL86M	✓	✓	✓			✓	✓	✓	
	EW10-SC46-2.3-4	10-4961-QL86N	✓	✓	✓			✓	✓	✓	
	EW10-SC55-0-2	10-4962-QL86O	✓	✓	✓			✓	✓	✓	
	EW10-SC55-2-4	10-4963-QL86P	✓	✓	✓			✓	✓	✓	
	EW10-SC201-0-2.5	10-4964-QL86Q	✓	✓	✓			✓	✓	✓	
	EW10-SC201-2.5-4	10-4965-QL86R	✓	✓	✓			✓	✓	✓	
	EW10-SC202-0-2	10-4966-QL86S	✓	✓	✓			✓	✓	✓	
	EW10-SC202-2-3.9	10-4967-QL86T	✓	✓	✓			✓	✓	✓	

Sample Index
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	SVOC	SIM	PCB	TBT	Pest	Metals	TOC	Grain Size	GeoTech
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	✓	✓	✓			✓	✓	✓	
	EW10-SC07B-2.3-4	10-5172-QM30B	✓	✓	✓			✓	✓	✓	
	EW10-SC10-0-2.4	10-5173-QM30C	✓	✓	✓			✓	✓	✓	
	EW10-SC10-2.4-4	10-5174-QM30D	✓	✓	✓			✓	✓	✓	
	EW10-SC12-0-2	10-5175-QM30E	✓	✓	✓			✓	✓	✓	
	EW10-SC12-2-3.1	10-5176-QM30F	✓	✓	✓			✓	✓	✓	
	EW10-SC15-0-2.3	10-5177-QM30G	✓	✓	✓			✓	✓	✓	
	EW10-SC15-2.3-4	10-5178-QM30H	✓	✓	✓			✓	✓	✓	
	EW10-SC18-0-2	10-5179-QM30I	✓	✓	✓			✓	✓	✓	
	EW10-SC18-2-4	10-5180-QM30J	✓	✓	✓			✓	✓	✓	
	EW10-SC58-0-1.8	10-5181-QM30K	✓	✓	✓			✓	✓	✓	
	EW10-SC58-1.8-4	10-5182-QM30L	✓	✓	✓			✓	✓	✓	
	EW10-SC59-0-2	10-5183-QM30M	✓	✓	✓			✓	✓	✓	
	EW10-SC59-2-4	10-5184-QM30N	✓	✓	✓			✓	✓	✓	
	EW10-SC57-0-2	10-5185-QM30O	✓	✓	✓			✓	✓	✓	
	EW10-SC57-2-4	10-5186-QM30P	✓	✓	✓			✓	✓	✓	
	EW10-SC60-0-0.8	10-5187-QM30Q	✓	✓	✓			✓	✓	✓	
	EW10-SC60-0.8-3	10-5188-QM30R	✓	✓	✓			✓	✓	✓	
	EW10-SC61-0-1	10-5189-QM30S	✓	✓	✓			✓	✓	✓	
	EW10-SC61-1-3	10-5190-QM30T	✓	✓	✓			✓	✓	✓	
QM44	EW10-SC30-2.0	10-5293-QM44A									✓
	EW10-SC30-6.0	10-5294-QM44B									✓
	EW10-SC30-10.8	10-5295-QM44C									✓
	EW10-SC59-2	10-5296-QM44D									✓
	EW10-SC59-3.5	10-5297-QM44E									✓
	EW10-SC63-1.2	10-5298-QM44F									✓
	EW10-SC63-3	10-5299-QM44G									✓
QM57	EW10-SC23-0-1.3	10-5375-QM57A	✓	✓	✓			✓	✓	✓	
	EW10-SC23-1.3-3.2	10-5376-QM57B	✓	✓	✓			✓	✓	✓	
	EW10-SC26-0-2.7	10-5377-QM57C	✓	✓	✓			✓	✓	✓	
	EW10-SC26-2.7-4	10-5378-QM57D	✓	✓	✓			✓	✓	✓	
	EW10-SC27-0-2	10-5379-QM57E	✓	✓	✓			✓	✓	✓	
	EW10-SC27-2-4	10-5380-QM57F	✓	✓	✓			✓	✓	✓	
	EW10-SC30-0-2	10-5381-QM57G	✓	✓	✓			✓	✓	✓	
	EW10-SC30-2-4.3	10-5382-QM57H	✓	✓	✓			✓	✓	✓	
	EW10-SC32-0-2	10-5383-QM57I	✓	✓	✓			✓	✓	✓	
	EW10-SC32-2-4	10-5384-QM57J	✓	✓	✓			✓	✓	✓	
	EW10-SC51-0-2	10-5423-QM57K	✓	✓	✓			✓	✓	✓	
	EW10-SC51-2-3.8	10-5424-QM57L	✓	✓	✓			✓	✓	✓	
	EW10-SC63-0-2	10-5425-QM57M	✓	✓	✓			✓	✓	✓	
	EW10-SC63-2-4	10-5426-QM57N	✓	✓	✓			✓	✓	✓	
	EW10-SC101-0-2.3	10-5427-QM57O							✓		
	EW10-SC101-2.3-4	10-5428-QM57P							✓		
	EW10-SC100-0-1.1	10-5429-QM57Q							✓		
	EW10-SC100-1.1-3	10-5430-QM57R							✓		
	EW10-SC203-0-2	10-5431-QM57S	✓	✓	✓			✓	✓	✓	
	EW10-SC203-2-4.3	10-5432-QM57T	✓	✓	✓			✓	✓	✓	
	EW10-SC204-0-2	10-5433-QM57U	✓	✓	✓			✓	✓	✓	

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SDG	Sample ID	Lab ID	SVOC	SIM	PCB	TBT	Pest	Metals	TOC	Grain Size	GeoTech
QM57	EW10-SC204-2-4	10-5434-QM57V	✓	✓	✓			✓	✓	✓	
	EW10-SC29-0-2	10-5435-QM57W	✓	✓	✓			✓	✓	✓	
	EW10-SC29-2-3.9	10-5436-QM57X	✓	✓	✓			✓	✓	✓	
QM68	EW10-SC101-0-2.3	10-5464-QM68A				✓					
	EW10-SC101-2.3-4	10-5465-QM68B				✓					
	EW10-SC100-0-1.1	10-5466-QM68C				✓					
	EW10-SC100-1.1-3	10-5467-QM68D				✓					
	EW10-SC06-0-2	10-5468-QM68E				✓					
	EW10-SC06-2-4	10-5469-QM68F				✓					
	EW10-SC37-0-2	10-5470-QM68G				✓					
	EW10-SC37-2-3.9	10-5471-QM68H				✓					
	EW10-SC43-0-1.3	10-5472-QM68I				✓					
	EW10-SC43-1.3-4	10-5473-QM68J				✓					
	EW10-SC46-0-2.3	10-5474-QM68K				✓					
	EW10-SC46-2.3-4	10-5475-QM68L				✓					
	EW10-SC10-0-2.4	10-5476-QM68M				✓					
	EW10-SC10-2.4-4	10-5477-QM68N				✓					
	EW10-SC18-0-2	10-5478-QM68O				✓					
	EW10-SC18-2-4	10-5479-QM68P				✓					
	EW10-SC59-0-2	10-5480-QM68Q				✓					
	EW10-SC59-2-4	10-5481-QM68R				✓					
QM75	EW10-SC48-2	10-5543-QM75A									✓
	EW10-SC48-8.9	10-5544-QM75B									✓
	EW10-SC51-2	10-5545-QM75C									✓
	EW10-SC51-8.9	10-5546-QM75D									✓
QM80	EW10-SC33-0-2	10-5591-QM80A	✓	✓	✓			✓	✓	✓	
	EW10-SC33-2-3.5	10-5592-QM80B	✓	✓	✓			✓	✓	✓	
	EW10-SC13-0-1.6	10-5593-QM80C	✓	✓	✓			✓	✓	✓	
	EW10-SC13-1.6-4	10-5594-QM80D	✓	✓	✓			✓	✓	✓	
	EW10-SC48-0-2	10-5595-QM80E	✓	✓	✓			✓	✓	✓	
	EW10-SC48-2-4.7	10-5596-QM80F	✓	✓	✓			✓	✓	✓	
	EW10-SC50-0-1.6	10-5597-QM80G	✓	✓	✓			✓	✓	✓	
	EW10-SC50-1.6-4	10-5598-QM80H	✓	✓	✓			✓	✓	✓	
	EW10-SC52-0-2	10-5599-QM80I	✓	✓	✓			✓	✓	✓	
	EW10-SC52-2-4	10-5600-QM80J	✓	✓	✓			✓	✓	✓	
	EW10-SC53-0-2	10-5601-QM80K	✓	✓	✓			✓	✓	✓	
	EW10-SC53-2-4	10-5602-QM80L	✓	✓	✓			✓	✓	✓	
	EW10-SC54-0-2	10-5603-QM80M	✓	✓	✓			✓	✓	✓	
	EW10-SC54-2-4	10-5604-QM80N	✓	✓	✓			✓	✓	✓	
QN06	EW10-SC22-0-1.9	10-5828-QN06A	✓	✓	✓			✓	✓	✓	
	EW10-SC22-1.9-4	10-5829-QN06B	✓	✓	✓			✓	✓	✓	
	EW10-SC24-0-2	10-5830-QN06C	✓	✓	✓			✓	✓	✓	
	EW10-SC24-2-4.7	10-5831-QN06D	✓	✓	✓			✓	✓	✓	
	EW10-SC25-0.8-2.8	10-5832-QN06E	✓	✓	✓			✓	✓	✓	
	EW10-SC25-2.8-4.8	10-5833-QN06F	✓	✓	✓			✓	✓	✓	
	EW10-SC31-0.7-2.7	10-5834-QN06G	✓	✓	✓			✓	✓	✓	
	EW10-SC31-2.7-5.3	10-5835-QN06H	✓	✓	✓			✓	✓	✓	
	EW10-SC28-1-3	10-5836-QN06I	✓	✓	✓			✓	✓	✓	

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SDG	Sample ID	Lab ID	SVOC	SIM	PCB	TBT	Pest	Metals	TOC	Grain Size	GeoTech
QN06	EW10-SC28-3-5	10-5837-QN06J	✓	✓	✓			✓	✓	✓	
	EW10-SC16-0-1.9	10-5838-QN06K	✓	✓	✓			✓	✓	✓	
	EW10-SC16-1.9-4	10-5839-QN06L	✓	✓	✓			✓	✓	✓	
	EW10-SC14-0-2.8	10-5840-QN06M	✓	✓	✓			✓	✓	✓	
	EW10-SC14-2.8-5.3	10-5841-QN06N	✓	✓	✓			✓	✓	✓	
	EW10-SC17-0-2	10-5842-QN06O	✓	✓	✓			✓	✓	✓	
	EW10-SC17-2-4	10-5843-QN06P	✓	✓	✓			✓	✓	✓	
	EW10-SC09-0-2	10-5844-QN06Q	✓	✓	✓			✓	✓	✓	
	EW10-SC09-2-4	10-5845-QN06R	✓	✓	✓			✓	✓	✓	
	EW10-SC34-0.2-2.4	10-5846-QN06S	✓	✓	✓			✓	✓	✓	
	EW10-SC34-2.4-3.9	10-5847-QN06T	✓	✓	✓			✓	✓	✓	
QN38	EW10-SC36-0.9-3	10-6066-QN38A	✓	✓	✓			✓	✓	✓	
	EW10-SC36-3-5	10-6067-QN38B	✓	✓	✓			✓	✓	✓	
	EW10-SC39-0-2	10-6068-QN38C	✓	✓	✓			✓	✓	✓	
	EW10-SC39-2-3.4	10-6069-QN38D	✓	✓	✓			✓	✓	✓	
	EW10-SC40-0-1	10-6070-QN38E	✓	✓	✓			✓	✓	✓	
	EW10-SC40-1-4	10-6071-QN38F	✓	✓	✓			✓	✓	✓	
	EW10-SC42-0-2	10-6072-QN38G	✓	✓	✓			✓	✓	✓	
	EW10-SC42-2-4	10-6073-QN38H	✓	✓	✓			✓	✓	✓	
	EW10-SC44-0-2	10-6074-QN38I	✓	✓	✓			✓	✓	✓	
	EW10-SC44-2-4	10-6075-QN38J	✓	✓	✓			✓	✓	✓	
	EW10-SC47-0-2	10-6076-QN38K	✓	✓	✓			✓	✓	✓	
	EW10-SC47-2-3.6	10-6077-QN38L	✓	✓	✓			✓	✓	✓	
	EW10-SC49-0-1.6	10-6078-QN38M	✓	✓	✓			✓	✓	✓	
	EW10-SC49-1.6-4	10-6079-QN38N	✓	✓	✓			✓	✓	✓	
	EW10-SC56-0-2	10-6080-QN38O	✓	✓	✓			✓	✓	✓	
	EW10-SC56-2-4	10-6081-QN38P	✓	✓	✓			✓	✓	✓	
	EW10-SC62-0-2	10-6082-QN38Q	✓	✓	✓			✓	✓	✓	
	EW10-SC62-2-3.3	10-6083-QN38R	✓	✓	✓			✓	✓	✓	
QN43	EW10-SC14-0.8	10-6110-QN43A									✓
	EW10-SC14-2.4	10-6111-QN43B									✓
	EW10-SC14-7.5	10-6112-QN43C									✓
	EW10-SC22-1	10-6113-QN43D									✓
	EW10-SC22-4	10-6114-QN43E									✓
	EW10-SC36-0.5	10-6115-QN43F									✓
	EW10-SC36-1.4	10-6116-QN43G									✓
	EW10-SC36-6	10-6117-QN43H									✓
	EW10-SC56-2	10-6118-QN43I									✓
	EW10-SC56-4	10-6119-QN43J									✓
	EW10-SC56-8.5	10-6120-QN43K									✓
QO05	EW10-SC11-0-2	10-6536-QO05A					✓				
	EW10-SC11-2-4	10-6537-QO05B					✓				
	EW10-SC19-0-2.5	10-6538-QO05C					✓				
	EW10-SC19-2.5-4	10-6539-QO05D					✓				
	EW10-SC57-0-2	10-6540-QO05E					✓				
	EW10-SC57-2-4	10-6541-QO05F					✓				
	EW10-SC54-0-2	10-6542-QO05G					✓				
	EW10-SC54-2-4	10-6543-QO05H					✓				

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SDG	Sample ID	Lab ID	SVOC	SIM	PCB	TBT	Pest	Metals	TOC	Grain Size	GeoTech
QO05	EW10-SC23-0-1.3	10-6544-QO05I				✓					
	EW10-SC23-1.3-3.2	10-6545-QO05J				✓					
	EW10-SC26-0-2.7	10-6546-QO05K				✓					
	EW10-SC26-2.7-4	10-6547-QO05L				✓					
	EW10-SC51-0-2	10-6548-QO05M				✓					
	EW10-SC51-2-3.8	10-6549-QO05N				✓					
	EW10-SC33-0-2	10-6550-QO05O				✓					
	EW10-SC33-2-3.5	10-6551-QO05P				✓					
	EW10-SC50-0-1.6	10-6552-QO05Q				✓					
	EW10-SC50-1.6-4	10-6553-QO05R				✓					
QO07	EW10-SC39-0-2	10-6558-QO07A					✓				
	EW10-SC39-2-3.4	10-6559-QO07B					✓				
	EW10-SC17-0-2	10-6560-QO07C				✓					
	EW10-SC17-2-4	10-6561-QO07D				✓					
	EW10-SC36-0.9-3	10-6562-QO07E				✓					
	EW10-SC36-3-5	10-6563-QO07F				✓					
	EW10-SC40-0-1	10-6564-QO07G				✓					
	EW10-SC40-1-4	10-6565-QO07H				✓					
	EW10-SC44-0-2	10-6566-QO07I				✓					
	EW10-SC44-2-4	10-6567-QO07J				✓					
	EW10-SC47-0-2	10-6568-QO07K				✓					
	EW10-SC47-2-3.6	10-6569-QO07L				✓					
	EW10-SC49-0-1.6	10-6570-QO07M				✓					
	EW10-SC49-1.6-4	10-6571-QO07N				✓					
	EW10-SC56-0-2	10-6572-QO07O				✓					
	EW10-SC56-2-4	10-6573-QO07P				✓					

DATA VALIDATION REPORT
East Waterway – Subsurface Sediment Coring
Semivolatile Compounds by Method 8270D

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QL26	1 Rinsate Blank	Stage 2A
QL56	18 Sediment	Stage 4
QL86	20 Sediment	Stage 4
QM30	20 Sediment	Stage 2B
QM57	20 Sediment	Stage 2B
QM80	14 Sediment	Stage 2B
QN06	20 Sediment	Stage 2B
QN38	18 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables, with the exception noted below. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	2	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
	GC/MS Instrument Performance	1	Internal Standards
1	Initial Calibration (ICAL)	1	Field Duplicates
2	Continuing Calibration (CCAL)		Target Analyte List
2	Laboratory Blanks	1	Reporting Limits
1	Field Blanks	2	Reported Results
1	Surrogate Compounds	2	Compound Identification
2	Laboratory Control Samples (LCS)	1	Calculation Verification (full validation only)
1	Reference Materials		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The validation guidance documents state that the cooler temperatures should be within an advisory temperature range of 0°C to 6°C. The laboratory received a sample cooler with a temperature outside the control limit, at 6.3°C. There was insufficient time for the samples and coolers to reach the desired temperature as the laboratory received the samples within six hours of collection. This temperature outlier did not impact data quality and no qualifiers were assigned.

SDG QL56: The extract of Sample EW10-SC08-2-4 was lost during extraction. Additional sample was retrieved from archive, extracted, and analyzed within hold time criteria. No additional action was necessary.

Initial Calibration

SDG QN06: The relative percent difference (%RSD) value for hexachlorocyclopentadiene was outside the ±30% control limit, at 67%. This analyte was not detected in the associated samples; no qualifiers were applied.

Continuing Calibration

All relative response factor (RRF) values were greater than the 0.05 minimum control limits.

The percent difference (%D) values were within the ±25% control limits, with the exceptions noted below. For %D values that were indicative of a high bias, associated positive results were estimated (J-5B). For %D values that were indicative of a low bias, associated positive results and non-detects were estimated (J/UJ-5B). The following outliers resulted in qualification of data:

SDG QL56: CCAL 3/10/10 at 13:56: hexachlorocyclopentadiene – low bias (UJ-5B)

SDG QL86: CCAL 3/10/10 at 17:20: benzyl alcohol – low bias (UJ-5B)

SDG QM30: CCAL 3/12/10: 2,2'-oxybis(1-chloropropane) – low bias (UJ-5B)

CCAL 3/15/10 at 18:38: hexachlorocyclopentadiene, n-nitrosodiphenylamine, and fluoranthene – low bias (J/UJ-5B)

SDG QM57: CCAL 3/15/10 at 11:42: hexachlorocyclopentadiene – low bias (UJ-5B)

CCAL 3/16/10: hexachlorocyclopentadiene – low bias (UJ-5B)

SDG QM80: CCAL 3/18/10: hexachlorocyclopentadiene – low bias (UJ-5B)

CCAL 3/19/10: hexachlorocyclopentadiene – low bias (UJ-5B)

SDG QN06: CCAL 3/30/10: hexachlorocyclopentadiene – low bias (UJ-5B)

SDG QN38: CCAL 3/23/10: hexachlorocyclopentadiene and pentachlorophenol – low bias (UJ-5B)

CCAL 3/24/10: hexachlorocyclopentadiene and benzyl alcohol – low bias (UJ-5B)

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration reported in the blank (ten times for phthalates). If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not-detected (U-7). No action is taken if the sample result is greater than the action level, or for non-detected results.

The following analytes required qualification in one or more samples based on method blank contamination:

SDG QL56: bis(2-ethylhexyl)phthalate - 15 results

SDG QM57: bis(2-ethylhexyl)phthalate -7 results

SDG QN06: bis(2-ethylhexyl)phthalate - 11 results; pyrene – 1 result

Field Blanks

SDG QL26: One rinsate blank, EW10-SC-RB, was submitted. No target analytes were detected.

Surrogate Compounds

SDG QM57: The percent recovery (%R) values for d5-dinitrobenzene were greater than the upper control limit in the dilutions of Samples EW10-SC32-2-4 and EW10-SC204-2-4. One surrogate recovery outlier per acid or base/neutral fraction is allowed, so no action was taken.

SDG QN06: The %R value for d5-dinitrobenzene was greater than the upper control limit in Sample EW10-SC28-3-5. One surrogate recovery outlier per acid or base/neutral fraction is allowed. No qualifiers were applied for this single surrogate outlier.

Laboratory Control Samples

A laboratory control sample (LCS) was analyzed at the proper frequency of one per batch. The LCS recovery values were within the laboratory control limits, with the exceptions noted below. For LCS recoveries greater than the upper control limit, positive results in the associated samples were estimated (J-10) to indicate a potential high bias. For recoveries less than the lower control limit, associated positive results and non-detects were estimated (J/UJ-10) to indicate a potential low bias. If the recoveries were less than 10%, detected results were estimated (J-10) and reporting limits were rejected (R-10).

The following outliers resulted in qualification of data:

SDG QL26: phenol and pentachlorophenol – low bias (U-10)

SDG QL56: pentachlorophenol – low bias (UJ-10)

SDG QL86: 2,4-dimethylphenol and pentachlorophenol – low bias (UJ-10)

SDG QM57: 2-nitrophenol – low bias (UJ-10)

SDG QN06: 2,4-dimethylphenol and pentachlorophenol – low bias (UJ-10)

SDG QN38 pentachlorophenol – low bias (UJ-10)

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. Because SQ-1 values are reference values and are not certified, no action was taken based on the recovery outliers.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed at the required frequency. The MS/MSD recovery values were within the laboratory control limits, with the exceptions noted below. For MS/MSD recoveries greater than the upper control limit, positive results in the parent sample only were estimated (J-8) to indicate a potential high bias. For recoveries less than the lower control limit, positive results and reporting limits in the parent sample were estimated (J/UJ-8) to indicate a potential low bias. If the recoveries were less than 10%, detected results were estimated (J-8) and reporting limits were rejected (R-8). No action was taken if only one of the MS/MSD recoveries was outside of the control limits.

The MS/MSD RPD values were less than 50%, with some exceptions. There were no positive results associated with the RPD outliers; therefore no qualification of data was necessary based on laboratory precision.

The following MS/MSD recovery outliers resulted in qualification of data:

SDG QL56, QC Sample EW10-SC04-2-4

aniline - rejected (R-8)

naphthalene, 4-chloroaniline, 2-methylnaphthalene, acenaphthalene, dibenzofuran, fluorene, phenanthrene, anthracene, fluoranthene, benzo(a)anthracene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, carbazole, chrysene, benzo(g,h,i)perylene, and 1-methylnaphthalene – low bias (J/UJ-8)

SDG QL86, QC Sample EW10-SC20-0.4-2.4

aniline, 3,3'-dichlorobenzidine, 4-chloroaniline, and hexachlorocyclopentadiene - rejected (R-8)

3-nitroaniline and 4-nitroaniline – low bias (UJ-8)

SDG QM30, QC Sample EW10-SC18-0-2

hexachlorocyclopentadiene - rejected (R-8)

benzoic acid and aniline – low bias (UJ-8)

SDG QM57, QC Sample EW10-SC26-2.7-4

hexachlorocyclopentadiene – low bias (UJ-8)

SDG QM80, QC Sample EW10-SC50-0-1.6

hexachlorocyclopentadiene - rejected (R-8)

chrysene and benzo(g,h,i)perylene – low bias (J-8)

SDG QN06, QC Sample EW10-SC31-0.7-2.7

benzyl alcohol, 4-chloroanaline, 4-chloro-3-methylphenol, 3-nitroanaline, aniline, 4-nitroanaline, pentachlorophenol, hexachlorocyclopentadiene, 3,3'-dichlorobenzidine, and 4-nitrophenol - rejected (R-8)

2,4-dimethylphenol, di-n-octyl phthalate, 2,4,6-trichlorophenol, indeno(1,2,3-c,d)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene – low bias (J/UJ-8)

SDG QN38, QC Sample EW10-SC42-0-2

benzyl alcohol and pentachlorophenol - rejected (R-8)

benzoic acid and hexachlorocyclopentadiene – low bias (UJ-8)

Internal Standards

SDG QM30: The recovery for the internal standard perylene-d12 was less than the 50% lower control limit in Sample EW10-SC58-0-1.8. The sample was re-analyzed at dilution. The six compounds associated with this internal standard were reported from the dilution.

SDG QM80: The recoveries for the internal standard perylene-d12 were less than the 50% lower control limit in Samples EW10-SC52-0-2 and EW10-SC54-2-4. The samples were re-analyzed at dilution. The six compounds associated with this internal standard were reported from the dilutions.

Field Duplicates

The following acceptance criteria were used to evaluate precision: the relative percent difference (RPD) value control limit is 50% for results greater than five times the reporting limit (RL). For results less than five times the RL, the difference between the sample and duplicate must be less than two times the RL.

Field duplicate samples and any outliers are noted below. Although no data were qualified based on field duplicate precision outliers, users of the data should consider the impact of field precision outliers on the reported results.

SDG QL86:

EW10-SC19-0-2.5 and EW10-SC201-0-2.5: benzo(a)anthracene, benzo(a)pyrene, chrysene, fluoranthene, phenanthrene, and pyrene

EW10-SC19-2.5-4 and EW10-SC201-2.5-4: all criteria met

EW10-SC37-0-2 and EW10-SC202-0-2: all criteria met

EW10-SC37-2-3.9 and EW10-SC202-2-3.9: all criteria met

SDG QM57:

EW10-SC30-0-2 and EW10-SC203-0-2: all criteria met

EW10-SC30-2-4.3 and EW10-SC203-2-4.3: all criteria met

EW10-SC32-0-2 and EW10-SC204-0-2: benzo(a)anthracene, anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and phenanthrene

EW10-SC32-2-4 and EW10-SC204-2-4: all criteria met

Reporting Limits

SDG QL56: Samples EW10-SC04-2-4 and EW10-SC08-2-4 were analyzed at dilution (3x) due to results exceeding the linear calibration range. Reporting limits were elevated accordingly.

SDG QL86: Samples EW10-SC19-0-2.5 and EW10-SC21-2-4 were analyzed at dilution (3x) due to internal standard outliers. Reporting limits were elevated accordingly.

SDG QM30: Samples EW10-SC57-0-2, EW10-SC58-0-1.8, and EW10-SC58-1.8-4 were analyzed at dilution (3x) due to results exceeding the linear calibration range and internal standard outliers. Reporting limits were elevated accordingly.

In the SDGs listed below, several samples were analyzed at dilutions due to results exceeding the calibrated range, saturation of the detector, or poor peak separation. Reporting limits were elevated accordingly.

Sample ID	Initial or Reanalysis	Dilution Factor
SDG QM57		
EW10-SC23-1.3-3.2	Initial	3
EW10-SC23-1.3-3.2	Reanalysis	10
EW10-SC27-0-2	Reanalysis	3
EW10-SC27-2-4	Initial	3
EW10-SC27-2-4	Reanalysis	10
EW10-SC32-0-2	Reanalysis	3
EW10-SC32-2-4	Initial	3
EW10-SC32-2-4	Reanalysis	10
EW10-SC204-2-4	Reanalysis	3
EW10-SC29-0-2	Initial	3
EW10-SC29-2-3.9	Initial	3
EW10-SC29-2-3.9	Reanalysis	15

Sample ID	Initial or Reanalysis	Dilution Factor
SDG QM57		
SDG QM80		
EW10-SC33-2-3.5	Reanalysis	10
EW10-SC52-0-2	Reanalysis	3
EW10-SC54-0-2	Initial	3
EW10-SC54-0-2	Reanalysis	10
EW10-SC54-2-4	Initial	3
EW10-SC54-2-4	Reanalysis	10
SDG QN06		
EW10-SC25-2.8-4.8	Reanalysis	3
EW10-SC31-0.7-2.7	Reanalysis	3
EW10-SC31-2.7-5.3	Reanalysis	3
EW10-SC28-1-3	Reanalysis	3
EW10-SC28-3-5	Reanalysis	3
EW10-SC14-0-2.8	Reanalysis	3
EW10-SC17-0-2	Reanalysis	3
EW10-SC09-0-2	Reanalysis	3
EW10-SC09-2-4	Reanalysis	3

SDG QN38: Sample EW10-SC49-0-1.6 was analyzed at dilution (3x) due to results exceeding the linear calibration range. Reporting limits were elevated accordingly.

Reported Results

Reported concentrations for some compounds were greater than the calibrated linear range of the instrument; the laboratory flagged these results with an "E". Samples were diluted and re-analyzed; both sets of data were reported and reviewed. In order to report the best result for each compound, the results for the compounds that were "E" flagged in the original analyses were rejected (R-20) and should be reported from the diluted analyses. For the results that were not "E" flagged, the results in the diluted analyses were rejected (R-11) and the original results should be reported. The following samples were diluted for high concentrations of target analytes:

Sample ID	Analytes
SDG QL56	
EW10-SC04-2-4	phenanthrene, fluoranthene
EW10-SC08-2-4	bis (2-ethylhexyl) phthalate
SDG QM30	
EW10-SC57-0-2	pyrene
EW10-SC58-0-1.8	pyrene
EW10-SC58-1.8-4	phenanthrene, fluoranthene, pyrene
SDG QM57	
EW10-SC23-1.3-3.2	pyrene
EW10-SC27-0-2	bis(2-ethylhexyl)phthalate
EW10-SC27-2-4	fluoranthene and phenanthrene

Sample ID	Analytes
EW10-SC32-0-2	phenanthrene, fluoranthene, bis(2-ethylhexyl)phthalate
EW10-SC204-2-4	phenanthrene, fluoranthene, pyrene
EW10-SC29-2-3.9	naphthalene, 2-methylnaphthalene, acenaphthalene, dibenzofuran, fluorene, phenanthrene, fluoranthene, pyrene, 1-methylnaphthalene
EW10-SC29-2-4	Analyzed at dilution. All results from the initial analysis should be used; all results from dilution are rejected (R-11)
SDG QM80	
EW10-SC33-2-3.5	fluoranthene, pyrene
EW10-SC52-0-2	pyrene, R-11 benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene
EW10-SC54-0-2	phenanthrene, fluoranthene, pyrene
EW10-SC52-0-2	benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene
SDG QN06	
EW10-SC09-0-2	chrysene, fluoranthene, pyrene
EW10-SC09-2-4	chrysene, fluoranthene, pyrene, benzo(a)pyrene, benzo(a)anthracene

In addition to the dilutions required due to high levels of target analytes, several samples were reanalyzed at dilution due to poor spectral match for one surrogate analyte. After review of the chromatograms, the initial results were chosen in favor of the reanalysis results.

Sample	Analytes
EW10-SC25-2.8-4.8	R-11 all analytes in favor of initial results
EW10-SC31-0.7-2.7	R-11 all analytes in favor of initial results
EW10-SC31-2.7-5.3	R-11 all analytes in favor of initial results
EW10-SC28-1-3	R-11 all analytes in favor of initial results
EW10-SC28-3-5	R-11 all analytes in favor of initial results
EW10-SC14-0-2.8	R-11 all analytes in favor of initial results
EW10-SC17-0-2	R-11 all analytes in favor of initial results

SDG QN38: In Sample EW10-SC49-0-1.6, bis (2-ethylhexyl) phthalate exceeded the linear calibration range, this result was rejected (R-20) in the initial analysis. The results for all other analytes in the dilution were rejected (R-11).

Compound Identification

At the retention times for benzo(b)fluoranthene and benzo(k)fluoranthene, a single peak was present. The laboratory used half of the peak area to calculate a concentration for benzo(b)fluoranthene, and the other half to calculate benzo(k)fluoranthene. Since it is not possible to determine whether only one or both analytes were present, the positive results for these analytes were tentatively identified

and estimated (NJ-14). If only a total benzofluoranthene value is used, then the total benzofluoranthene values are acceptable without qualification.

Calculation Verification

SDGs QL56 & QL86: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. With the exceptions noted above, accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD recoveries; and precision was acceptable, as demonstrated by the RPD values for the MS/MSD and field duplicate analyses.

Data were qualified as not-detected based on method blank contamination. Data were estimated based on CCAL %D, LCS %R, and MS/MSD %R outliers. Data were also qualified as estimates with tentative identification due to a co-elution of two isomers.

Data were rejected due to MS/MSD recoveries that were less than 10%. Data were also rejected in order to indicate which result should be used from multiple reported analyses.

Data that has been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway – Subsurface Sediment Coring
Semivolatile Compounds by EPA Method 8270D-SIM

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QL56	18 Sediment	Stage 4
QL86	20 Sediment	Stage 4
QL86	20 Sediment	Stage 2B
QM30	20 Sediment	Stage 2B
QM80	14 Sediment	Stage 2B
QN06	20 Sediment	Stage 2B
QN38	18 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	2	Matrix Spike/Matrix Spike Duplicate (MS/MSD)
	GC/MS Instrument Performance	2	Internal Standards
	Initial Calibration (ICAL)	1	Field Duplicates
2	Continuing Calibration (CCAL)		Target Analyte List
	Laboratory Blanks	2	Reporting Limits
1	Field Blanks	2	Reported Results
2	Surrogate Compounds		Compound Identification
2	Laboratory Control Samples (LCS)	1	Calculation Verification (full validation only)
1	Reference Material		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The validation guidance documents state that the cooler temperatures should be within an advisory temperature range of 0°C to 6°C. The laboratory received a sample cooler with a temperature outside the control limit, at 6.3°C. There was insufficient time for the samples and coolers to reach the desired temperature as the laboratory received the samples within six hours of collection. This temperature outlier did not impact data quality and no qualifiers were assigned.

Continuing Calibration

SDG QL56: The %D value for benzyl alcohol was outside the ±25% control limit, at -36%, and indicative of low bias in the CCAL from 3/9/10. Results for benzyl alcohol were previously rejected due to a laboratory control sample (LCS) outlier. The %D values for hexachlorobenzene were outside the ±25% control limit, at 33% and 34%, and indicative of high bias in the CCAL from 3/8/10 and 3/9/10. This analyte was not detected in the associated samples; no qualifiers were applied.

SDGs QM57 & QM80: The %D values for benzyl alcohol and pentachlorophenol were outside the ±25% control limit, at -26% and -37%, and indicative of low bias in the CCAL from 3/19/10. Results for benzyl alcohol were previously rejected due to a LCS outlier. Pentachlorophenol was estimated (UJ-5B) in the associated samples.

SDG QN06: The %D values for benzyl alcohol and pentachlorophenol were outside the ±25% control limit, at -30% and -37%, and indicative of low bias in the CCAL from 3/22/10. Results for benzyl alcohol were previously rejected due to LCS and MS/MSD outliers. The %D value for pentachlorophenol was outside the ±25% control limit, at -30%, and indicative of low bias in the CCAL from 3/25/10. Results for pentachlorophenol were estimated in the associated samples (UJ-5B).

SDG QN38: The %D value for pentachlorophenol was outside the ±25% control limit, at -30%, and indicative of low bias in the CCAL from 3/25/10. Results for pentachlorophenol were estimated in the associated samples (UJ-5B). The %D value for n-nitrosodimethylamine was outside the ±25% control limit, at -30%, and indicative of low bias in the CCAL from 3/26/10. Results for n-nitrosodimethylamine were estimated in the associated samples (UJ-5B).

Field Blanks

No field blanks were submitted.

Surrogate Compounds

SDG QM57: The percent recovery (%R) values for 2-fluorobiphenyl, 2-fluorophenol, d4-2-chlorophenol, and 2,4,6-tribromophenol were less than the lower control limit in Sample EW10-SC32-2-4. One outlier per acid or base/neutral fraction is allowed. No qualifiers were applied to the

base/neutral analytes. The acid compound results were estimated (J/UJ-13) to indicate a potential low bias.

SDG QM80: The %R values for 2-fluorophenol and 2,4,6-tribromophenol were less than the lower control limit in Sample EW10-SC13-1.6-4; the acid compound results were estimated (UJ-13) to indicate a potential low bias.

SDG QN06: The %R value for 2-fluorophenol in Sample EW10-SC28-3-5 was less than the lower control limit. The %R values for d14-p-terphenyl in Samples EW10-SC09-0-2, EW10-SC09-2-4, EW10-SC09-2-4 (dilution) and the %R value for d5-nitrobenzene in Sample EW10-SC28-3-5 (dilution) were greater than the upper control limit. One outlier per acid or base/neutral fraction is allowed. No qualifiers were applied for these single surrogate outliers.

SDG QN38: The %R values for 2,4,6-tribromophenol were less than the lower control limit in eight samples. One outlier per acid or base/neutral fraction is allowed. No qualifiers were applied for this single surrogate outlier.

Laboratory Control Samples

A laboratory control sample (LCS) was analyzed at the proper frequency of one per batch. The LCS recovery values were within the laboratory control limits, with the exceptions noted below. For LCS recoveries greater than the upper control limit, positive results in the associated samples were estimated (J-10) to indicate a potential high bias. For recoveries less than the lower control limit, associated results were estimated (J/UJ-10) to indicate a potential low bias. If the recoveries were less than 10%, detected results were estimated (J-10) and reporting limits were rejected (R-10). The following outliers resulted in qualification of data:

SDG QL56: benzyl alcohol - rejected (R-10); dibenz(a,h)anthracene, 1,2,4-trichlorobenzene, dimethylphthalate, and butylbenzylphthalate – high bias (J-10)

SDG QL86: benzyl alcohol and 2,4-dimethylphenol – low bias(J/UJ-10); dibenz(a,h)anthracene – high bias (J-10)

SDG QM30: benzyl alcohol - rejected (R-10)

SDG QM57: benzyl alcohol - rejected (R-10)

SDG QM80 benzyl alcohol - rejected (R-10)

SDG QN06 benzyl alcohol - rejected (R-10); dibenz(a,h)anthracene – high bias (J-10)

SDG QN38: benzyl alcohol - rejected (R-10)

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed at the required frequency. The MS/MSD recovery values were within the laboratory control limits, with the exceptions noted below. No action was taken if only one of the MS/MSD recoveries was outside of the control limits. For MS/MSD recoveries greater than the upper control limit, positive results in the parent sample only were estimated (J-8) to indicate a potential high bias. For recoveries less than the lower control limit, positive results and reporting limits in the parent sample were estimated (J/UJ-8) to indicate a potential low bias. If the recoveries were less than 10%, detected results were estimated (J-8) and reporting limits were rejected (R-8).

The MS/MSD RPD values were less than the control limit of 50%. The following outliers resulted in qualification of data:

SDG QM30, QC Sample EW10-SC18-0-2 - dibenz(a,h)anthracene – low bias (J-8)

SDG QM57, QC Sample EW10-SC26-2.7-4 - benzyl alcohol - rejected (R-8)

SDG QM80, QC Sample EW10-SC50-0-1.6 - benzyl alcohol - rejected (R-8)

SDG QN06, QC Sample EW10-SC31-0.7-2.7 - benzyl alcohol - rejected (R-8)

SDG QN38, QC Sample EW10-SC42-0-2 - butylbenzylphthalate – high bias (J-8)
dibenz(a,h)anthracene and dimethylphthalate – low bias (J/UJ-8)

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. Because SQ-1 values are reference values and are not certified, no action was taken based on the recovery value outliers.

Internal Standards

SDG QL56: The recoveries for the internal standard perylene-d12 were less than the 50% lower control limit in four samples. These samples were reanalyzed at dilution (3x) with acceptable internal standard recoveries. Results for the only associated analyte, dibenz(a,h)anthracene, were reported from the dilutions.

SDG QL86: The recoveries for the internal standard perylene-d12 were less than the 50% lower control limit in ten samples and the method blank. Six of these samples were reanalyzed at dilution (3x) with similar internal standard recoveries. The initial results for dibenz(a,h)anthracene should be used; results were estimated (J/UJ-19) in all ten samples. No qualifiers were applied for the QC sample.

SDG QM30: The recoveries for the internal standard perylene-d12 were less than the 50% lower control limit in seven samples. These samples were reanalyzed at dilution (3x) with acceptable

internal standard recoveries. The positive results for dibenz(a,h)anthracene were reported from the dilutions. In order to achieve the lowest possible reporting limits, this compound was reported from the initial analyses for samples EW10-SC59-0-4 and EW10-SC59-2-4; reporting limits were estimated (UJ-19).

SDG QM57: The recovery for the internal standard phenanthrene-d10 was greater than the 200% upper control limit in Sample EW10-SC29-2-3.9. The recoveries for chrysene-d12 were greater than the 200% upper control limit in Samples EW10-SC29-0-2 and EW10-SC204-2-4. The associated analytes were not detected in these samples; no qualifiers were necessary.

SDG QM80: The recovery for the internal standard perylene-d12 was less than the 50% lower control limit in Sample EW10-SC52-0-2. This sample was reanalyzed at dilution (3x) with acceptable internal standard recoveries. The result for dibenz(a,h)anthracene was reported from the dilution.

SDG QN06: The recoveries for the internal standard perylene-d12 were less than the 50% lower control limit in five samples. These samples were re-analyzed at dilution (3x) with acceptable internal standard recoveries. Positive results for dibenz(a,h)anthracene were reported from the dilutions for samples EW10-SC17-2-4, EW10-SC09-0-2, and EW10-SC09-2-4. In order to achieve the lowest possible reporting limits, this compound was reported from the initial analyses for samples EW10-SC34-0.2-2.4 and EW10-SC34-2.4-3.9; the results were estimated (J/UJ-19).

The recoveries for the internal standards 1,4-dichlorobenzene-d4 (high bias) and perylene-d12 (low bias) were outside control limits in Sample EW10-SC28-3-5. The sample was re-analyzed at dilution (3x) with acceptable recoveries for these internal standards, but the recovery for the internal standard chrysene-d12 was less than the lower control limit. The result for dibenz(a,h)anthracene were reported from the initial analysis and estimated (J-19). The result for 1,4-dichlorobenzene was reported from the dilution.

SDG QN38: The recoveries for the internal standard perylene-d12 were less than the 50% lower control limit in ten samples. These samples were re-analyzed at dilution (3x) with acceptable internal standard recoveries. In Sample EW10-SC42-0-2 the positive result for dibenz(a,h)anthracene was reported from the dilution. The dibenz(a,h)anthracene results for the other samples were reported from the initial analyses and were estimated (J/UJ-19).

Field Duplicates

The following acceptance criteria were used to evaluate precision: the relative percent difference (RPD) value control limit is 50% for results greater than five times the reporting limit (RL). For results less than five times the RL, the difference between the sample and duplicate must be less than two times the RL. No data were qualified based on field replicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results.

No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results. Field duplicate samples and any outliers are noted below:

SDG QL86:

EW10-SC19-0-2.5 and EW10-SC201-0-2.5: dimethylphthalate

EW10-SC19-2.5-4 and EW10-SC201-2.5-4: all criteria met

EW10-SC37-0-2 and EW10-SC202-0-2: all criteria met

EW10-SC37-2-3.9 and EW10-SC202-2-3.9: all criteria met

SDG QM57:

EW10-SC30-0-2 and EW10-SC203-0-2: all criteria met

EW10-SC30-2-4.3 and EW10-SC203-2-4.3: all criteria met

EW10-SC32-0-2 and EW10-SC204-0-2: all criteria met

EW10-SC32-2-4 and EW10-SC204-2-4: 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and 2-methylphenol

Reporting Limits

SDG QL56: In seven samples, results for n-nitrosodiphenylamine were flagged "Y" by the laboratory to indicate that the reported value is an elevated reporting limit. These "Y" flagged results were qualified as not-detected (U-22).

SDG QL86: In seven samples, results for n-nitrosodiphenylamine and n-nitroso-di-n-propylamine were flagged "Y" by the laboratory to indicate that the reported value is an elevated reporting limit. These "Y" flagged results were qualified as not-detected (U-22).

SDG QM30: In three samples, results for n-nitrosodiphenylamine and one result for pentachlorophenol were flagged "Y" by the laboratory to indicate that the reported value is an elevated reporting limit. These "Y" flagged results were qualified as not-detected (U-22).

SDG QM57: Nine samples were analyzed at dilution, (3x or 10x) reporting limits were elevated accordingly.

In four samples, results for n-nitrosodiphenylamine were flagged "Y" by the laboratory to indicate that the reported value is an elevated reporting limit. These "Y" flagged results were qualified as not-detected (U-22).

SDG QM80: Samples EW10-SC54-0-2 and EW10-SC54-2-4 were analyzed at dilution (3x), reporting limits were elevated accordingly.

The result for n-nitrosodiphenylamine in Sample EW10-SC33-2-3.5 was flagged "Y" by the laboratory to indicate that the reported value is an elevated reporting limit. This "Y" flagged result was qualified as not-detected (U-22).

SDG QN06: In ten samples results for n-nitrosodiphenylamine, n-nitroso-di-n-propylamine, 2-methylphenol, and/or 2,4-dimethylphenol were flagged "Y" by the laboratory to indicate that the

reported value is an elevated reporting limit. These "Y" flagged results were qualified as not-detected (U-22).

SDG QN38: The result for n-nitrosodiphenylamine in Sample EW10-SC42-2-4 was flagged "Y" by the laboratory to indicate that the reported value is an elevated reporting limit. This "Y" flagged result was qualified as not-detected (U-22).

Reported Results

SDG QL56: Four samples were reanalyzed at dilution (3x) due to internal standard outliers in the original analyses; both sets of data were reported. The results for dibenz(a,h)anthracene in the initial analyses were rejected (R-11) in favor of the dilutions; the results for all other compounds in the dilutions were rejected (R-11).

SDG QL86: Six samples were reanalyzed at dilution (3x) due to internal standard outliers in the original analyses. In order to achieve the lowest possible reporting limits, the results from the dilutions were rejected (R-11) in favor of the initial analyses.

SDG QM30: Seven samples were reanalyzed at dilution (3x) due to an internal standard outlier in the original analyses; both sets of data were reported. In five samples, the results for dibenz(a,h)anthracene in the initial analyses were rejected (R-11) in favor of the dilutions; the results for all other compounds in these dilutions were rejected (R-11). All results for the dilutions of samples EW10-SC59-0-4 and EW10-SC59-2-4 were rejected (R-11) in favor of the initial analyses.

SDG QM80: Sample EW10-SC52-0-2 was reanalyzed at dilution (3x) due to an internal standard outlier in the original analysis; both sets of data were reported. The result for dibenz(a,h)anthracene from the original analysis was rejected (R-11); the results for all other compounds in the dilution were rejected (R-11).

The laboratory "M" flagged butylbenzylphthalate in Sample EW10SC52-0-2, indicating poor spectral match. The initial result was rejected (R-11) in favor of the dilution.

SDG QN06: Five samples were reanalyzed at dilution (3x) due to internal standard outliers in the original analyses. In order to achieve the lowest possible reporting limits, the results from the dilutions were rejected (R-11) in favor of the initial results.

Sample EW10-SC28-3-5 was reanalyzed at dilution (3x) due to internal standard outliers in the original analyses. From the initial analysis 1,4-dichlorobenzene was rejected (R-11) in favor of the dilution result and from the dilution analysis all other analytes were rejected (R-11) in favor of the initial results.

SDG QN38: Several samples were reanalyzed at dilution (3x) due to internal standard outliers in the original analyses. In order to achieve the lowest possible reporting limits, the results from the dilutions were rejected (R-11) in favor of the initial results, with the exception of the initial result for dibenz(a,h)anthracene from Sample EW10-SC42-0-2, which was rejected (R-11) in favor of the dilution result.

Calculation Verification

SDGs QL56 & QL86: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. With the above noted exceptions, accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD recoveries; and precision was acceptable as demonstrated by the RPD values for the MS/MSD and field duplicate analyses.

Data were estimated based on surrogate, LCS, and MS/MSD recovery outliers and internal standard outliers. Data were also qualified as not detected to indicate elevated reporting limits due to matrix interferences.

Data were rejected due MS/MSD and LCS %R values that were less than 10%. Data were also rejected to indicate which result, from multiple reported analyses, should be used.

Data that has been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway – Subsurface Sediment Coring
PCB Aroclors by Method SW8082

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc., Tukwila, Washington. Please see the **Sample Index** for a complete list of samples reviewed.

SDG	Number of Samples	Validation Level
QL26	1 Rinsate Blank	Stage 2A
QL56	18 Sediment	Stage 4
QL86	20 Sediment	Stage 4
QM30	20 Sediment	Stage 2B
QM57	20 Sediment	Stage 2B
QM80	14 Sediment	Stage 2B
QN06	20 Sediment	Stage 2B
QN38	18 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	1	Reference Materials
	Initial Calibration (ICAL)	2	Field Duplicates
	Continuing Calibration (CCAL)		Target Analyte List
	Laboratory Blanks	2	Reporting Limits
1	Field Blanks		Reported Results
1	Surrogate Compounds	2	Compound Identification
	Laboratory Control Samples (LCS/LCSD)	1	Calculation Verification (full validation only)
2	Matrix Spike/Matrix Spike Duplicates (MS/MSD)		

[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received one cooler with a temperature outside of these limits, at 6.3°C. The samples were received within 6 hours of collection. This temperature outlier did not impact data quality; therefore no qualifiers were assigned.

Field Blanks

SDG QL26: One rinsate blank, EW10-SC-RB, was submitted. No target analytes were detected in this blank.

Surrogate Compounds

SDG QL56: The percent recovery (%R) value for tetrachlorometaxylene (TCMX) was greater than the upper control limit in Sample EW10-SC45-0-1. No qualifiers were applied for this single surrogate outlier.

SDG QL86: The %R values for TCMX were greater than the upper control limit in Samples EW10-SC19-2.5-4, EW10-SC20-0.4-2.4, EW10-SC46-0-2.3, and the matrix spike/matrix spike duplicate (MS/MSD) samples. The recoveries for decachlorobiphenyl (DCB) were acceptable; no qualifiers were applied for these single surrogate outliers.

SDG QM57: The %R values for DCB and/or TCMX were outside the control limits in Samples EW10-SC23-1.3-3.2, EW10-SC32-2-4, and EW10-SC29-0-2. No qualifiers were applied for these outliers as the samples were analyzed at dilutions (10x or 50x).

SDG QM80: The %R values for DCB were greater than the upper control limit in Samples EW10-SC48-2-4.7 and EW10-SC54-2-4. No qualifiers were applied for these single surrogate outliers.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries of Aroclor 1254 were acceptable.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples were analyzed at the proper frequency. Percent recovery (%R) values were within the laboratory control limits, with some exceptions. For recoveries less than the lower control limit, positive results and reporting limits are estimated (J/UJ-8) in the parent sample to indicate a potential low bias. For recoveries greater than the upper control limit, positive results in the parent sample are estimated (J-8) to indicate a potential high bias. If only one of the MS or MSD recovery values was outside of the control limits, no action was taken.

The MS/MSD relative percent difference (RPD) values were less than the control limit of 50%. The sample used for the MS/MSD analyses and outliers are noted below:

SDG QL26: Due to insufficient sample volume, MS/MSD analyses were not performed. Laboratory accuracy was evaluated using the surrogate and laboratory control sample recoveries. Precision could not be evaluated.

SDG QL86: QC Sample EW10-SC20-0.4-2.4: Aroclor 1016 – high bias (sample ND, no action)

QC Sample EW10-SC201-2.5-4: Aroclor 1016 – high bias (sample ND, no action); Aroclor 1260 (MSD only, no action)

SDG QM57: QC Sample EW10-SC26-2.7-4: Aroclor 1016 – high bias (sample ND, no action)

QC Sample EW10-SC23-0-1.3: Aroclor 1016 – high bias (sample ND, no action)

SDG QM80: QC Sample EW10-SC50-0-1.6: Aroclor 1016 – high bias (sample ND, no action); Aroclor 1260 – no bias, result in parent sample (J-8)

QC Sample EW10-SC13-1.6-4: Aroclor 1016 – high bias (sample ND, no action)

SDG QN06: QC Sample EW10-SC31-0.7-2.7: Aroclor 1016 – high bias (sample ND, no action); Aroclor 1260 – (MSD only, no action)

QC Sample EW10-SC25-0.8-2.8: Aroclor 1016 – high bias (sample ND, no action)

SDG QN38: QC Sample EW10-SC42-0-2: Aroclor 1016 – high bias (sample ND, no action)

QC Sample EW10-SC56-2-4: Aroclor 1016 – high bias (sample ND, no action)

Field Duplicates

The following acceptance criteria were used to evaluate field precision: the relative percent difference (RPD) control limit is 50% for results greater than five times the reporting limit (RL). For results less than five times the RL, the difference between the sample and duplicate must be less than two times the RL.

Field duplicate samples No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results. Field duplicate samples and any outliers are noted below:

SDG QL86:

EW10-SC19-0-2.5 and EW10-SC201-0-2.5: all criteria met

EW10-SC19-2.5-4 and EW10-SC201-2.5-4: Aroclors 1248, 1254, and 1260

EW10-SC37-0-2 and EW10-SC202-0-2: all criteria met

EW10-SC37-2-3.9 and EW10-SC202-2-3.9: all criteria met

SDG QM57:

EW10-SC30-0-2 and EW10-SC203-0-2: all criteria met

EW10-SC30-2-4.3 and EW10-SC203-2-4.3: all criteria met

EW10-SC32-0-2 and EW10-SC204-0-2: all criteria met

EW10-SC32-2-4 and EW10-SC204-2-4: all criteria met

Reporting Limits

The samples were analyzed at a 5x, 10x, 25x, or 50x dilution and the reporting limits were elevated accordingly.

Several chromatograms indicated non-target background interference. The reporting limits for these analytes were flagged "Y" by the laboratory. These "Y" flagged results were qualified as not-detected (U-22). Qualified results are listed below:

SDG QL56: Aroclor 1248: Samples EW10-SC03-0-2, EW10-SC06-2-4

SDG QM30: Aroclor 1232: Sample EW10-SC58-1.8-4

SDG QM57: Aroclor 1248: Samples EW10-SC32-2-4, EW10-SC204-2-4, EW10-SC29-0-2, EW10-SC32-2-3.9

SDG QN06: Aroclor 1248: Samples EW10-SC31-0.7-2.7, EW10-SC31-2.7-5.3, EW10-SC28-1-3, EW10-SC28-3-5

SDG QN38: Aroclor 1248: Sample EW10-SC36-0.9-3
Aroclor 1232: Sample EW10-SC49-1.6-4

Compound Identification

The results from the two analytical columns were compared for agreement. In cases where the RPD value between the two columns was greater than 40% the reported result was "P" flagged by the laboratory. The elevated RPD value may indicate the presence of an interferent resulting in a high bias. When the RPD value was greater than 40% but less than 60% the reported value was estimated (J-3). If the RPD value was greater than 60%, the result was qualified as a tentative identification (NJ-3). No qualifiers were assigned to samples in which no compounds were detected. The following confirmation outliers were noted:

SDG QL56: Aroclor 1254 (J-3): Samples EW10-SC03-0-2, EW10-SC06-2-4, EW10-SC35-2-4, and EW10-SC05-0-2

Aroclor 1242 (J-3): Sample EW10-SC04-0-2

Aroclor 1248 (NJ-3): Sample EW10-SC05-0-2

SDG QM30: Aroclor 1248 (J-3): Samples EW10-SC07B-0.0-2.3, EW10-SC12-0-2, and EW10-SC61-1-3

Aroclor 1248 (NJ-3): Samples EW10-SC10-0-2.4, EW10-SC10-2.4-4, EW10-SC15-2.3-4, and EW10-SC61-0-1

Aroclor 1254 (J-3): Samples EW10-SC58-0-1.8, EW10-SC60-0.8-3, and EW10-SC61-0-1

SDG QN38: Aroclor 1254 (J-3): Samples EW10-SC36-0.9-3 and EW10-SC47-2-3.6

Calculation Verification

SDGs QL56 & QL86: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. With the above noted exceptions, accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample (LCS), and MS/MSD percent recoveries; and precision was acceptable as demonstrated by the MS/MSD and field duplicate relative percent difference values.

Data were qualified for MS/MSD %R outliers, field duplicate RPD outliers, and poor agreement between the two analytical columns. Data were qualified as not detected to indicate that the laboratory "Y" flags represent elevated reporting limits due to matrix interferences.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Subsurface Sediment Coring
Organochlorine Pesticides by EPA Method 8081B

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QL26	1 Rinsate Blank	Stage 2A
QO05	8 Sediment	Stage 4
QO07	2 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables, with the exception noted below. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times
	Initial Calibration (ICAL)
	Continuing Calibration (CCAL)
	Laboratory Blanks
1	Field Blanks
1	Surrogate Compounds
1	Laboratory Control Samples (LCS)
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
1	Reference Materials
	Field Duplicates
	Target Analyte List
2	Reporting Limits
	Reported Results
2	Compound Identification
1	Calculation Verification (full validation only)

[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Preservation and Holding Times

The validation guidance documents state that the cooler temperatures should be within an advisory temperature range of 0°C to 6°C. The laboratory received a sample cooler with a temperature outside the control limit, at 6.3°C. There was insufficient time for the samples and cooler to achieve a lower temperature as the laboratory received the samples within six hours of collection. This temperature outlier did not impact data quality and no qualifiers were assigned.

Field Blanks

SDG QL26: One rinsate blank, EW10-SC-RB, was submitted. No target analytes were detected in this blank.

Surrogate Compounds

SDG QO05: The percent recovery (%R) values for decachlorobiphenyl were greater than the upper control limit in Samples EW10-SC11-0-2 and EW10-SC57-0-2. No qualifiers were applied as the recoveries for the other surrogate, tetrachlormetaxylene , were acceptable.

The %R value for decachlorobiphenyl in Sample EW10-SC54-2-4 was less than the lower control limit; this sample was analyzed at dilution (10x); therefore and no qualifiers were applied for this single outlier.

Laboratory Control Samples

SDG QL26: The laboratory control sample (LCS) was not spiked for pesticides due to a laboratory error. Accuracy was evaluated using the surrogate recoveries. Because the only associated sample was a rinsate blank, no action was taken.

Matrix Spike/Matrix Spike Duplicates

SDG QL26: Due to insufficient sample volume, matrix spike/matrix spike duplicates (MS/MSD) were not analyzed. Laboratory accuracy was evaluated using surrogate recoveries. Precision could not be assessed for this SDG.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. Because the SQ-1 values are reference values and are not certified, no action was taken based on the recovery value outliers.

Reporting Limits

Several samples were analyzed at a dilution; reporting limits were elevated accordingly.

Several chromatograms indicated non-target background interference. The reporting limits for these analytes were flagged "Y" by the laboratory. These "Y" flagged results were qualified as not-detected (U-22). Qualified results are listed below:

SDG QO05: Sample EW10-SC11-2-4: 4,4'-DDT, delta-BHC, gamma chlordane, heptachlor epoxide

Sample EW10-SC19-0-2.5: 4,4'-DDT

Sample EW10-SC54-0-2: 4,4'-DDT, gamma chlordane

SDG QO07: Sample EW10-SC39-0-2: 4,4'-DDT

Compound Identification

The results from the two analytical columns were compared for agreement. In cases where the RPD value between the two columns was greater than 40% the reported result was "P" flagged by the laboratory. The elevated RPD value may indicate the presence of an interferent resulting in a high bias. When the RPD value was greater than 40% but less than 60% the reported value was estimated (J). If the RPD value was greater than 60%, the result was qualified as a tentative identification (NJ). No qualifiers were assigned to samples in which no compounds were detected. The following confirmation outliers were noted:

SDG QO05: Sample EW10-SC11-2-4: 4,4'-DDE (J-3)

Sample EW10-SC54-2-4: 2,4'-DDE (J-3)

Calculation Verification

SDGs QO05: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. With the exceptions noted above, accuracy was acceptable, as demonstrated by the surrogate, MS/MSD and LCS recoveries; and precision was acceptable, as demonstrated by the relative percent difference values for the MS/MSD.

Data were qualified due to poor agreement between the two analytical columns. Data were also qualified as not detected to indicate that the laboratory "Y" flags represent elevated reporting limits due to matrix interferences.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway –Subsurface Sediment Coring
Organotins by Krone 1988 GCMS-SIM

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QL26	1 Rinsate Blank	Stage 2A
QM68	18 Sediment	Stage 4
QO05	10 Sediment	Stage 2B
QO07	14 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are summarized in the following table:

1	Sample Preservation and Holding Times
	GC/MS Instrument Performance Check
	Initial Calibration (ICAL)
	Continuing Calibration (CCAL)
	Method Blanks
1	Field Blanks
	Surrogate Compounds
	Laboratory Control Samples (LCS)
2	Reference Materials
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
	Field Duplicates
2	Internal Standards
	Reporting Limits
	Reported Results
	Compound Identification
1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The validation guidance documents state that the cooler temperatures should be within an advisory temperature range of 0°C to 6°C. The laboratory received a sample cooler with a temperature outside the control limit, at 6.3°C. There was insufficient time for the samples and cooler to achieve a lower temperature as the laboratory received the samples within six hours of collection. This temperature outlier did not impact data quality and no qualifiers were assigned.

Field Blanks

SDG QL26: One rinsate blank, EW10-SC-RB, was submitted. No target analytes were detected in this blank.

Reference Materials

The standard reference material PACS-2 was analyzed at the frequency of one per batch. The %R values were within the certified limits, with the exception noted below. For recoveries greater than the upper control limit, associated positive results were estimated (J-12) to indicate a potential high bias. No action was taken for non-detects. For results less than the lower control limit, the associated positive results and non-detects were estimated (J/U-12) to indicate a potential low bias.

SDG QM68: tributyl tin – high bias

SDG QO05: tributyl tin – high bias

SDG QO07: dibutyl tin - low bias

Matrix Spike/Matrix Spike Duplicates

SDG QL26: Due to insufficient sample volume, matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Laboratory accuracy was evaluated using the surrogate and laboratory control sample recoveries. Precision could not be evaluated.

SDG QO07: The MS/MSD analyses were performed using Sample EW10-SC17-0-2. The MS %R value for tributyltin was greater than the upper control limit. The MSD recovery was acceptable therefore, no action was taken.

Internal Standards

SDG QO05: The recoveries for the internal standard p-terphenyl-d14 were greater than the 200% upper control limit in samples EW10-SC26-0-2.7, EW10-SC33-2-3.5, and EW10-SC50-0-1.6. These samples were reanalyzed at dilution (2x) with acceptable internal standard recoveries. Reporting limits were no affected by the high internal standard recoveries. Associated analytes that were not-detected in the initial analysis should be used; non-detected results from the dilution were rejected (R-11). Positive results from the initial analyses for compounds associated with the internal

standard outlier should be reported from the dilution; positive results from the initial analyses were rejected (R-11).

SDG QO07: The recoveries for the internal standard p-terphenyl-d14 were greater than the 200% upper control limit in samples EW10-SC17-0-2, EW10-SC36-0.9-3, EW10-SC40-0-1, EW10-SC40-1-4, EW10-SC47-0-2, and EW10-SC47-2-3.6. These samples were reanalyzed at dilution (2x) with acceptable internal standard recoveries. Reporting limits were no affected by the high internal standard recoveries. Associated analytes that were not-detected in the initial analysis should be used; non-detected results from the dilution were rejected (R-11). Positive results from the initial analyses for compounds associated with the internal standard outlier should be reported from the dilution; positive results from the initial analyses were rejected (R-11).

Both internal standard recoveries were greater than the 200% upper control limit in Sample EW10-SC17-2-4. This sample was reanalyzed at dilution (2x) with acceptable internal standard recoveries. The positive result for tributyl tin should be taken from the dilution and rejected (R-11) in the initial analysis. Butyl tin and dibutyl tin were not detected in the initial analyses; values for these analytes should be rejected (R-11) in the dilutions.

Calculation Verification

SDG QM68: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the surrogate, MS/MSD and laboratory control sample. Precision was also acceptable as demonstrated by the RPD values for the MS/MSD.

Data were qualified based on reference material and internal standard outliers.

Data were rejected to indicate which result, from multiple reported analyses, should be used. A usable result remains for all analytes in all samples; therefore completeness was not affected.

Data that has been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway – Subsurface Sediment Coring
Metals Analyses by EPA 200.8 and 6010B, Mercury by 7471A

This report documents the review of analytical data from the analysis of sediment samples, the associated laboratory and field quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
QL26	1 Rinsate Blank	Stage 2A
QL56	18 Sediment	Stage 4
QL86	20 Sediment	Stage 4
QM30	20 Sediment	Stage 2B
QM57	20 Sediment	Stage 2B
QM80	14 Sediment	Stage 2B
QN06	20 Sediment	Stage 2B
QN38	18 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements for review are listed below.

1	Sample Preservation and Holding Times	1	Standard Reference Materials
	Initial Calibrations (ICAL)	2	Matrix Spike (MS)
	ICP-MS Tunes	2	Laboratory Duplicates
	Initial and Continuing Calibration Verification (ICV/CCV)	1	Field Duplicates
	Contract Required Detection Limit Standards		ICP Interference Check Samples
	Laboratory Blanks		ICP-MS Internal Standards
1	Field Blanks		Reported Results
	Laboratory Control Samples	1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received one cooler with a temperature outside of these limits, at 6.3°C. The samples were received within 6 hours of collection. This temperature outlier did not impact data quality; therefore no qualifiers were assigned.

Field Blanks

SDG QL26: One rinsate blank, EW10-SC-RB, was submitted. No target analytes were detected in this blank.

Standard Reference Materials

The reference material ERA D053540 was analyzed. All results were within the manufacturer's performance acceptance limits.

Matrix Spikes

Matrix spike samples (MS) were analyzed at the proper frequency. The percent recovery (%R) values were within the control limits of 75-125%, with the exceptions noted below. For %R values greater than the upper control limit, the associated positive results were estimated (J-8) to indicate a possible high bias. No action was taken for non-detects. For %R values less than the lower control limit, the associated positive results and non-detects were qualified as estimated (J/UJ-8) to indicate a possible low bias. The post digestion spike was also evaluated. If the post spike recovery was within 75%-125%, then associated results were estimated (J/UJ-8). The samples used for the MS analyses and the recovery outliers that resulted in qualification of data are listed below:

SDG QL56: QC Sample EW10-SC04-2-4: antimony – (UJ-8) low bias, post spike acceptable

SDG QL86: QC Sample EW10-SC20-0.4-2-4: antimony – (UJ-8) low bias, post spike acceptable

SDG QM30: QC Sample EW10-SC18-0-2: antimony – (UJ-8) low bias, post spike acceptable

SDG QM57: QC Sample EW10-SC26-2.7-4: antimony – (UJ-8) low bias, post spike acceptable

SDG QM80: QC Sample EW10-SC50-0-1.6: antimony – (J/UJ-8) low bias, post spike acceptable; copper and lead – (J-8) high bias, post spikes acceptable

SDG QN06: QC Sample EW10-SC31-0.7-2.7: antimony – (J/UJ-8) low bias, post spike acceptable; mercury – (J/UJ-8) low bias

SDG QN38: QC Sample EW10-SC42-0-2: antimony – (UJ-8) low bias, post spike acceptable; copper and zinc– (J-8) low bias, post spikes acceptable

Laboratory Duplicates

Laboratory duplicates were analyzed at the proper frequency. For results greater than 5x the reporting limit (RL), the relative percent difference (RPD) values were less than the QAPP specified control limit of 30%, with the following exceptions. For results less than 5x the RL, the difference between the sample and duplicate was less than 2x the RL.

SDG QM80: QC Sample EW10-SC50-0-1.6: arsenic (36.6%) – (J-9); copper (36.5%) – (J-9); lead (33.1%) – (J-9); mercury (59.0%) – (J/UJ-9).

Field Duplicates

The following acceptance criteria were used to evaluate field precision: the RPD control limit is 30% for results greater than five times the RL. For results less than five times the RL, the difference between the sample and duplicate must be less than 2x the RL. Field duplicates are as follows:

SDG QL86:

EW10-SC19-0-2.5 and EW10-SC201-0-2.5: all criteria met

EW10-SC19-2.5-4 and EW10-SC201-2.5-4: all criteria met

EW10-SC37-0-2 and EW10-SC202-0-2: all criteria met

EW10-SC37-2-3.9 and EW10-SC202-2-3.9: all criteria met

SDG QM57:

EW10-SC30-0-2 and EW10-SC203-0-2: all criteria met

EW10-SC30-2-4.3 and EW10-SC203-2-4.3: all criteria met

EW10-SC32-0-2 and EW10-SC204-0-2: all criteria met

EW10-SC32-2-4 and EW10-SC204-2-4: all criteria met

Calculation Verification

SDGs QL56 & QL86: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the laboratory control sample, standard reference material, and matrix spike percent recovery values, except as noted above. The laboratory and field duplicate RPD values indicated acceptable precision, except as previously noted.

Data were qualified based on MS %R and laboratory duplicate RPD outliers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway – Subsurface Sediment Coring
Conventional Analyses

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **SAMPLE INDEX** for a list of the individual samples.

SDG	Number of Samples	Validation Level
QL56	20 Sediment	Stage 3
QL86	18 Sediment	Stage 3
QM30	20 Sediment	Stage 2A/2B
QM57	24 Sediment	Stage 2A/2B
QM80	14 Sediment	Stage 2A/2B
QN06	20 Sediment	Stage 2A/2B
QN38	18 Sediment	Stage 2A/2B

The analytical tests that were performed are summarized below:

Parameter	Method
Total Solids	EPA 160.3
Total Organic Carbon (TOC)	Plumb, 1981
Grainsize	PSEP

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all necessary deliverables for a summary validation. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times		Matrix Spike (MS)
	Initial Calibration		Laboratory Replicates
	Calibration Verification	1	Field Duplicates
	Laboratory Blanks		Reporting Limits
1	Field Blanks		Reported Results
	Laboratory Control Samples	1	Calculation Verification (full validation only)
1	Standard Reference Materials		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received one cooler with a temperature outside of these limits, at 6.3°C. The samples were received within 6 hours of collection. This temperature outlier did not impact data quality; therefore no qualifiers were assigned.

Field Blanks

No field blanks were submitted.

Standard Reference Materials

The standard reference material NIST 8704 was analyzed for TOC. All recoveries were within the control limits.

Field Duplicates

The following acceptance criteria were used to evaluate field precision: the RPD control limit is 30% for results greater than five times the RL (20% for total solids). For results less than five times the RL, the difference between the sample and duplicate must be less than 2x the RL. Field duplicates are as follows:

No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results. Field duplicate samples and any outliers are noted below:

SDG QL86:

EW10-SC19-0-2.5 and EW10-SC201-0-2.5: all criteria met
EW10-SC19-2.5-4 and EW10-SC201-2.5-4: all criteria met
EW10-SC37-0-2 and EW10-SC202-0-2: TOC (47.0%)
EW10-SC37-2-3.9 and EW10-SC202-2-3.9: all criteria met

SDG QM57:

EW10-SC30-0-2 and EW10-SC203-0-2: all criteria met
EW10-SC30-2-4.3 and EW10-SC203-2-4.3: all criteria met
EW10-SC32-0-2 and EW10-SC204-0-2: gravel (181%)
EW10-SC32-2-4 and EW10-SC204-2-4: coarse silt (56.6%)

Calculation Verification

SDGs QL56 & QL86: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the laboratory control sample, standard reference material, and matrix spike percent recovery values. Precision was also acceptable as demonstrated by the laboratory replicate percent relative standard deviation (%RSD) values and the field duplicate RPD values.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
East Waterway – Sub-surface Sediment Coring
Geotech Analyses

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **SAMPLE INDEX** for a list of the individual samples.

SDG	Number of Samples	Validation Level
QL24	5 Sediment	Stage 2A
QL84	4 Sediment	Stage 2A
QM44	7 Sediment	Stage 3
QM75	4 Sediment	Stage 2A
QN43	11 Sediment	Stage 2A

The analytical tests that were performed are summarized below:

Parameter	Method
Atterberg Limits	ASTM D 4318
Bulk Density	ASTM D 2937
Specific Gravity	ASTM D 854
Moisture Content	ASTM D 2216

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all necessary deliverables for a summary validation. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed below.

1 Sample Preservation and Holding Times
1 Laboratory Replicates
1 Field Duplicates
Reported Results
1 Calculation Verification (full validation only)

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[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

There were no specified holding times or preservation requirements in the QAPP. One sample cooler arrived outside of the advisory temperature range of 0°C to 6°C, at -0.4°C. This temperature did not impact data quality; therefore no qualifiers were assigned.

Laboratory Replicates

No laboratory replicates were analyzed for these methods. Laboratory precision could not be evaluated.

Field Duplicates

No samples identified as field duplicates were submitted.

Calculation Verification

SDG QM44: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical methods. There are no measurements for accuracy for these methods. Precision could not be assessed.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives

EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	Water: J(+)/UJ(-) if ext. > 7 and < 21 days J(+)/R(-) if ext > 21 days (EcoChem PJ) Solids/Wastes: J(+)/UJ(-) if ext. > 14 and < 42 days J(+)/R(-) if ext. > 42 days (EcoChem PJ) J(+)/UJ(-) if analysis >40 days	1
Tuning	DFTPP Beginning of each 12 hour period Method acceptance criteria	R(+/-) all analytes in all samples associated with the tune	5A
Initial Calibration (Minimum 5 stds.)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5A
	%RSD < 30%	(EcoChem PJ, see TM-06) J(+) if %RSD > 30%	5A
Continuing Calibration (Prior to each 12 hr. shift)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5B
	%D <25%	(EcoChem PJ, see TM-06) If > +/-90%: J+/R- If -90% to -26%: J+ (high bias) If 26% to 90%: J+/UJ- (low bias)	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample (+) result is less than CRQL and less than appropriate 5X or 10X rule (raise sample value to CRQL)	7
		U(+) if sample (+) result is greater than or equal to CRQL and less than appropriate 5X and 10X rule (at reported sample value)	7
	No TICs present	R(+) TICs using 10X rule	7
Field Blanks (Not Required)	No results > CRQL	Apply 5X/10X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One per matrix per batch Use method acceptance criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One per matrix per batch Use method acceptance criteria	J(+) in parent sample if RPD > CL	9
LCS low conc. H2O SVOA	One per lab batch Within method control limits	J(+) assoc. cmpd if > UCL J(+)/R(-) assoc. cmpd if < LCL J(+)/R(-) all cmpds if half are < LCL	10
LCS regular SVOA (H2O & solid)	One per lab batch Lab or method control limits	J(+) if %R > UCL J(+)/UJ(-) if %R <LCL J(+)/R(-) if %R < 10% (EcoChem PJ)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	Minimum of 3 acid and 3 base/neutral compounds Use method acceptance criteria	Do not qualify if only 1 acid and/or 1 B/N surrogate is out unless <10% J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) if %R < 10%	13
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	J(+) if > 200% J(+)/UJ(-) if < 50% J(+)/R(-) if < 25% RT>30 seconds, narrate and Notify PM	19
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NJ the TIC unless: R(+) common laboratory contaminants See Technical Director for ID issues	4
Quantitation/ Identification	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	See Technical Director if outliers	14 21 (false +)

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EcoChem Validation Guidelines for Pesticides, PCBs, Herbicides, and Phenol by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Methods 8081/8082/8041/8151)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (EcoChem PJ)	1
Resolution Check	Beginning of ICAL Sequence Within RTW Resolution >90%	Narrate (Use Professional Judgement to qualify)	14
Instrument Performance (Breakdown)	DDT Breakdown: < 20% Endrin Breakdown: <20% Combined Breakdown: <30% Compounds within RTW	J(+) DDT NJ(+) DDD and/or DDE R(-) DDT - If (+) for either DDE or DDD J(+) Endrin NJ(+) EK and/or EA R(-) Endrin - If (+) for either EK or EA	5A
Retention Times	Surrogates: TCX (+/- 0.05); DCB (+/- 0.10) Target compounds: elute before heptachlor epoxide (+/- 0.05) elute after heptachlor epoxide (+/- 0.07)	NJ(+)/R(-) results for analytes with RT shifts For full DV, use PJ based on examination of raw data	5B
Initial Calibration	Pesticides: Low=CRQL, Mid=4X, High=16X Multiresponse - one point Calibration %RSD<20% %RSD<30% for surr; two comp. may exceed if <30% Resolution in Mix A and Mix B >90%	J(+)/UJ(-)	5A
Continuing Calibration	Alternating PEM standard and INDA/INDB standards every 12 hours (each preceeded by an inst. Blank) %D < 25% Resolution >90% in IND mixes; 100% for PEM	J(+)/UJ(-) J(+)R(-) if %D > 90% PJ for resolution	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample result is < CRQL and < 5X rule (raise sample value to CRQL) U(+) if sample result is > or equal to CRQL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > 1/2 CRQL	Same as Method Blank	7
Field Blanks	Not addressed by NFG No results > CRQL	Apply 5X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Pesticides, PCBs, Herbicides, and Phenol by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Methods 8081/8082/8041/8151)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) in parent sample if RPD > CL	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	TCX and DCB added to every sample %R = 30-150%	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Quantitated using ICAL calibration factor (CF) RPD between columns <40%	J(+) if RPD = 40 - 60% NJ(+) if RPD >60% EcoChem PJ - See TM-08	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Sample Clean-up	GPC required for soil samples Florisil required for all samples Sulfur is optional Clean-up standard check %R within CLP limits	J(+)/UJ(-) if %R < LCL J(+) if %R > UCL	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate (Qualifiy if required by project QAPP)	9

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EcoChem Validation Guidelines for Metals Analysis by ICP
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration Tissues: Frozen	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	180 days from date sampled Frozen tissues - HT extended to 2 years	J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + minimum 1 standard If more than 1 standard, r > 0.995	J(+)/UJ(-) if r < 0.995 (multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±10% of true value	J(+)/UJ(-) if %R 75-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run %R within ±10% of true value	J(+)/UJ(-) if %R = 75-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B

Initial and Continuing Calibration Blank (ICB/CCB)	After each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		(Refer to TM-02 for additional information)
			7

Reporting Limit Standard	2x RL analyzed beginning of run Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Sb, Pb, Tl)	R(-)/J(+) < 2x RL if %R <50% (< 30% Sb, Pb, Tl) J(+) < 2x RL, UJ(-) if %R 50-69% (30-49% Sb, Pb,Tl) J(+) < 2x RL if %R 130-180% (150-200% Sb, Pb, Tl) R(+) < 2x RL if %R > 180% (200% Sb, Pb, Tl)	14
Interference Check Samples (ICSA/ICSAB)	ICSAB %R 80 - 120% for all spiked elements | ICSA | < MDL for all unspiked elements except: K, Na	For samples with Al, Ca, Fe, or Mg > ICS levels R(+/-) if %R < 50% J(+) if %R >120% J(+)/UJ(-) if %R= 50 to 79% Use Professional Judgment for ICSA to determine if bias is present see TM-09 for additional details	17
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7
Laboratory Control Sample (LCS)	One per matrix per batch		10
	Blank Spike: %R within 80-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	

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EcoChem Validation Guidelines for Metals Analysis by ICP
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Matrix Spikes	One per matrix per batch 75-125% for samples less than 4x spike level	J(+) if %R > 125% J(+)/UJ(-) if %R < 75% J(+)/R(-) if %R < 30% or J(+)/UJ(-) if Post Spike %R 75-125% Qualify all samples in batch	8
Post-digestion Spike	If Matrix Spike is outside 75-125%, spike at twice the sample conc.	No qualifiers assigned based on this element	
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples >RL and < 5x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL (2x RL for solids) qualify all samples in batch	9
Serial Dilution	5x dilution one per matrix %D < 10% for original sample conc. > 50x MDL	J(+)/UJ(-) if %D >10% qualify all samples in batch	16
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff < RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must fall within range	J values over range	20

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EcoChem Validation Guidelines for Metals Analysis by ICP-MS
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	180 days from date sampled Frozen tissues - HT extended to 2 years	J(+)/UJ(-) if holding time exceeded	1
Tune	Prior to ICAL monitoring compounds analyzed 5 times wih Std Dev. ≤ 5% mass calibration <0.1 amu from True Value Resolution < 0.9 AMU @ 10% peak height or <0.75 amu @ 5% peak height	Use Professional Judgment to evaluate tune J(+)/UJ(-) if tune criteria not met	5A
Initial Calibration	Blank + minimum 1 standard If more than 1 standard, r>0.995	J(+)/UJ(-) if r<0.995 (for multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±10% of true value	J(+)/UJ(-) if %R 75-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run ±10% of true value	J(+)/UJ(-) if %R = 75-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B

Initial and Continuing Calibration Blanks (ICB/CCB)	After each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Reporting Limit Standard (CRI)	2x RL analyzed beginning of run Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Co,Mn, Zn)	R(-),(+) < 2x RL if %R < 50% (< 30% Co,Mn, Zn) J(+) < 2x RL, UJ(-) if %R 50-69% (30%-49% Co,Mn, Zn) J(+) < 2x RL if %R 130%-180% (150%-200% Co,Mn, Zn) R(+) < 2x RL if %R > 180% (200% Co, Mn, Zn)	14
Interference Check Samples (ICSA/ICSAB)	Required by SW 6020, but not 200.8 ICSAB %R 80% - 120% for all spiked elements | ICSA | < IDL (MDL) for all unspiked elements	For samples with Al, Ca, Fe, or Mg > ICS levels R(+/-) if %R < 50% J(+) if %R >120% J(+)/UJ(-) if %R = 50% to 79% Use Professional Judgment for ICSA to determine if bias is present see TM-09 for additional details	17
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7

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EcoChem Validation Guidelines for Metals Analysis by ICP-MS
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Laboratory Control Sample (LCS)	One per matrix per batch Blank Spike: %R within 80%-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	
Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	One per matrix per batch 75-125% for samples where results do not exceed 4x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30% or J(+)/UJ(-) if Post Spike %R 75%-125% Qualify all samples in batch	8
Post-digestion Spike	If Matrix Spike is outside 75-125%, Spike parent sample at 2x the sample conc.	No qualifiers assigned based on this element	
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples > RL and < 5 x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9
Serial Dilution	5x dilution one per matrix %D < 10% for original sample values > 50x MDL	J(+)/UJ(-) if %D >10% All samples in batch	16
Internal Standards	Every sample SW6020: 60%-125% of cal blank IS 200.8: 30%-120% of cal blank IS	J (+)/UJ (-) all analytes associated with IS outlier	19
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < AL in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff < RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must fall within range	J values over range	20

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EcoChem Validation Guidelines for Mercury Analysis by CVAA
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	28 days from date sampled Frozen tissues: HT extended to 6 months	J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + 4 standards, one at RL r > 0.995	J(+)/UJ(-) if r<0.995	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±20% of true value	J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135% R(+/-) if %R < 65% R(+) if %R > 135%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run %R within ±20% of true value	J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135% R(+/-) if %R < 65% R(+) if %R > 135%	5B

Initial and Continuing Calibration Blanks (ICB/CCB)	after each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Reporting Limit Standard (CRA)	conc at RL - analyzed beginning of run %R = 70-130%	R(-),(+)<2xRL if %R <50% J(+)<2x RL, UJ(-) if %R 50-69% J(+) <2x RL if %R 130-180% R(+)<2x RL if %R>180%	14
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7
Laboratory Control Sample (LCS)	One per matrix per batch		10
	Blank Spike: %R within 80-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	
Matrix Spike/Matrix Spike Duplicate (MS/MSD)	One per matrix per batch 5% frequency 75-125% for samples less than 4x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30% all samples in batch	8
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples > RL and < 5x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Mercury Analysis by CVAA
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5x RL: Water: Diff<RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must be less than 110% of high standard	J values over range	20

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EcoChem Validation Guidelines for Conventional Chemistry Analysis (Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler Temperature 4°C ±2°C Preservation: Method Specific	Use Professional Judgment to qualify based to qualify for coole temp outliers J(+)/UJ(-) if preservation requirements not met	1
Holding Time	Method Specific	Professional Judgment J(+)/UJ(-) if holding time exceeded J(+)/R(-) if HT exceeded by > 3X	1
Initial Calibration	Method specific r>0.995	Use professional judgment J(+)/UJ(-) for r < 0.995	5A
Initial Calibration Verification (ICV)	Where applicable to method Independent source analyzed immediately after calibration %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5A
Continuing Cal Verification (CCV)	Where applicable to method Every ten samples, immed. following ICV/ICB and end of run %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5B

Initial and Continuing Cal Blanks (ICB/CCB)	Where applicable to method
	After each ICV and CCV every ten samples and end of run
	| blank| < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Method Blank	One per matrix per batch
	(not to exceed 20 samples)
	blank < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blk value, U(+) results < action level
		For (-) blk value, J(+)/UJ(-) results < action level
			7

Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Matrix Spike	One per matrix per batch; 5% frequency 75-125% for samples less than 4 x spike level	J(+) if %R > 125% or < 75% UJ(-) if %R = 30-74% R(+/-) results < IDL if %R < 30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff <RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Conventional Chemistry Analysis
(Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5X RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff<RL Solid: Diff < 2X RL	J(+)/UJ(-) in parent samples only	9

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EcoChem, INC.
Environmental Data Quality

APPENDIX B
QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL26	EW10-SC-RB	10-4583-QL26A	EPA 8270D	Pentachlorophenol		ug/l	U	UJ	10
QL26	EW10-SC-RB	10-4583-QL26A	EPA 8270D	Phenol		ug/l	U	UJ	10
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8082	Aroclor 1254	530	ug/kg	P	J	3
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D	Benzo(b)fluoranthene	270	ug/kg		NJ	14
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D	Benzo(k)fluoranthene	270	ug/kg		NJ	14
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D	bis(2-Ethylhexyl)phthalate	340	ug/kg	B	U	7
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D-SIM	Butylbenzylphthalate	22	ug/kg		J	10
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D-SIM	Dibenz(a,h)anthracene	56	ug/kg		J	10
QL56	EW10-SC03-0-2	10-4777-QL56A	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC03-2-4	10-4778-QL56B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC03-2-4	10-4778-QL56B	EPA 8270D	bis(2-Ethylhexyl)phthalate	170	ug/kg	B	U	7
QL56	EW10-SC03-2-4	10-4778-QL56B	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC03-2-4	10-4778-QL56B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8082	Aroclor 1242	430	ug/kg	P	J	3
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D	Benzo(b)fluoranthene	340	ug/kg		NJ	14
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D	Benzo(k)fluoranthene	340	ug/kg		NJ	14
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D	bis(2-Ethylhexyl)phthalate	510	ug/kg	B	U	7
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D-SIM	1,2,4-Trichlorobenzene	7.7	ug/kg		J	10
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D-SIM	Butylbenzylphthalate	39	ug/kg		J	10
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D-SIM	Dibenz(a,h)anthracene	44	ug/kg		J	10
QL56	EW10-SC04-0-2	10-4779-QL56C	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	1-Methylnaphthalene	230	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	2-Methylnaphthalene	280	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	4-Chloroaniline		ug/kg	U	UJ	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Acenaphthene	340	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Aniline		ug/kg	U	R	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Anthracene	610	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Benzo(a)anthracene	670	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Benzo(a)pyrene	670	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Benzo(b)fluoranthene	430	ug/kg		NJ	14
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Benzo(g,h,i)perylene	310	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Benzo(k)fluoranthene	430	ug/kg		NJ	14
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	bis(2-Ethylhexyl)phthalate	210	ug/kg	B	U	7
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Carbazole	220	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Chrysene	720	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Dibenzofuran	150	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Fluoranthene	1600	ug/kg	E	R	20
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Fluorene	460	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Indeno(1,2,3-cd)pyrene	290	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Naphthalene	340	ug/kg		J	8

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D	Phenanthrene	1800	ug/kg	E	R	20
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC04-2-4	10-4780-QL56D	EPA 8270D-SIM	Dibenz(a,h)anthracene	9.9	ug/kg		J	10
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	1-Methylnaphthalene	230	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2-Methylnaphthalene	270	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Acenaphthene	330	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Aniline		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Anthracene	630	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzo(a)anthracene	710	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzo(a)pyrene	690	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzo(b)fluoranthene	430	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzo(g,h,i)perylene	320	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzo(k)fluoranthene	430	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	190	ug/kg	B	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Carbazole	210	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Chrysene	760	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Dibenz(a,h)anthracene	140	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Dibenzofuran	120	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Fluoranthene	2000	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Fluorene	450	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	300	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Naphthalene	330	ug/kg		R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Phenanthrene	2300	ug/kg		J	8
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Phenol		ug/kg	U	R	11
QL56	EW10-SC04-2-4	10-4780-QL56DDL	EPA 8270D	Pyrene	1800	ug/kg		R	11
QL56	EW10-SC04-2-4LR	10-4780-QL56DLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8082	Aroclor 1248	41	ug/kg	P	NJ	3
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8082	Aroclor 1254	64	ug/kg	P	J	3
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8270D	Benzo(b)fluoranthene	130	ug/kg		NJ	14
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8270D	Benzo(k)fluoranthene	130	ug/kg		NJ	14
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8270D	bis(2-Ethylhexyl)phthalate	270	ug/kg	B	U	7
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC05-0-2	10-4781-QL56E	EPA 8270D-SIM	Dibenz(a,h)anthracene	20	ug/kg		J	10
QL56	EW10-SC05-2-4	10-4782-QL56F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC05-2-4	10-4782-QL56F	EPA 8270D	bis(2-Ethylhexyl)phthalate	230	ug/kg	B	U	7
QL56	EW10-SC05-2-4	10-4782-QL56F	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC05-2-4	10-4782-QL56F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D	Benzo(b)fluoranthene	360	ug/kg		NJ	14
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D	Benzo(k)fluoranthene	360	ug/kg		NJ	14
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D	bis(2-Ethylhexyl)phthalate	880	ug/kg	B	U	7
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D-SIM	1,2,4-Trichlorobenzene	15	ug/kg		J	10
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D-SIM	Butylbenzylphthalate	63	ug/kg		J	10
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D-SIM	Dibenz(a,h)anthracene	60	ug/kg		R	11
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D-SIM	Dimethylphthalate	16	ug/kg		J	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC06-0-2	10-4783-QL56G	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Butylbenzylphthalate	84	ug/kg		R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	58	ug/kg		J	10
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL56	EW10-SC06-0-2	10-4783-QL56GDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8082	Aroclor 1254	37	ug/kg	P	J	3
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8270D	Benzo(b)fluoranthene	300	ug/kg		NJ	14
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8270D	Benzo(k)fluoranthene	300	ug/kg		NJ	14
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8270D	bis(2-Ethylhexyl)phthalate	470	ug/kg	B	U	7
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC06-2-4	10-4784-QL56H	EPA 8270D-SIM	Dibenz(a,h)anthracene	61	ug/kg		R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	48	ug/kg		J	10
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL56	EW10-SC06-2-4	10-4784-QL56HDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D	Benzo(b)fluoranthene	340	ug/kg		NJ	14
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D	Benzo(k)fluoranthene	340	ug/kg		NJ	14
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D	bis(2-Ethylhexyl)phthalate	610	ug/kg	B	U	7
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D-SIM	Butylbenzylphthalate	55	ug/kg		J	10
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D-SIM	Dibenz(a,h)anthracene	57	ug/kg		J	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC08-0-2	10-4785-QL56I	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D	Benzo(b)fluoranthene	400	ug/kg		NJ	14
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D	Benzo(k)fluoranthene	400	ug/kg		NJ	14
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D	bis(2-Ethylhexyl)phthalate	3200	ug/kg	E	R	20
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D-SIM	Butylbenzylphthalate	66	ug/kg		J	10
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D-SIM	Dibenz(a,h)anthracene	45	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56J	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2-Methylnaphthalene	34	ug/kg	J	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Aniline		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Anthracene	230	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzo(a)anthracene	570	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzo(a)pyrene	460	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzo(b)fluoranthene	450	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzo(g,h,i)perylene	200	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzo(k)fluoranthene	450	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Chrysene	750	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Dibenzofuran	22	ug/kg	J	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Fluoranthene	1900	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Fluorene	54	ug/kg	J	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	180	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Naphthalene	34	ug/kg	J	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Phenanthrene	210	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Phenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D	Pyrene	1200	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Butylbenzylphthalate	60	ug/kg		R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	29	ug/kg		J	10
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	R	11
QL56	EW10-SC08-2-4	10-4786-QL56JDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D	Benzo(b)fluoranthene	240	ug/kg		NJ	14
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D	Benzo(k)fluoranthene	240	ug/kg		NJ	14
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D	bis(2-Ethylhexyl)phthalate	660	ug/kg	B	U	7

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D-SIM	Butylbenzylphthalate	58	ug/kg		J	10
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D-SIM	Dibenz(a,h)anthracene	42	ug/kg		J	10
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D-SIM	Dimethylphthalate	16	ug/kg		J	10
QL56	EW10-SC11-0-2	10-4787-QL56K	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D	Benzo(b)fluoranthene	260	ug/kg		NJ	14
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D	Benzo(k)fluoranthene	260	ug/kg		NJ	14
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D-SIM	Butylbenzylphthalate	62	ug/kg		J	10
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D-SIM	Dibenz(a,h)anthracene	44	ug/kg		R	11
QL56	EW10-SC11-2-4	10-4788-QL56L	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Butylbenzylphthalate	56	ug/kg		R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	32	ug/kg		J	10
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL56	EW10-SC11-2-4	10-4788-QL56LDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 8270D	Benzo(b)fluoranthene	150	ug/kg		NJ	14
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 8270D	Benzo(k)fluoranthene	150	ug/kg		NJ	14
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 8270D-SIM	Butylbenzylphthalate	28	ug/kg		J	10
QL56	EW10-SC35-0-2	10-4789-QL56M	EPA 8270D-SIM	Dibenz(a,h)anthracene	23	ug/kg		J	10
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 8082	Aroclor 1254	33	ug/kg	P	J	3
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 8270D	Benzo(b)fluoranthene	14	ug/kg	J	NJ	14
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 8270D	Benzo(k)fluoranthene	14	ug/kg	J	NJ	14
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 8270D	bis(2-Ethylhexyl)phthalate	270	ug/kg	B	U	7
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC35-2-4	10-4790-QL56N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC41-0-0.6	10-4791-QL56O	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC41-0-0.6	10-4791-QL56O	EPA 8270D	bis(2-Ethylhexyl)phthalate	200	ug/kg	B	U	7
QL56	EW10-SC41-0-0.6	10-4791-QL56O	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC41-0-0.6	10-4791-QL56O	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC41-0.6-2	10-4792-QL56P	EPA 6010B	Antimony		mg/kg	U	UJ	8

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL56	EW10-SC41-0.6-2	10-4792-QL56P	EPA 8270D	bis(2-Ethylhexyl)phthalate	200	ug/kg	B	U	7
QL56	EW10-SC41-0.6-2	10-4792-QL56P	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC41-0.6-2	10-4792-QL56P	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC45-0-1	10-4793-QL56Q	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC45-0-1	10-4793-QL56Q	EPA 8270D	bis(2-Ethylhexyl)phthalate	210	ug/kg	B	U	7
QL56	EW10-SC45-0-1	10-4793-QL56Q	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC45-0-1	10-4793-QL56Q	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL56	EW10-SC45-1-1.7	10-4794-QL56R	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL56	EW10-SC45-1-1.7	10-4794-QL56R	EPA 8270D	Benzo(b)fluoranthene	10	ug/kg	J	NJ	14
QL56	EW10-SC45-1-1.7	10-4794-QL56R	EPA 8270D	Benzo(k)fluoranthene	10	ug/kg	J	NJ	14
QL56	EW10-SC45-1-1.7	10-4794-QL56R	EPA 8270D	bis(2-Ethylhexyl)phthalate	240	ug/kg	B	U	7
QL56	EW10-SC45-1-1.7	10-4794-QL56R	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL56	EW10-SC45-1-1.7	10-4794-QL56R	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D	Benzo(b)fluoranthene	590	ug/kg		NJ	14
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D	Benzo(k)fluoranthene	590	ug/kg		NJ	14
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC19-0-2.5	10-4948-QL86A	EPA 8270D-SIM	Dibenz(a,h)anthracene	28	ug/kg		J	10,19
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	1,4-Dichlorobenzene	180	ug/kg		R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Butylbenzylphthalate	93	ug/kg		R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Dibenz(a,h)anthracene	37	ug/kg		R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL86	EW10-SC19-0-2.5	10-4948-QL86ADL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 8270D	Benzo(b)fluoranthene	15	ug/kg	J	NJ	14
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 8270D	Benzo(k)fluoranthene	15	ug/kg	J	NJ	14
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC19-2.5-4	10-4949-QL86B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	8
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	3-Nitroaniline		ug/kg	U	UJ	8

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	4-Chloroaniline		ug/kg	U	R	8
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	4-Nitroaniline		ug/kg	U	UJ	8
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	Aniline		ug/kg	U	R	8
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	Benzo(b)fluoranthene	62	ug/kg		NJ	14
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	Benzo(k)fluoranthene	62	ug/kg		NJ	14
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	8
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC20-0.4-2.4	10-4950-QL86C	EPA 8270D-SIM	Dibenz(a,h)anthracene	13	ug/kg		J	10
QL86	EW10-SC20-0.4-2.4LR	10-4950-QL86CLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC20-2.4-4.4	10-4951-QL86D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC20-2.4-4.4	10-4951-QL86D	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC20-2.4-4.4	10-4951-QL86D	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC20-2.4-4.4	10-4951-QL86D	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC20-2.4-4.4	10-4951-QL86D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D	Benzo(b)fluoranthene	510	ug/kg		NJ	14
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D	Benzo(k)fluoranthene	510	ug/kg		NJ	14
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D-SIM	Dibenz(a,h)anthracene	34	ug/kg		J	10,19
QL86	EW10-SC21-0-2	10-4952-QL86E	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	1,4-Dichlorobenzene	310	ug/kg		R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Butylbenzylphthalate	77	ug/kg		R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	38	ug/kg		R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL86	EW10-SC21-0-2	10-4952-QL86EDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D	Benzo(b)fluoranthene	580	ug/kg		NJ	14
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D	Benzo(k)fluoranthene	580	ug/kg		NJ	14
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D-SIM	Dibenz(a,h)anthracene	64	ug/kg		J	10,19
QL86	EW10-SC21-2-4	10-4953-QL86F	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	1,4-Dichlorobenzene	160	ug/kg		R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Butylbenzylphthalate	120	ug/kg		R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	56	ug/kg		R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL86	EW10-SC21-2-4	10-4953-QL86FDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D	Benzo(b)fluoranthene	75	ug/kg		NJ	14
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D	Benzo(k)fluoranthene	75	ug/kg		NJ	14
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC37-0-2	10-4954-QL86G	EPA 8270D-SIM	Dibenz(a,h)anthracene	6.5	ug/kg		J	10,19
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL86	EW10-SC37-0-2	10-4954-QL86GDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL86	EW10-SC37-2-3.9	10-4955-QL86H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC37-2-3.9	10-4955-QL86H	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC37-2-3.9	10-4955-QL86H	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC37-2-3.9	10-4955-QL86H	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC37-2-3.9	10-4955-QL86H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC38-0-0.8	10-4956-QL86I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC38-0-0.8	10-4956-QL86I	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC38-0-0.8	10-4956-QL86I	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL86	EW10-SC38-0-0.8	10-4956-QL86I	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC38-0-0.8	10-4956-QL86I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC38-0.8-2	10-4957-QL86J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC38-0.8-2	10-4957-QL86J	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC38-0.8-2	10-4957-QL86J	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC38-0.8-2	10-4957-QL86J	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC38-0.8-2	10-4957-QL86J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D	Benzo(b)fluoranthene	320	ug/kg		NJ	14
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D	Benzo(k)fluoranthene	320	ug/kg		NJ	14
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC43-0-1.3	10-4958-QL86K	EPA 8270D-SIM	Dibenz(a,h)anthracene	35	ug/kg		J	10,19
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	1,4-Dichlorobenzene	20	ug/kg		R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	33	ug/kg		R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL86	EW10-SC43-0-1.3	10-4958-QL86KDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D	Benzo(b)fluoranthene	240	ug/kg		NJ	14
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D	Benzo(k)fluoranthene	240	ug/kg		NJ	14
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D-SIM	Dibenz(a,h)anthracene	11	ug/kg		J	10,19
QL86	EW10-SC43-1.3-4	10-4959-QL86L	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QL86	EW10-SC43-1.3-4	10-4959-QL86LDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 8270D	Benzo(b)fluoranthene	25	ug/kg		NJ	14
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 8270D	Benzo(k)fluoranthene	25	ug/kg		NJ	14
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC46-0-2.3	10-4960-QL86M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC46-2.3-4	10-4961-QL86N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC46-2.3-4	10-4961-QL86N	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC46-2.3-4	10-4961-QL86N	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC46-2.3-4	10-4961-QL86N	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC46-2.3-4	10-4961-QL86N	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC46-2.3-4	10-4961-QL86N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D	Benzo(b)fluoranthene	95	ug/kg		NJ	14
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D	Benzo(k)fluoranthene	95	ug/kg		NJ	14
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC55-0-2	10-4962-QL86O	EPA 8270D-SIM	Dibenz(a,h)anthracene	11	ug/kg		J	10
QL86	EW10-SC55-2-4	10-4963-QL86P	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC55-2-4	10-4963-QL86P	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC55-2-4	10-4963-QL86P	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC55-2-4	10-4963-QL86P	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC55-2-4	10-4963-QL86P	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC55-2-4	10-4963-QL86P	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D	Benzo(b)fluoranthene	450	ug/kg		NJ	14
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D	Benzo(k)fluoranthene	450	ug/kg		NJ	14
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D-SIM	2,4-Dimethylphenol	6.1	ug/kg		J	10
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D-SIM	Dibenz(a,h)anthracene	44	ug/kg		J	10,19
QL86	EW10-SC201-0-2.5	10-4964-QL86Q	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D	Benzo(b)fluoranthene	29	ug/kg		NJ	14
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D	Benzo(k)fluoranthene	29	ug/kg		NJ	14

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC201-2.5-4	10-4965-QL86R	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D	Benzo(b)fluoranthene	98	ug/kg		NJ	14
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D	Benzo(k)fluoranthene	98	ug/kg		NJ	14
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC202-0-2	10-4966-QL86S	EPA 8270D-SIM	Dibenz(a,h)anthracene	6.5	ug/kg		J	10,19
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 6010B	Antimony		mg/kg	U	UJ	8
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	10
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	UJ	10
QL86	EW10-SC202-2-3.9	10-4967-QL86T	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	EPA 8082	Aroclor 1248	280	ug/kg	P	J	3
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	EPA 8270D	Benzo(b)fluoranthene	150	ug/kg		NJ	14
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	EPA 8270D	Benzo(k)fluoranthene	150	ug/kg		NJ	14
QM30	EW10-SC07B-0.0-2.3	10-5171-QM30A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC07B-2.3-4	10-5172-QM30B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC07B-2.3-4	10-5172-QM30B	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC07B-2.3-4	10-5172-QM30B	EPA 8270D	Benzo(b)fluoranthene	9.8	ug/kg	J	NJ	14
QM30	EW10-SC07B-2.3-4	10-5172-QM30B	EPA 8270D	Benzo(k)fluoranthene	9.8	ug/kg	J	NJ	14
QM30	EW10-SC07B-2.3-4	10-5172-QM30B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC10-0-2.4	10-5173-QM30C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC10-0-2.4	10-5173-QM30C	EPA 8082	Aroclor 1248	120	ug/kg	P	NJ	3
QM30	EW10-SC10-0-2.4	10-5173-QM30C	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC10-0-2.4	10-5173-QM30C	EPA 8270D	Benzo(b)fluoranthene	280	ug/kg		NJ	14
QM30	EW10-SC10-0-2.4	10-5173-QM30C	EPA 8270D	Benzo(k)fluoranthene	280	ug/kg		NJ	14
QM30	EW10-SC10-0-2.4	10-5173-QM30C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC10-2.4-4	10-5174-QM30D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC10-2.4-4	10-5174-QM30D	EPA 8082	Aroclor 1248	87	ug/kg	P	NJ	3
QM30	EW10-SC10-2.4-4	10-5174-QM30D	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC10-2.4-4	10-5174-QM30D	EPA 8270D	Benzo(b)fluoranthene	300	ug/kg		NJ	14
QM30	EW10-SC10-2.4-4	10-5174-QM30D	EPA 8270D	Benzo(k)fluoranthene	300	ug/kg		NJ	14
QM30	EW10-SC10-2.4-4	10-5174-QM30D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 8082	Aroclor 1248	1000	ug/kg	P	J	3
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 8270D	Benzo(b)fluoranthene	500	ug/kg		NJ	14

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 8270D	Benzo(k)fluoranthene	500	ug/kg		NJ	14
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC12-0-2	10-5175-QM30E	EPA 8270D-SIM	Dibenz(a,h)anthracene	37	ug/kg		R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	1,4-Dichlorobenzene	22	ug/kg		R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC12-0-2	10-5175-QM30EDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D	Benzo(b)fluoranthene	420	ug/kg		NJ	14
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D	Benzo(k)fluoranthene	420	ug/kg		NJ	14
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D-SIM	Dibenz(a,h)anthracene	51	ug/kg		R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM30	EW10-SC12-2-3.1	10-5176-QM30F	EPA 8270D-SIM	Pentachlorophenol		ug/kg	Y	U	22
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	Butylbenzylphthalate	47	ug/kg		R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	R	11
QM30	EW10-SC12-2-3.1	10-5176-QM30FDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC15-0-2.3	10-5177-QM30G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC15-0-2.3	10-5177-QM30G	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC15-0-2.3	10-5177-QM30G	EPA 8270D	Benzo(b)fluoranthene	440	ug/kg		NJ	14
QM30	EW10-SC15-0-2.3	10-5177-QM30G	EPA 8270D	Benzo(k)fluoranthene	440	ug/kg		NJ	14
QM30	EW10-SC15-0-2.3	10-5177-QM30G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC15-2.3-4	10-5178-QM30H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC15-2.3-4	10-5178-QM30H	EPA 8082	Aroclor 1248	7.2	ug/kg	P	NJ	3
QM30	EW10-SC15-2.3-4	10-5178-QM30H	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC15-2.3-4	10-5178-QM30H	EPA 8270D	Benzo(b)fluoranthene	14	ug/kg	J	NJ	14

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC15-2.3-4	10-5178-QM30H	EPA 8270D	Benzo(k)fluoranthene	14	ug/kg	J	NJ	14
QM30	EW10-SC15-2.3-4	10-5178-QM30H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D	Aniline		ug/kg	U	UJ	8
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D	Benzo(b)fluoranthene	620	ug/kg		NJ	14
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D	Benzo(k)fluoranthene	620	ug/kg		NJ	14
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	8
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	8
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC18-0-2	10-5179-QM30I	EPA 8270D-SIM	Dibenz(a,h)anthracene	46	ug/kg		J	8
QM30	EW10-SC18-0-2LR	10-5179-QM30ILR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC18-2-4	10-5180-QM30J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC18-2-4	10-5180-QM30J	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC18-2-4	10-5180-QM30J	EPA 8270D	Benzo(b)fluoranthene	650	ug/kg		NJ	14
QM30	EW10-SC18-2-4	10-5180-QM30J	EPA 8270D	Benzo(k)fluoranthene	650	ug/kg		NJ	14
QM30	EW10-SC18-2-4	10-5180-QM30J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8082	Aroclor 1254	780	ug/kg	P	J	3
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8270D	Benzo(b)fluoranthene	3900	ug/kg		NJ	14
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8270D	Benzo(k)fluoranthene	3900	ug/kg		NJ	14
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8270D	Pyrene	7200	ug/kg	ES	R	20
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC58-0-1.8	10-5181-QM30K	EPA 8270D-SIM	Dibenz(a,h)anthracene	170	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Acenaphthene	94	ug/kg	J	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Acenaphthylene	170	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Anthracene	970	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzo(a)anthracene	2700	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzo(a)pyrene	3500	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzo(b)fluoranthene	3600	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzo(g,h,i)perylene	490	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzo(k)fluoranthene	3600	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	960	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Carbazole	240	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Chrysene	3800	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Dibenz(a,h)anthracene	320	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Fluoranthene	1400	ug/kg	Q	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Fluorene	110	ug/kg	J	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	580	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Naphthalene	78	ug/kg	J	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Phenanthrene	760	ug/kg		R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC58-0-1.8	10-5181-QM30KDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8082	Aroclor 1232		ug/kg	Y	U	22
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D	Benzo(b)fluoranthene	610	ug/kg		NJ	14
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D	Benzo(k)fluoranthene	610	ug/kg		NJ	14
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D	Fluoranthene	6100	ug/kg	ES	R	20
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D	Phenanthrene	3600	ug/kg	E	R	20
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D	Pyrene	4000	ug/kg	ES	R	20
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D-SIM	Dibenz(a,h)anthracene	29	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30L	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Acenaphthene	910	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Anthracene	880	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzo(a)anthracene	1200	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzo(a)pyrene	400	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzo(b)fluoranthene	420	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzo(g,h,i)perylene	73	ug/kg	J	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzo(k)fluoranthene	420	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	bis(2-Ethylhexyl)phthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Chrysene	1100	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Dibenzofuran	460	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Fluoranthene	6400	ug/kg	Q	J	5B
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Fluorene	940	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	74	ug/kg	J	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Naphthalene	220	ug/kg		R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	R	11
QM30	EW10-SC58-1.8-4	10-5182-QM30LDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30M	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC59-0-2	10-5183-QM30M	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC59-0-2	10-5183-QM30M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC59-0-2	10-5183-QM30M	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC59-0-2	10-5183-QM30MDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC59-2-4	10-5184-QM30N	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC59-2-4	10-5184-QM30N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC59-2-4	10-5184-QM30N	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC59-2-4	10-5184-QM30NDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	UJ	5B
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D	Benzo(b)fluoranthene	1100	ug/kg		NJ	14
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D	Benzo(k)fluoranthene	1100	ug/kg		NJ	14
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D	Pyrene	2500	ug/kg	ES	R	20

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D-SIM	Dibenz(a,h)anthracene	40	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30O	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	1,4-Dichlorobenzene	45	ug/kg	J	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Acenaphthene	180	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Acenaphthylene	150	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Aniline		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Anthracene	350	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzo(a)anthracene	880	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzo(a)pyrene	1100	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzo(b)fluoranthene	850	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzo(g,h,i)perylene	190	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzo(k)fluoranthene	850	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	bis(2-Ethylhexyl)phthalate	120	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Carbazole	72	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Chrysene	1100	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Dibenz(a,h)anthracene	100	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Dibenzofuran	76	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Fluoranthene	1900	ug/kg	Q	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Fluorene	140	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Indeno(1,2,3-cd)pyrene	210	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Naphthalene	120	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Phenanthrene	1200	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D	Phenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	1,4-Dichlorobenzene	73	ug/kg		R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	R	11
QM30	EW10-SC57-0-2	10-5185-QM30ODL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM30	EW10-SC57-2-4	10-5186-QM30P	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC57-2-4	10-5186-QM30P	EPA 8270D	Fluoranthene		ug/kg	U	UJ	5B
QM30	EW10-SC57-2-4	10-5186-QM30P	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM30	EW10-SC57-2-4	10-5186-QM30P	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	UJ	5B
QM30	EW10-SC57-2-4	10-5186-QM30P	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 8270D	Benzo(b)fluoranthene	750	ug/kg		NJ	14
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 8270D	Benzo(k)fluoranthene	750	ug/kg		NJ	14
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 8270D	Fluoranthene	560	ug/kg	Q	J	5B
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	UJ	5B
QM30	EW10-SC60-0-0.8	10-5187-QM30Q	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8082	Aroclor 1254	13	ug/kg	P	J	3
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8270D	Benzo(b)fluoranthene	28	ug/kg		NJ	14
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8270D	Benzo(k)fluoranthene	28	ug/kg		NJ	14
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8270D	Fluoranthene	26	ug/kg	Q	J	5B
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	UJ	5B
QM30	EW10-SC60-0.8-3	10-5188-QM30R	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8082	Aroclor 1248	76	ug/kg	P	J	3
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8082	Aroclor 1254	110	ug/kg	P	NJ	3
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8270D	Benzo(b)fluoranthene	190	ug/kg		NJ	14
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8270D	Benzo(k)fluoranthene	190	ug/kg		NJ	14
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8270D	Fluoranthene	340	ug/kg	Q	J	5B
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	UJ	5B
QM30	EW10-SC61-0-1	10-5189-QM30S	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8082	Aroclor 1248	6.4	ug/kg	P	J	3
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8270D	Benzo(b)fluoranthene	33	ug/kg		NJ	14
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8270D	Benzo(k)fluoranthene	33	ug/kg		NJ	14
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8270D	Fluoranthene	98	ug/kg	Q	J	5B
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	UJ	5B
QM30	EW10-SC61-1-3	10-5190-QM30T	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 8270D	Benzo(b)fluoranthene	460	ug/kg		NJ	14
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 8270D	Benzo(k)fluoranthene	460	ug/kg		NJ	14
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC23-0-1.3	10-5375-QM57A	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D	Benzo(b)fluoranthene	4200	ug/kg		NJ	14
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D	Benzo(k)fluoranthene	4200	ug/kg		NJ	14
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D	Pyrene	20000	ug/kg	ES	R	20
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC23-1.3-3.2	10-5376-QM57B	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Acenaphthene	730	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Anthracene	2300	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzo(a)anthracene	3500	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzo(a)pyrene	3000	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzo(b)fluoranthene	3700	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzo(g,h,i)perylene	530	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzo(k)fluoranthene	3700	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	5000	ug/kg	B	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Carbazole	320	ug/kg	J	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Chrysene	4900	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Dibenz(a,h)anthracene	320	ug/kg	J	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Dibenzofuran	460	ug/kg	J	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Fluoranthene	12000	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Fluorene	930	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	610	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Naphthalene	290	ug/kg	J	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Phenanthrene	1900	ug/kg		R	11
QM57	EW10-SC23-1.3-3.2	10-5376-QM57BDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 8270D	Benzo(b)fluoranthene	110	ug/kg		NJ	14
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 8270D	Benzo(k)fluoranthene	110	ug/kg		NJ	14
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 8270D	bis(2-Ethylhexyl)phthalate	82	ug/kg	B	U	7
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC26-0-2.7	10-5377-QM57C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC26-2.7-4	10-5378-QM57D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC26-2.7-4	10-5378-QM57D	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC26-2.7-4	10-5378-QM57D	EPA 8270D	bis(2-Ethylhexyl)phthalate	37	ug/kg	B	U	7
QM57	EW10-SC26-2.7-4	10-5378-QM57D	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B,8
QM57	EW10-SC26-2.7-4	10-5378-QM57D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	8,10
QM57	EW10-SC26-2.7-4LR	10-5378-QM57DLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D	Benzo(b)fluoranthene	1000	ug/kg		NJ	14
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D	Benzo(k)fluoranthene	1000	ug/kg		NJ	14
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D	bis(2-Ethylhexyl)phthalate	4600	ug/kg	ES	R	20
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC27-0-2	10-5379-QM57E	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	1-Methylnaphthalene	56	ug/kg	J	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Acenaphthene	150	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Acenaphthylene	100	ug/kg	J	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Anthracene	480	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzo(a)anthracene	740	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzo(a)pyrene	1100	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzo(b)fluoranthene	1100	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzo(g,h,i)perylene	200	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzo(k)fluoranthene	1100	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Chrysene	1400	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Dibenz(a,h)anthracene	95	ug/kg	J	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Dibenzofuran	83	ug/kg	J	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Fluoranthene	2700	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Fluorene	240	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	200	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Naphthalene	75	ug/kg	J	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Phenanthrene	440	ug/kg		R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM57	EW10-SC27-0-2	10-5379-QM57EDL	EPA 8270D	Pyrene	2800	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D	Benzo(b)fluoranthene	1400	ug/kg		NJ	14
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D	Benzo(k)fluoranthene	1400	ug/kg		NJ	14
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D	Fluoranthene	12000	ug/kg	ES	R	20
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D	Phenanthrene	10000	ug/kg	E	R	20
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC27-2-4	10-5380-QM57F	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	1-Methylnaphthalene	1700	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2-Methylnaphthalene	280	ug/kg	J	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Acenaphthene	5700	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Anthracene	2800	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzo(a)anthracene	2200	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzo(a)pyrene	1200	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzo(b)fluoranthene	1300	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzo(g,h,i)perylene	240	ug/kg	J	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzo(k)fluoranthene	1300	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	2000	ug/kg	B	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Carbazole	120	ug/kg	J	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Chrysene	2600	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Dibenz(a,h)anthracene	120	ug/kg	J	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Dibenzofuran	3100	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Fluorene	5000	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	240	ug/kg	J	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Naphthalene	1600	ug/kg		R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM57	EW10-SC27-2-4	10-5380-QM57FDL	EPA 8270D	Pyrene	7800	ug/kg		R	11
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 8270D	Benzo(b)fluoranthene	400	ug/kg		NJ	14
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 8270D	Benzo(k)fluoranthene	400	ug/kg		NJ	14
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC30-0-2	10-5381-QM57G	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 8270D	Benzo(b)fluoranthene	430	ug/kg		NJ	14
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 8270D	Benzo(k)fluoranthene	430	ug/kg		NJ	14
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC30-2-4.3	10-5382-QM57H	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	Benzo(b)fluoranthene	560	ug/kg		NJ	14
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	Benzo(k)fluoranthene	560	ug/kg		NJ	14
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	bis(2-Ethylhexyl)phthalate	2100	ug/kg	BE	R	20
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	Fluoranthene	3100	ug/kg	ES	R	20
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D	Phenanthrene	3300	ug/kg	ES	R	20
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC32-0-2	10-5383-QM57I	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	1,4-Dichlorobenzene	56	ug/kg	J	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	1-Methylnaphthalene	940	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2-Methylnaphthalene	1100	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Acenaphthene	1400	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Anthracene	650	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzo(a)anthracene	780	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzo(a)pyrene	520	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzo(b)fluoranthene	590	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzo(g,h,i)perylene	120	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzo(k)fluoranthene	590	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Carbazole	98	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Chrysene	1000	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Dibenz(a,h)anthracene	55	ug/kg	J	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Dibenzofuran	900	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Fluorene	1500	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	110	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Naphthalene	1100	ug/kg		R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM57	EW10-SC32-0-2	10-5383-QM57IDL	EPA 8270D	Pyrene	2300	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D	Benzo(b)fluoranthene	980	ug/kg		NJ	14
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D	Benzo(k)fluoranthene	980	ug/kg		NJ	14
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D-SIM	2,4-Dimethylphenol	41	ug/kg		J	13
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D-SIM	2-Methylphenol	22	ug/kg		J	13
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC32-2-4	10-5384-QM57J	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B,13
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	1-Methylnaphthalene	470	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2-Methylnaphthalene	340	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Acenaphthene	1700	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Anthracene	1000	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzo(a)anthracene	1500	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzo(a)pyrene	1100	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzo(b)fluoranthene	1100	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzo(g,h,i)perylene	320	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzo(k)fluoranthene	1100	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	600	ug/kg	B	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Carbazole	150	ug/kg	J	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Chrysene	2100	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Dibenz(a,h)anthracene	120	ug/kg	J	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Dibenzofuran	830	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Fluoranthene	6400	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Fluorene	1900	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	290	ug/kg	J	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Naphthalene	500	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Phenanthrene	6100	ug/kg		R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM57	EW10-SC32-2-4	10-5384-QM57JDL	EPA 8270D	Pyrene	4000	ug/kg		R	11
QM57	EW10-SC51-0-2	10-5423-QM57K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC51-0-2	10-5423-QM57K	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC51-0-2	10-5423-QM57K	EPA 8270D	bis(2-Ethylhexyl)phthalate	37	ug/kg	B	U	7
QM57	EW10-SC51-0-2	10-5423-QM57K	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC51-0-2	10-5423-QM57K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC51-0-2	10-5423-QM57K	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC51-2-3.8	10-5424-QM57L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC51-2-3.8	10-5424-QM57L	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC51-2-3.8	10-5424-QM57L	EPA 8270D	bis(2-Ethylhexyl)phthalate	34	ug/kg	B	U	7
QM57	EW10-SC51-2-3.8	10-5424-QM57L	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC51-2-3.8	10-5424-QM57L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC51-2-3.8	10-5424-QM57L	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC63-0-2	10-5425-QM57M	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC63-0-2	10-5425-QM57M	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC63-0-2	10-5425-QM57M	EPA 8270D	bis(2-Ethylhexyl)phthalate	51	ug/kg	B	U	7
QM57	EW10-SC63-0-2	10-5425-QM57M	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC63-0-2	10-5425-QM57M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC63-0-2	10-5425-QM57M	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC63-2-4	10-5426-QM57N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC63-2-4	10-5426-QM57N	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC63-2-4	10-5426-QM57N	EPA 8270D	bis(2-Ethylhexyl)phthalate	25	ug/kg	B	U	7
QM57	EW10-SC63-2-4	10-5426-QM57N	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC63-2-4	10-5426-QM57N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC63-2-4	10-5426-QM57N	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D	Benzo(b)fluoranthene	420	ug/kg		NJ	14
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D	Benzo(k)fluoranthene	420	ug/kg		NJ	14
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC203-0-2	10-5431-QM57S	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 8270D	Benzo(b)fluoranthene	280	ug/kg		NJ	14
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 8270D	Benzo(k)fluoranthene	280	ug/kg		NJ	14
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC203-2-4.3	10-5432-QM57T	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D	Benzo(b)fluoranthene	310	ug/kg		NJ	14
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D	Benzo(k)fluoranthene	310	ug/kg		NJ	14
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC204-0-2	10-5433-QM57U	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	Benzo(b)fluoranthene	840	ug/kg		NJ	14
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	Benzo(k)fluoranthene	840	ug/kg		NJ	14
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	Fluoranthene	3400	ug/kg	ES	R	20
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	Phenanthrene	4400	ug/kg	ES	R	20
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D	Pyrene	3600	ug/kg	ES	R	20
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC204-2-4	10-5434-QM57V	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	1,4-Dichlorobenzene	82	ug/kg	J	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	1-Methylnaphthalene	390	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2-Methylnaphthalene	360	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Acenaphthene	1400	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Anthracene	1600	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzo(a)anthracene	960	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzo(a)pyrene	900	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzo(b)fluoranthene	990	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzo(g,h,i)perylene	290	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzo(k)fluoranthene	990	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	680	ug/kg	B	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Carbazole	120	ug/kg	J	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Chrysene	2000	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Dibenz(a,h)anthracene	140	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Dibenzofuran	740	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Fluorene	1700	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	280	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Naphthalene	450	ug/kg		R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC204-2-4	10-5434-QM57VDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8270D	Benzo(b)fluoranthene	1700	ug/kg		NJ	14
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8270D	Benzo(k)fluoranthene	1700	ug/kg		NJ	14
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC29-0-2	10-5435-QM57W	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 6010B	Antimony		mg/kg	U	UJ	8

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	1-Methylnaphthalene	5100	ug/kg	E	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	2-Methylnaphthalene	5400	ug/kg	E	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	2-Nitrophenol		ug/kg	U	UJ	10
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Acenaphthene	7000	ug/kg	ES	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Benzo(b)fluoranthene	1400	ug/kg		NJ	14
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Benzo(k)fluoranthene	1400	ug/kg		NJ	14
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	bis(2-Ethylhexyl)phthalate	210	ug/kg	B	U	7
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Dibenzofuran	4800	ug/kg	E	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Fluoranthene	7000	ug/kg	ES	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Fluorene	7000	ug/kg	ES	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Naphthalene	11000	ug/kg	ES	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Phenanthrene	5500	ug/kg	ES	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D	Pyrene	5300	ug/kg	ES	R	20
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QM57	EW10-SC29-2-3.9	10-5436-QM57X	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Anthracene	1700	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzo(a)anthracene	1600	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzo(a)pyrene	1000	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzo(b)fluoranthene	950	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzo(g,h,i)perylene	340	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzo(k)fluoranthene	950	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	bis(2-Ethylhexyl)phthalate		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Carbazole	170	ug/kg	J	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Chrysene	1900	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Dibenz(a,h)anthracene	180	ug/kg	J	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	350	ug/kg		R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM57	EW10-SC29-2-3.9	10-5436-QM57XDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM68	EW10-SC101-0-2.3	10-5464-QM68A	Krone et al. 1989	Tributyltin Ion	6.9	ug/kg		J	12
QM68	EW10-SC100-0-1.1	10-5466-QM68C	Krone et al. 1989	Tributyltin Ion	240	ug/kg		J	12
QM68	EW10-SC06-0-2	10-5468-QM68E	Krone et al. 1989	Tributyltin Ion	63	ug/kg		J	12
QM68	EW10-SC06-2-4	10-5469-QM68F	Krone et al. 1989	Tributyltin Ion	4.5	ug/kg		J	12
QM68	EW10-SC37-0-2	10-5470-QM68G	Krone et al. 1989	Tributyltin Ion	13	ug/kg		J	12
QM68	EW10-SC43-0-1.3	10-5472-QM68I	Krone et al. 1989	Tributyltin Ion	110	ug/kg		J	12
QM68	EW10-SC10-0-2.4	10-5476-QM68M	Krone et al. 1989	Tributyltin Ion	120	ug/kg		J	12
QM68	EW10-SC10-2.4-4	10-5477-QM68N	Krone et al. 1989	Tributyltin Ion	11	ug/kg		J	12
QM68	EW10-SC18-0-2	10-5478-QM68O	Krone et al. 1989	Tributyltin Ion	160	ug/kg		J	12
QM68	EW10-SC18-2-4	10-5479-QM68P	Krone et al. 1989	Tributyltin Ion	28	ug/kg		J	12
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 200.8	Arsenic	14.1	mg/kg		J	9
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 6010B	Copper	146	mg/kg		J	8,9
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 6010B	Lead	216	mg/kg		J	8,9
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 7471A	Mercury	1.95	mg/kg		J	9
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 8270D	Benzo(b)fluoranthene	360	ug/kg		NJ	14
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 8270D	Benzo(k)fluoranthene	360	ug/kg		NJ	14
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC33-0-2	10-5591-QM80A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 200.8	Arsenic	20.4	mg/kg		J	9
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 6010B	Copper	137	mg/kg		J	8,9
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 6010B	Lead	208	mg/kg		J	8,9
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 7471A	Mercury	0.99	mg/kg		J	9
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D	Benzo(b)fluoranthene	470	ug/kg		NJ	14
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D	Benzo(k)fluoranthene	470	ug/kg		NJ	14
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D	Fluoranthene	3000	ug/kg	ES	R	20
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D	Pyrene	2800	ug/kg	ES	R	20
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC33-2-3.5	10-5592-QM80B	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Acenaphthene	440	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Anthracene	770	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzo(a)anthracene	930	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzo(a)pyrene	480	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzo(b)fluoranthene	560	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzo(k)fluoranthene	560	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	1100	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Chrysene	1100	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Dibenzofuran	230	ug/kg	J	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Fluorene	490	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Naphthalene	190	ug/kg	J	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Phenanthrene	860	ug/kg		R	11
QM80	EW10-SC33-2-3.5	10-5592-QM80BDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 200.8	Arsenic	16.1	mg/kg		J	9
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 6010B	Copper	127	mg/kg		J	8,9
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 6010B	Lead	113	mg/kg		J	8,9
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 7471A	Mercury	0.49	mg/kg		J	9
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 8270D	Benzo(b)fluoranthene	490	ug/kg		NJ	14
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 8270D	Benzo(k)fluoranthene	490	ug/kg		NJ	14
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC13-0-1.6	10-5593-QM80C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 200.8	Arsenic	2.4	mg/kg		J	9
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 6010B	Copper	13.1	mg/kg		J	8,9
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 6010B	Lead	3	mg/kg		J	8,9
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 7471A	Mercury		mg/kg	U	UJ	9
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D	Benzo(b)fluoranthene	9.1	ug/kg	J	NJ	14
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D	Benzo(k)fluoranthene	9.1	ug/kg	J	NJ	14
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	UJ	13

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	UJ	13
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC13-1.6-4	10-5594-QM80D	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	13
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 200.8	Arsenic	12.9	mg/kg		J	9
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 6010B	Copper	98.6	mg/kg		J	8,9
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 6010B	Lead	114	mg/kg		J	8,9
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 7471A	Mercury	0.49	mg/kg		J	9
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 8270D	Benzo(b)fluoranthene	570	ug/kg		NJ	14
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 8270D	Benzo(k)fluoranthene	570	ug/kg		NJ	14
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC48-0-2	10-5595-QM80E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 200.8	Arsenic	23.3	mg/kg		J	9
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 6010B	Copper	157	mg/kg		J	8,9
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 6010B	Lead	239	mg/kg		J	8,9
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 7471A	Mercury	1.40	mg/kg		J	9
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 8270D	Benzo(b)fluoranthene	440	ug/kg		NJ	14
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 8270D	Benzo(k)fluoranthene	440	ug/kg		NJ	14
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC48-2-4.7	10-5596-QM80F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 200.8	Arsenic	26.2	mg/kg		J	9
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 6010B	Copper	121	mg/kg		J	8,9
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 6010B	Lead	1210	mg/kg		J	8,9
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 7471A	Mercury	1.47	mg/kg		J	9
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8082	Aroclor 1260	240	ug/kg		J	8
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8270D	Benzo(b)fluoranthene	600	ug/kg		NJ	14
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8270D	Benzo(g,h,i)perylene	370	ug/kg		J	8
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8270D	Benzo(k)fluoranthene	600	ug/kg		NJ	14
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8270D	Chrysene	860	ug/kg		J	8
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	8
QM80	EW10-SC50-0-1.6	10-5597-QM80G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	8,10
QM80	EW10-SC50-0-1.6LR	10-5597-QM80GDUP	EPA 200.8	Arsenic	18.1	mg/kg		J	9
QM80	EW10-SC50-0-1.6LR	10-5597-QM80GLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC50-0-1.6LR	10-5597-QM80GLR	EPA 6010B	Copper	175	mg/kg		J	8,9
QM80	EW10-SC50-0-1.6LR	10-5597-QM80GLR	EPA 6010B	Lead	1690	mg/kg		J	8,9
QM80	EW10-SC50-0-1.6LR	10-5597-QM80GLR	EPA 7471A	Mercury	2.70	mg/kg		J	9
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 200.8	Arsenic	4.7	mg/kg		J	9
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 6010B	Copper	22.8	mg/kg		J	8,9
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 6010B	Lead	9	mg/kg		J	8,9
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 7471A	Mercury	0.11	mg/kg		J	9
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 8270D	Benzo(b)fluoranthene	16	ug/kg	J	NJ	14
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 8270D	Benzo(k)fluoranthene	16	ug/kg	J	NJ	14
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC50-1.6-4	10-5598-QM80H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 200.8	Arsenic	14.9	mg/kg		J	9

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 6010B	Copper	145	mg/kg		J	8,9
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 6010B	Lead	229	mg/kg		J	8,9
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 7471A	Mercury	0.64	mg/kg		J	9
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Benzo(a)pyrene	1200	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Benzo(b)fluoranthene	810	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Benzo(g,h,i)perylene	430	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Benzo(k)fluoranthene	810	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Dibenz(a,h)anthracene	230	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Indeno(1,2,3-cd)pyrene	380	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D	Pyrene	3900	ug/kg	ES	R	20
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D-SIM	Butylbenzylphthalate	59	ug/kg	M	R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D-SIM	Dibenz(a,h)anthracene	90	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80I	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Acenaphthene	53	ug/kg	J	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Acenaphthylene	120	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Aniline		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Anthracene	270	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Benzo(a)anthracene	480	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Benzo(b)fluoranthene	1300	ug/kg		NJ	14
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Benzo(k)fluoranthene	1300	ug/kg		NJ	14
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	2000	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Carbazole	110	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Chrysene	740	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Fluoranthene	890	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Fluorene	56	ug/kg	J	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Naphthalene	68	ug/kg	J	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Phenanthrene	470	ug/kg		R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM80	EW10-SC52-0-2	10-5599-QM80IDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 200.8	Arsenic	5.7	mg/kg		J	9
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 6010B	Copper	21.9	mg/kg		J	8,9
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 6010B	Lead	164	mg/kg		J	8,9

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 7471A	Mercury	0.08	mg/kg		J	9
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 8270D	Benzo(b)fluoranthene	79	ug/kg		NJ	14
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 8270D	Benzo(k)fluoranthene	79	ug/kg		NJ	14
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC52-2-4	10-5600-QM80J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 200.8	Arsenic	9.3	mg/kg		J	9
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 6010B	Copper	67.9	mg/kg		J	8,9
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 6010B	Lead	65	mg/kg		J	8,9
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 7471A	Mercury	0.31	mg/kg		J	9
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 8270D	Benzo(b)fluoranthene	460	ug/kg		NJ	14
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 8270D	Benzo(k)fluoranthene	460	ug/kg		NJ	14
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC53-0-2	10-5601-QM80K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 200.8	Arsenic	7.8	mg/kg		J	9
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 6010B	Copper	47.0	mg/kg		J	8,9
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 6010B	Lead	43	mg/kg		J	8,9
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 7471A	Mercury	0.34	mg/kg		J	9
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 8270D	Benzo(b)fluoranthene	220	ug/kg		NJ	14
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 8270D	Benzo(k)fluoranthene	220	ug/kg		NJ	14
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC53-2-4	10-5602-QM80L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 200.8	Arsenic	26.7	mg/kg		J	9
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 6010B	Antimony	8	mg/kg		J	8
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 6010B	Copper	293	mg/kg		J	8,9
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 6010B	Lead	535	mg/kg		J	8,9
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 7471A	Mercury	0.58	mg/kg		J	9
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D	Benzo(b)fluoranthene	4200	ug/kg		NJ	14
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D	Benzo(k)fluoranthene	4200	ug/kg		NJ	14
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D	Fluoranthene	9900	ug/kg	ES	R	20
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D	Phenanthrene	8900	ug/kg	ES	R	20
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D	Pyrene	8500	ug/kg	ES	R	20
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC54-0-2	10-5603-QM80M	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	1-Methylnaphthalene	1000	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2-Methylnaphthalene	1000	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Methylphenol	150	ug/kg	J	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Acenaphthene	2000	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Acenaphthylene	600	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Anthracene	3500	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzo(a)anthracene	5800	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzo(a)pyrene	5800	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzo(b)fluoranthene	4000	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzo(g,h,i)perylene	3000	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzo(k)fluoranthene	4000	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	1300	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Carbazole	1300	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Chrysene	6600	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Dibenz(a,h)anthracene	1400	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Dibenzofuran	830	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Fluorene	2300	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	2800	ug/kg		R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Naphthalene	1600	ug/kg		R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-0-2	10-5603-QM80MDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 200.8	Arsenic	20.0	mg/kg		J	9
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 6010B	Copper	208	mg/kg		J	8,9
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 6010B	Lead	394	mg/kg		J	8,9
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 7471A	Mercury	1.83	mg/kg		J	9
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Benzo(a)pyrene	2800	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Benzo(b)fluoranthene	2700	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Benzo(g,h,i)perylene	660	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Benzo(k)fluoranthene	2700	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Dibenz(a,h)anthracene	300	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D	Indeno(1,2,3-cd)pyrene	700	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QM80	EW10-SC54-2-4	10-5604-QM80N	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Methylphenol	280	ug/kg	J	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Acenaphthene	230	ug/kg	J	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Acenaphthylene	220	ug/kg	J	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Aniline		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Anthracene	1300	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Benzo(a)anthracene	3000	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Benzo(b)fluoranthene	2300	ug/kg		NJ	14
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Benzo(k)fluoranthene	2300	ug/kg		NJ	14
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	330	ug/kg	J	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Chrysene	4000	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Fluoranthene	9800	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Fluorene	300	ug/kg	J	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Naphthalene	460	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Phenanthrene	1500	ug/kg		R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Phenol		ug/kg	U	R	11
QM80	EW10-SC54-2-4	10-5604-QM80NDL	EPA 8270D	Pyrene	7000	ug/kg		R	11
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 7471A	Mercury	0.05	mg/kg		J	8
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D	Benzo(b)fluoranthene	27	ug/kg		NJ	14
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D	Benzo(k)fluoranthene	27	ug/kg		NJ	14
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D	bis(2-Ethylhexyl)phthalate	57	ug/kg	B	U	7
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D-SIM	Dibenz(a,h)anthracene	7.8	ug/kg		J	10
QN06	EW10-SC22-0-1.9	10-5828-QN06A	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 7471A	Mercury		mg/kg	U	UJ	8
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 8270D	bis(2-Ethylhexyl)phthalate	26	ug/kg	B	U	7
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC22-1.9-4	10-5829-QN06B	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 7471A	Mercury	0.49	mg/kg		J	8
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D	Benzo(b)fluoranthene	370	ug/kg		NJ	14
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D	Benzo(k)fluoranthene	370	ug/kg		NJ	14
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D-SIM	Dibenz(a,h)anthracene	69	ug/kg		J	10
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC24-0-2	10-5830-QN06C	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 7471A	Mercury	0.67	mg/kg		J	8
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D	Benzo(b)fluoranthene	440	ug/kg		NJ	14
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D	Benzo(k)fluoranthene	440	ug/kg		NJ	14
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D-SIM	Dibenz(a,h)anthracene	130	ug/kg		J	10
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC24-2-4.7	10-5831-QN06D	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 7471A	Mercury	0.03	mg/kg		J	8
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 8270D	bis(2-Ethylhexyl)phthalate	79	ug/kg	B	U	7
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC25-0.8-2.8	10-5832-QN06E	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 7471A	Mercury		mg/kg	U	UJ	8
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 8270D	bis(2-Ethylhexyl)phthalate	28	ug/kg	B	U	7
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC25-2.8-4.8	10-5833-QN06F	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Anthracene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzo(a)anthracene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzo(a)pyrene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzo(b)fluoranthene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzo(k)fluoranthene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	29	ug/kg	JB	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Chrysene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Fluoranthene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Phenanthrene		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC25-2.8-4.8	10-5833-QN06FDL	EPA 8270D	Pyrene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 7471A	Mercury	0.39	mg/kg		J	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	UJ	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	8,10
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	3-Nitroaniline		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	4-Chloroaniline		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	4-Nitroaniline		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	4-Nitrophenol		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Aniline		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Benzo(b)fluoranthene	69	ug/kg		NJ	14
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Benzo(g,h,i)perylene	23	ug/kg		J	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Benzo(k)fluoranthene	69	ug/kg		NJ	14
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	bis(2-Ethylhexyl)phthalate	42	ug/kg	B	U	7
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Dibenz(a,h)anthracene	10	ug/kg	J	J	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	UJ	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Indeno(1,2,3-cd)pyrene	22	ug/kg		J	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D	Pentachlorophenol		ug/kg	U	R	8
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	8,10
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D-SIM	Dibenz(a,h)anthracene	17	ug/kg		J	10
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC31-0.7-2.7	10-5834-QN06G	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Anthracene	39	ug/kg	J	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzo(a)anthracene	87	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzo(a)pyrene	73	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzo(b)fluoranthene	69	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzo(k)fluoranthene	69	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	52	ug/kg	JB	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Chrysene	120	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Fluoranthene	190	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Phenanthrene	62	ug/kg		R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC31-0.7-2.7	10-5834-QN06GDL	EPA 8270D	Pyrene	200	ug/kg	QB	R	11
QN06	EW10-SC31-0.7-2.7LR	10-5834-QN06GLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC31-0.7-2.7LR	10-5834-QN06GLR	EPA 7471A	Mercury	0.36	mg/kg		J	8
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 7471A	Mercury	0.19	mg/kg		J	8
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D	Benzo(b)fluoranthene	29	ug/kg		NJ	14
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D	Benzo(k)fluoranthene	29	ug/kg		NJ	14
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D	bis(2-Ethylhexyl)phthalate	25	ug/kg	B	U	7
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D-SIM	Dibenz(a,h)anthracene	7.1	ug/kg		J	10
QN06	EW10-SC31-2.7-5.3	10-5835-QN06H	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Anthracene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzo(a)anthracene	46	ug/kg	J	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzo(a)pyrene	37	ug/kg	J	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzo(b)fluoranthene	31	ug/kg	J	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzo(k)fluoranthene	31	ug/kg	J	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	33	ug/kg	JB	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Chrysene	56	ug/kg	J	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Fluoranthene	110	ug/kg		R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Phenanthrene	54	ug/kg	J	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC31-2.7-5.3	10-5835-QN06HDL	EPA 8270D	Pyrene	110	ug/kg	QB	R	11
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 7471A	Mercury	0.59	mg/kg		J	8
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D	Benzo(b)fluoranthene	35	ug/kg		NJ	14
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D	Benzo(k)fluoranthene	35	ug/kg		NJ	14

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D	bis(2-Ethylhexyl)phthalate	20	ug/kg	B	U	7
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D-SIM	Dibenz(a,h)anthracene	17	ug/kg		J	10
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC28-1-3	10-5836-QN06I	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	1,4-Dichlorobenzene	41	ug/kg	J	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Anthracene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzo(a)anthracene	46	ug/kg	J	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzo(a)pyrene	38	ug/kg	J	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzo(b)fluoranthene	35	ug/kg	J	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzo(k)fluoranthene	35	ug/kg	J	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	bis(2-Ethylhexyl)phthalate		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Chrysene	65	ug/kg		R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Fluoranthene	120	ug/kg		R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Phenanthrene	62	ug/kg		R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC28-1-3	10-5836-QN06IDL	EPA 8270D	Pyrene	110	ug/kg	QB	R	11
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 7471A	Mercury	1.18	mg/kg		J	8
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D	Benzo(b)fluoranthene	160	ug/kg		NJ	14
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D	Benzo(k)fluoranthene	160	ug/kg		NJ	14
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D	bis(2-Ethylhexyl)phthalate	90	ug/kg	B	U	7
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	1,4-Dichlorobenzene	250	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	Y	U	22
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	2-Methylphenol		ug/kg	Y	U	22
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	Dibenz(a,h)anthracene	38	ug/kg		J	10,19
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QN06	EW10-SC28-3-5	10-5837-QN06J	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	1,3-Dichlorobenzene	50	ug/kg	J	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	1,4-Dichlorobenzene	220	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2-Methylnaphthalene	39	ug/kg	J	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Acenaphthene	62	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Anthracene	74	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzo(a)anthracene	190	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzo(a)pyrene	170	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzo(b)fluoranthene	140	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzo(g,h,i)perylene	49	ug/kg	J	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzo(k)fluoranthene	140	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	110	ug/kg	B	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Chrysene	270	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Fluoranthene	550	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Fluorene	71	ug/kg		R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	50	ug/kg	J	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Naphthalene	47	ug/kg	J	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Phenanthrene	450	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D	Pyrene	420	ug/kg	QB	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene	44	ug/kg		R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	R	11
QN06	EW10-SC28-3-5	10-5837-QN06JDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 7471A	Mercury	0.43	mg/kg		J	8
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D	Benzo(b)fluoranthene	210	ug/kg		NJ	14
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D	Benzo(k)fluoranthene	210	ug/kg		NJ	14
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D-SIM	Dibenz(a,h)anthracene	48	ug/kg		J	10
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC16-0-1.9	10-5838-QN06K	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 7471A	Mercury	0.47	mg/kg		J	8
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D	Benzo(b)fluoranthene	62	ug/kg		NJ	14
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D	Benzo(k)fluoranthene	62	ug/kg		NJ	14
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D	bis(2-Ethylhexyl)phthalate	54	ug/kg	B	U	7
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D-SIM	Dibenz(a,h)anthracene	16	ug/kg		J	10
QN06	EW10-SC16-1.9-4	10-5839-QN06L	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 7471A	Mercury	0.37	mg/kg		J	8
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 8270D	Benzo(b)fluoranthene	210	ug/kg		NJ	14
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 8270D	Benzo(k)fluoranthene	210	ug/kg		NJ	14
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC14-0-2.8	10-5840-QN06M	EPA 8270D-SIM	Dibenz(a,h)anthracene	14	ug/kg		J	10
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Anthracene	35	ug/kg	J	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzo(a)anthracene	95	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzo(a)pyrene	180	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzo(b)fluoranthene	200	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzo(g,h,i)perylene	48	ug/kg	J	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzo(k)fluoranthene	200	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	200	ug/kg	B	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Chrysene	180	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Fluoranthene	170	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	48	ug/kg	J	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Phenanthrene	63	ug/kg		R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC14-0-2.8	10-5840-QN06MDL	EPA 8270D	Pyrene	320	ug/kg	QB	R	11
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 7471A	Mercury	0.40	mg/kg		J	8
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D	Benzo(b)fluoranthene	87	ug/kg		NJ	14
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D	Benzo(k)fluoranthene	87	ug/kg		NJ	14
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D-SIM	Dibenz(a,h)anthracene	6.8	ug/kg		J	10
QN06	EW10-SC14-2.8-5.3	10-5841-QN06N	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 7471A	Mercury	0.54	mg/kg		J	8
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 8270D	Benzo(b)fluoranthene	250	ug/kg		NJ	14
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 8270D	Benzo(k)fluoranthene	250	ug/kg		NJ	14
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC17-0-2	10-5842-QN06O	EPA 8270D-SIM	Dibenz(a,h)anthracene	28	ug/kg		J	10
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Anthracene	56	ug/kg	J	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzo(a)anthracene	140	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzo(a)pyrene	230	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzo(b)fluoranthene	230	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzo(g,h,i)perylene	64	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzo(k)fluoranthene	230	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	bis(2-Ethylhexyl)phthalate	320	ug/kg	B	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Butylbenzylphthalate	32	ug/kg	J	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Chrysene	240	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Fluoranthene	280	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Indeno(1,2,3-cd)pyrene	63	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Phenanthrene	140	ug/kg		R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC17-0-2	10-5842-QN06ODL	EPA 8270D	Pyrene	390	ug/kg	QB	R	11
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 7471A	Mercury	1.35	mg/kg		J	8
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D	Benzo(b)fluoranthene	200	ug/kg		NJ	14
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D	Benzo(k)fluoranthene	200	ug/kg		NJ	14
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	Y	U	22
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D-SIM	Dibenz(a,h)anthracene	20	ug/kg		R	11
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	Y	U	22
QN06	EW10-SC17-2-4	10-5843-QN06P	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	1,4-Dichlorobenzene	27	ug/kg		R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Butylbenzylphthalate	61	ug/kg		R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	20	ug/kg		J	10
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	R	11
QN06	EW10-SC17-2-4	10-5843-QN06PDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 7471A	Mercury	0.51	mg/kg		J	8
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Benzo(b)fluoranthene	930	ug/kg		NJ	14
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Benzo(k)fluoranthene	930	ug/kg		NJ	14

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Chrysene	1700	ug/kg	ES	R	20
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Fluoranthene	1700	ug/kg	ES	R	20
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D	Pyrene	2000	ug/kg	ESQB	R	20
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D-SIM	Dibenz(a,h)anthracene	270	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06Q	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	1-Methylnaphthalene	100	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2-Methylnaphthalene	84	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Acenaphthene	180	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Acenaphthylene	110	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Anthracene	640	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzo(a)anthracene	1100	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzo(a)pyrene	1400	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzo(b)fluoranthene	1200	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzo(g,h,i)perylene	270	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzo(k)fluoranthene	1200	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	300	ug/kg	B	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Carbazole	170	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Dibenz(a,h)anthracene	150	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Dibenzofuran	61	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Di-n-Butylphthalate	49	ug/kg	J	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Fluorene	260	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	300	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Naphthalene	100	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Phenanthrene	1800	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	1,4-Dichlorobenzene	20	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	2,4-Dimethylphenol	18	ug/kg		R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	240	ug/kg		J	10
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC09-0-2	10-5844-QN06QDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 7471A	Mercury	0.89	mg/kg		J	8
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Benzo(a)anthracene	2500	ug/kg	ES	R	20
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Benzo(a)pyrene	2400	ug/kg	ES	R	20
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Benzo(b)fluoranthene	1400	ug/kg		NJ	14
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Benzo(k)fluoranthene	1400	ug/kg		NJ	14
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Chrysene	2900	ug/kg	ES	R	20

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Fluoranthene	2300	ug/kg	ESQB	R	20
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D	Pyrene	3800	ug/kg	ES	R	20
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D-SIM	Dibenz(a,h)anthracene	400	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06R	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	1-Methylnaphthalene	68	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2-Methylnaphthalene	61	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Acenaphthene	110	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Acenaphthylene	220	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Anthracene	1100	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Benzo(b)fluoranthene	2100	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Benzo(g,h,i)perylene	360	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Benzo(k)fluoranthene	2100	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	bis(2-Ethylhexyl)phthalate	660	ug/kg	B	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Carbazole	260	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Dibenz(a,h)anthracene	200	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Dibenzofuran	62	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Fluorene	180	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	420	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Naphthalene	140	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Phenanthrene	1400	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	2,4-Dimethylphenol	18	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Butylbenzylphthalate	82	ug/kg		R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	240	ug/kg		J	10
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC09-2-4	10-5845-QN06RDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 7471A	Mercury	0.15	mg/kg		J	8
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D	Benzo(b)fluoranthene	27	ug/kg		NJ	14
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D	Benzo(k)fluoranthene	27	ug/kg		NJ	14
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D	bis(2-Ethylhexyl)phthalate	17	ug/kg	JB	U	7
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC34-0.2-2.4	10-5846-QN06S	EPA 8270D-SIM	Dibenz(a,h)anthracene	7.8	ug/kg		J	10,19
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC34-0.2-2.4	10-5846-QN06SDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 7471A	Mercury	0.06	mg/kg		J	8
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	UJ	10
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	Benzo(b)fluoranthene	8.5	ug/kg	J	NJ	14
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	Benzo(k)fluoranthene	8.5	ug/kg	J	NJ	14
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	bis(2-Ethylhexyl)phthalate	23	ug/kg	B	U	7
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D	Pyrene	37	ug/kg	QB	U	7
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN06	EW10-SC34-2.4-3.9	10-5847-QN06T	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN06	EW10-SC34-2.4-3.9	10-5847-QN06TDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 6010B	Copper	25.6	mg/kg		J	8
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 6010B	Zinc	45	mg/kg		J	8
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8082	Aroclor 1254	48	ug/kg	P	J	3
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8270D	Benzo(b)fluoranthene	16	ug/kg	J	NJ	14
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8270D	Benzo(k)fluoranthene	16	ug/kg	J	NJ	14
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC36-0.9-3	10-6066-QN38A	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC36-0.9-3	10-6066-QN38ADL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 6010B	Copper	13.8	mg/kg		J	8
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 6010B	Zinc	21	mg/kg		J	8
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC36-3-5	10-6067-QN38B	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC36-3-5	10-6067-QN38BDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 6010B	Copper	31.8	mg/kg		J	8
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 6010B	Zinc	50	mg/kg		J	8
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 8270D	Benzo(b)fluoranthene	39	ug/kg		NJ	14
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 8270D	Benzo(k)fluoranthene	39	ug/kg		NJ	14
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC39-0-2	10-6068-QN38C	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC39-0-2	10-6068-QN38CDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 6010B	Copper	21.1	mg/kg		J	8
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 6010B	Zinc	25	mg/kg		J	8
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC39-2-3.4	10-6069-QN38D	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC39-2-3.4	10-6069-QN38DDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 6010B	Copper	87.3	mg/kg		J	8
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 6010B	Zinc	170	mg/kg		J	8
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 8270D	Benzo(b)fluoranthene	81	ug/kg		NJ	14
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 8270D	Benzo(k)fluoranthene	81	ug/kg		NJ	14
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC40-0-1	10-6070-QN38E	EPA 8270D-SIM	Dibenz(a,h)anthracene	8.5	ug/kg		J	19
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC40-0-1	10-6070-QN38EDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 6010B	Copper	67.2	mg/kg		J	8
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 6010B	Zinc	126	mg/kg		J	8
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D	Benzo(b)fluoranthene	22	ug/kg		NJ	14
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D	Benzo(k)fluoranthene	22	ug/kg		NJ	14
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D-SIM	Dibenz(a,h)anthracene	7.3	ug/kg		J	19
QN38	EW10-SC40-1-4	10-6071-QN38F	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 6010B	Copper	138	mg/kg		J	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 6010B	Zinc	237	mg/kg		J	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D	Benzo(b)fluoranthene	74	ug/kg		NJ	14
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D	Benzo(k)fluoranthene	74	ug/kg		NJ	14
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D	Benzoic Acid		ug/kg	U	UJ	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B,8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D	Pentachlorophenol		ug/kg	U	R	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D-SIM	Butylbenzylphthalate	42	ug/kg		J	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D-SIM	Dibenz(a,h)anthracene	21	ug/kg		R	11
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	UJ	8
QN38	EW10-SC42-0-2	10-6072-QN38G	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Butylbenzylphthalate	61	ug/kg		R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Dibenz(a,h)anthracene	27	ug/kg		J	8
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC42-0-2	10-6072-QN38GDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC42-0-2LR	10-6072-QN38GLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC42-0-2LR	10-6072-QN38GLR	EPA 6010B	Copper	131	mg/kg		J	8
QN38	EW10-SC42-0-2LR	10-6072-QN38GLR	EPA 6010B	Zinc	232	mg/kg		J	8
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 6010B	Copper	152	mg/kg		J	8
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 6010B	Zinc	286	mg/kg		J	8
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D	Benzo(b)fluoranthene	140	ug/kg		NJ	14
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D	Benzo(k)fluoranthene	140	ug/kg		NJ	14
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D-SIM	Dibenz(a,h)anthracene	15	ug/kg		J	19
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
QN38	EW10-SC42-2-4	10-6073-QN38H	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	N-Nitrosodiphenylamine	22	ug/kg	M	R	11
QN38	EW10-SC42-2-4	10-6073-QN38HDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 6010B	Copper	17.2	mg/kg		J	8
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 6010B	Zinc	25	mg/kg		J	8
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC44-0-2	10-6074-QN38I	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC44-0-2	10-6074-QN38IDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 6010B	Copper	11.8	mg/kg		J	8
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 6010B	Zinc	20	mg/kg		J	8
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC44-2-4	10-6075-QN38J	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC44-2-4	10-6075-QN38JDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 6010B	Copper	114	mg/kg		J	8
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 6010B	Zinc	179	mg/kg		J	8
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 8270D	Benzo(b)fluoranthene	140	ug/kg		NJ	14
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 8270D	Benzo(k)fluoranthene	140	ug/kg		NJ	14
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC47-0-2	10-6076-QN38K	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 6010B	Copper	55.1	mg/kg		J	8
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 6010B	Zinc	96	mg/kg		J	8
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8082	Aroclor 1254	71	ug/kg	P	J	3
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D	Benzo(b)fluoranthene	39	ug/kg		NJ	14
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D	Benzo(k)fluoranthene	39	ug/kg		NJ	14
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	UJ	19
QN38	EW10-SC47-2-3.6	10-6077-QN38L	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	UJ	5B
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC47-2-3.6	10-6077-QN38LDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 6010B	Copper	82.2	mg/kg		J	8
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 6010B	Zinc	125	mg/kg		J	8
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D	Benzo(b)fluoranthene	76	ug/kg		NJ	14
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D	Benzo(k)fluoranthene	76	ug/kg		NJ	14
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D	bis(2-Ethylhexyl)phthalate	1800	ug/kg	E	R	20
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC49-0-1.6	10-6078-QN38M	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	UJ	5B
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Aniline		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Anthracene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzo(a)anthracene	42	ug/kg	J	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzo(a)pyrene	80	ug/kg		R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzo(b)fluoranthene	75	ug/kg		R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzo(g,h,i)perylene	49	ug/kg	J	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzo(k)fluoranthene	75	ug/kg		R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Carbazole		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Chrysene	61	ug/kg		R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Fluoranthene	70	ug/kg		R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Fluorene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	41	ug/kg	J	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Isophorone		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Phenanthrene	46	ug/kg	J	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Phenol		ug/kg	U	R	11
QN38	EW10-SC49-0-1.6	10-6078-QN38MDL	EPA 8270D	Pyrene	200	ug/kg		R	11

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 6010B	Copper	22.0	mg/kg		J	8
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 6010B	Zinc	31	mg/kg		J	8
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8082	Aroclor 1232		ug/kg	Y	U	22
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8270D	Benzo(b)fluoranthene	8.8	ug/kg	J	NJ	14
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8270D	Benzo(k)fluoranthene	8.8	ug/kg	J	NJ	14
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC49-1.6-4	10-6079-QN38N	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	UJ	5B
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 6010B	Copper	20.3	mg/kg		J	8
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 6010B	Zinc	28	mg/kg		J	8
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC56-0-2	10-6080-QN38O	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	UJ	5B
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 6010B	Copper	14.2	mg/kg		J	8
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 6010B	Zinc	23	mg/kg		J	8
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	5B,10
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC56-2-4	10-6081-QN38P	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	UJ	5B
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 6010B	Copper	22.9	mg/kg		J	8
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 6010B	Zinc	30	mg/kg		J	8
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC62-0-2	10-6082-QN38Q	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	UJ	5B
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 6010B	Antimony		mg/kg	U	UJ	8
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 6010B	Copper	17.5	mg/kg		J	8
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 6010B	Zinc	25	mg/kg		J	8
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 8270D	Benzyl Alcohol		ug/kg	U	UJ	5B
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	UJ	5B
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 8270D	Pentachlorophenol		ug/kg	U	UJ	10
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
QN38	EW10-SC62-2-3.3	10-6083-QN38R	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	UJ	5B
QO05	EW10-SC11-2-4	10-6537-QO05B	EPA 8081B	4,4'-DDE	100	ug/kg	P	J	3
QO05	EW10-SC11-2-4	10-6537-QO05B	EPA 8081B	4,4'-DDT		ug/kg	Y	U	22
QO05	EW10-SC11-2-4	10-6537-QO05B	EPA 8081B	delta-BHC		ug/kg	Y	U	22
QO05	EW10-SC11-2-4	10-6537-QO05B	EPA 8081B	gamma Chlordane		ug/kg	Y	U	22
QO05	EW10-SC11-2-4	10-6537-QO05B	EPA 8081B	Heptachlor Epoxide		ug/kg	Y	U	22
QO05	EW10-SC19-0-2.5	10-6538-QO05C	EPA 8081B	4,4'-DDT		ug/kg	Y	U	22
QO05	EW10-SC54-0-2	10-6542-QO05G	EPA 8081B	4,4'-DDT		ug/kg	Y	U	22
QO05	EW10-SC54-0-2	10-6542-QO05G	EPA 8081B	gamma Chlordane		ug/kg	Y	U	22

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QO05	EW10-SC54-2-4	10-6543-QO05H	EPA 8081B	2,4'-DDE	120	ug/kg	P	J	3
QO05	EW10-SC23-0-1.3	10-6544-QO05I	Krone et al. 1989	Tributyltin Ion	42	ug/kg		J	12
QO05	EW10-SC26-0-2.7	10-6546-QO05K	Krone et al. 1989	Tributyltin Ion	45	ug/kg		R	11
QO05	EW10-SC26-0-2.7	10-6546-QO05KDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO05	EW10-SC26-0-2.7	10-6546-QO05KDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO05	EW10-SC26-0-2.7	10-6546-QO05KDL	Krone et al. 1989	Tributyltin Ion	39	ug/kg		J	12
QO05	EW10-SC33-0-2	10-6550-QO05O	Krone et al. 1989	Tributyltin Ion	100	ug/kg		J	12
QO05	EW10-SC33-2-3.5	10-6551-QO05PDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO05	EW10-SC33-2-3.5	10-6551-QO05PDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO05	EW10-SC33-2-3.5	10-6551-QO05PDL	Krone et al. 1989	Tributyltin Ion		ug/kg	U	R	11
QO05	EW10-SC50-0-1.6	10-6552-QO05Q	Krone et al. 1989	Tributyltin Ion	72	ug/kg		R	11
QO05	EW10-SC50-0-1.6	10-6552-QO05QDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO05	EW10-SC50-0-1.6	10-6552-QO05QDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO05	EW10-SC50-0-1.6	10-6552-QO05QDL	Krone et al. 1989	Tributyltin Ion	66	ug/kg		J	12
QO07	EW10-SC39-0-2	10-6558-QO07A	EPA 8081B	4,4'-DDT		ug/kg	Y	U	22
QO07	EW10-SC17-0-2	10-6560-QO07C	Krone et al. 1989	Dibutyltin Ion	18	ug/kg		R	11
QO07	EW10-SC17-0-2	10-6560-QO07C	Krone et al. 1989	Tributyltin Ion	160	ug/kg		R	11
QO07	EW10-SC17-0-2	10-6560-QO07CDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC17-0-2	10-6560-QO07CDL	Krone et al. 1989	Dibutyltin Ion	17	ug/kg		J	12
QO07	EW10-SC17-2-4	10-6561-QO07D	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC17-2-4	10-6561-QO07D	Krone et al. 1989	Tributyltin Ion	36	ug/kg		R	11
QO07	EW10-SC17-2-4	10-6561-QO07DDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC17-2-4	10-6561-QO07DDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO07	EW10-SC36-0.9-3	10-6562-QO07E	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC36-0.9-3	10-6562-QO07EDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC36-0.9-3	10-6562-QO07EDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO07	EW10-SC36-0.9-3	10-6562-QO07EDL	Krone et al. 1989	Tributyltin Ion		ug/kg	U	R	11
QO07	EW10-SC36-3-5	10-6563-QO07F	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC40-0-1	10-6564-QO07G	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC40-0-1	10-6564-QO07GDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC40-0-1	10-6564-QO07GDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO07	EW10-SC40-0-1	10-6564-QO07GDL	Krone et al. 1989	Tributyltin Ion		ug/kg	U	R	11
QO07	EW10-SC40-1-4	10-6565-QO07H	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC40-1-4	10-6565-QO07HDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC40-1-4	10-6565-QO07HDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO07	EW10-SC40-1-4	10-6565-QO07HDL	Krone et al. 1989	Tributyltin Ion		ug/kg	U	R	11
QO07	EW10-SC44-0-2	10-6566-QO07I	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC44-2-4	10-6567-QO07J	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC47-0-2	10-6568-QO07K	Krone et al. 1989	Dibutyltin Ion	13	ug/kg		R	11
QO07	EW10-SC47-0-2	10-6568-QO07K	Krone et al. 1989	Tributyltin Ion	110	ug/kg		R	11
QO07	EW10-SC47-0-2	10-6568-QO07KDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC47-0-2	10-6568-QO07KDL	Krone et al. 1989	Dibutyltin Ion	14	ug/kg		J	12
QO07	EW10-SC47-2-3.6	10-6569-QO07L	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC47-2-3.6	10-6569-QO07LDL	Krone et al. 1989	Butyltin Ion		ug/kg	U	R	11
QO07	EW10-SC47-2-3.6	10-6569-QO07LDL	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	R	11
QO07	EW10-SC47-2-3.6	10-6569-QO07LDL	Krone et al. 1989	Tributyltin Ion		ug/kg	U	R	11
QO07	EW10-SC49-0-1.6	10-6570-QO07M	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC49-1.6-4	10-6571-QO07N	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12

Qualified Data Summary Table
East Waterway Subsurface Sediment Coring

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validator Qualifier	Validator Reason
QO07	EW10-SC56-0-2	10-6572-QO07O	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12
QO07	EW10-SC56-2-4	10-6573-QO07P	Krone et al. 1989	Dibutyltin Ion		ug/kg	U	UJ	12

EcoChem, INC.
Environmental Data Quality

DATA VALIDATION REPORT

Duwamish - East Waterway
Subsurface Investigation

Prepared for:

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EcoChem Project: C20708-1

June 25, 2010

Approved for Release

Eric Strout
Technical Director
EcoChem, Inc.

PROJECT NARRATIVE

Basis for Data Validation

This report summarizes the results of Stage 3 (total solids, total organic solids, and grain size) and Stage 4 (all other tests) validation performed on sediment and quality control (QC) sample data for the Duwamish – East Waterway Subsurface Investigation. A complete list of samples is provided in the **Sample Index**. Laboratory batch ID numbers and associated level of validation is provided at the beginning of each technical section

Samples were analyzed by Analytical Resources, Inc, Tukwila, Washington. The analytical methods and EcoChem project chemists are listed below:

Analysis	Method of Analysis	Primary Review	Secondary Review
Semivolatile Organic Compounds	SW8270D	James Hall	Eric Strout
Select Semivolatile Organic Compounds	SW8270D-SIM		
PCB Aroclors	SW8082	Melissa Swanson	
Metals & Mercury	SW6010/E200.8	Dorothy Kerlin	Christine Ransom
Mercury	SW7471A		
Total Organic Carbon (TOC)	Plumb, 1981		
Grain size	PSEP		
Total Solids	EPA 160.3		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; *East Waterway Operable Unit Supplemental Remedial Investigation/Feasibility Study, Quality Assurance Project Plan: Subsurface Sediment Sampling for Chemical Analyses in the East Waterway* (Windward Environmental LLC, Jan 2010); *USEPA National Functional Guidelines for Organic Data Review* (EPA, 1999); and *USEPA National Functional Guidelines for Inorganic Data Review* (USEPA, 2004).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

Data qualifier definitions, reason codes, and validation criteria are included as **Appendix A**. Data Validation Worksheets and the associated communication records will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) was also submitted with this report.

Sample Index
Anchor QEA - East Waterway Subsurface Investigation
Analytical Resources, Inc. - Sediment Samples

SDG	Sample ID	Lab ID	SVOC	SV-SIM	PCB	Metals	TOC	G.S.	**T.S.**
QP28	EW10-SB02-12-14	10-7455-QP28B	✓	✓	✓	✓	✓	✓	✓
QP28	EW10-SB02-4-6	10-7456-QP28C	✓	✓	✓	✓	✓	✓	✓
QP28	EW10-SB01-16-18	10-7457-QP28D	✓	✓	✓	✓	✓	✓	✓
QP28	EW10-SB01-12.5-14.5	10-7458-QP28E	✓	✓	✓	✓	✓	✓	✓
QP28	EW10-SB02-4-6A	10-7720-QP28G						✓	
QP39	EW10-SB02-0-2	10-7506-QP39A	✓	✓	✓	✓	✓	✓	✓
QP39	EW10-SB01-0-2	10-7507-QP39B	✓	✓	✓	✓	✓	✓	✓
QP39	EW10-SB01-3.5-5.2	10-7508-QP39C	✓	✓	✓	✓	✓	✓	✓

DATA VALIDATION REPORT
East Waterway - Subsurface Investigation
Semivolatile Compounds by Method SW8270D

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QP28	4 Sediment	Stage 4
QP39	3 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables except for the following. The quantitation report submitted by the laboratory for Sample EW10-SB02-4-6 was missing the results for two target analytes (1 and 2-methylnaphthalene). Upon request the laboratory provided an updated hardcopy.

The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC elements that were reviewed are summarized in the table below.

1	Holding Times and Sample Preservation
	GC/MS Instrument Performance
	Initial Calibration (ICAL)
2	Continuing Calibration (CCAL)
	Laboratory Blanks
1	Field Blanks
	Surrogate Compounds
2	Laboratory Control Samples (LCS)
1	Reference Material
2	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	Internal Standards
1	Field Duplicates
	Target Analyte List
	Reporting Limits
2	Reported Results
2	Compound Identification
1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

The QAPP states that the cooler temperatures should be within a temperature range of 2°C to 6°C. The laboratory received two sample coolers with temperatures greater than 6°C, with the highest temperature at 13.0°C. For all instances where the cooler temperatures were greater than the upper control limit, the samples were received the same day they were collected. This did not allow sufficient time for the samples and coolers to come down to the lowest possible temperature. It was determined that these temperature outliers did not impact data quality and no qualifiers were assigned.

Continuing Calibration

All relative response factor (RRF) values were greater than the 0.05 minimum control limit.

All percent difference (%D) values were within the ±25% control limit, with the exceptions noted below. If the %D outlier indicated a potential high bias, associated positive results were estimated (J-5B). If the %D outlier indicated a potential low bias, associated positive results and detection limits were estimated (J/UJ-5B).

SDG QP28 and QP39:

CCAL Date	Instrument ID	Analyte	Bias
3/31/10	NT4	Hexachlorocyclopentadiene	Low
4/1/10	NT4	Benzyl alcohol	High
		Hexachlorocyclopentadiene	Low

Field Blanks

No samples identified as field blanks were submitted.

Laboratory Control Samples

A laboratory control sample (LCS) was analyzed at the proper frequency of one per batch. The LCS recovery values were within the laboratory control limits, with the exceptions noted below. For recoveries less than the lower control limit, associated results were estimated (J/UJ-10) to indicate a potential low bias.

The following outliers resulted in qualification of data:

SDG QP28 and QP39: For the LCS extracted on 3/26/10, the recovery values for phenol and pentachlorophenol were less than the lower control limit. These compounds were not detected in any sample. The detection limits were estimated (UJ-10) in the associated samples.

Reference Material

The laboratory analyzed a reference material sample (Sequim Bay reference sediment SQ-1) with the sediment samples. Although the results for some analytes were outside of the reference ranges, no data were qualified as none of the reference values have been certified.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed at the required frequency. The MS/MSD recovery values were within the laboratory control limits, with the exceptions noted below. No action was taken if only one of the MS/MSD recoveries was outside of the control limits. For MS/MSD recoveries greater than the upper control limit, positive results in the parent sample only were estimated (J-8) to indicate a potential high bias. For recoveries less than the lower control limit, positive results and reporting limits in the parent sample were estimated (J/UJ-8) to indicate a potential low bias. If the recoveries were less than 10%, detected results were estimated (J-8) and reporting limits were rejected (R-8).

The MS/MSD relative percent difference (RPD) values were less than the 50% control limit, with the exception of 3,3'-dichlorobenzidine (at 53%). There were no positive results associated with the RPD outlier; therefore no qualification of data was necessary based on laboratory precision.

The following MS/MSD recovery outliers resulted in qualification of data:

SDG QP39: EW10-SB01-3.5-5.2 MS/MSD:

4-chloroaniline, aniline, benzyl alcohol, hexachlorocyclopentadiene – rejected (R-8) benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)-pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene – (J-8) low bias

Field Duplicates

No samples identified as field duplicates were submitted.

Reported Results

The concentrations of one or more target analytes were greater than the calibrated linear range of the instrument in all samples except EW10-SB02-12-14. The samples were re-analyzed at dilution factors ranging from 3x to 30x. Both sets of data were reported. The results that exceeded the linear range in the original analysis were rejected (R-20), and are reported from the dilution. The results for all other compounds in the dilutions were rejected (R-11). The following samples were diluted based on high concentrations of the target analytes listed below:

SDG QP28:

EW10-SB02-4-6: fluoranthene

EW10-SB01-16-18: naphthalene, acenaphthene, phenanthrene

EW10-SB01-12.5-14.5: naphthalene, 2-methylnaphthalene, acenaphthene, dibenzofuran, fluorene, phenanthrene, anthracene, fluoranthene, 1-methylnaphthalene, pyrene Naphthalene and phenanthrene required a second dilution.

SDG QP39:

EW10-SB02-0-2: naphthalene, 2-methylnaphthalene, acenaphthene, dibenzofuran, fluorene, phenanthrene, fluoranthene, pyrene, chrysene, 1-methylnaphthalene

EW10-SB01-0-2: acenaphthene, phenanthrene, chrysene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, benzo(a)pyrene

EW10-SB01-3.5-5.2: naphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, 1-methylnaphthalene

Compound Identification

SDGs QP28 & QP39: The isomers benzo(b)fluoranthene and benzo(k)fluoranthene typically elute within two seconds of each other. For the field samples, at the benzo(b)fluoranthene and benzo(k)fluoranthene retention times, either a single peak or closely co-eluting peaks were present. Since the individual isomers could not be chromatographically distinguished, the laboratory used half of the peak area to calculate the benzo(b)fluoranthene concentration, and the other half to calculate benzo(k)fluoranthene. Since it is not possible to determine whether only one or both analytes were present, the positive results for these analytes were tentatively identified and estimated (NJ-14). If only a total benzofluoranthene value is used, then the total benzofluoranthene results are acceptable without qualification.

SDG QP39: In the original analysis of Sample EW10-SB02-0-2, the benzo(a)anthracene and anthracene results were "M" flagged by the laboratory to indicate a poor spectral match. A review of the spectra indicated that the reported concentrations were most likely high biased due to the contribution of a co-eluting compound. The sample was reanalyzed at a 10x dilution factor, with similar concentrations and acceptable spectra for these compounds. The results in the original analysis were rejected (R-11) in favor of the dilution analysis results.

Calculation Verification

SDGs QP28 & QP39: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD recoveries, except as previously noted. Precision was also acceptable as demonstrated by the RPD values for the MS/MSD analyses, with the exception noted above.

Data were estimated due to CCAL %D outliers and LCS and MS/MSD accuracy outliers. Data were also qualified as estimates with tentative identification due to a co-elution of two isomers.

Data were rejected based on MS/MSD %R values that were less than 10%. Data were also rejected in order to indicate the usable result when multiple results were reported due to necessary dilutions.

Data that have been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Subsurface Investigation
Select Semivolatile Organic Compounds by Method SW8270D-SIM

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QP28	4 Sediment	Stage 4
QP39	3 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC elements that were reviewed are listed in the following table:

1	Holding Times and Sample Preservation	1	Reference Material
	GC/MS Instrument Performance	2	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	Initial Calibration (ICAL)	1	Internal Standards
	Continuing Calibration (CCAL)	1	Field Duplicates
	Laboratory Blanks		Target Analyte List
1	Field Blanks	2	Reporting Limits
1	Surrogate Compounds	2	Compound Identification (full validation only)
2	Laboratory Control Samples (LCS)	1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

The QAPP states that the cooler temperatures should be within a temperature range of 2°C to 6°C. The laboratory received two sample coolers with temperatures greater than 6°C, with the highest temperature at 13.0°C. For all instances where the cooler temperatures were greater than the upper

control limit, the samples were received the same day they were collected. This did not allow sufficient time for the samples and coolers to come down to the lowest possible temperature. It was determined that these temperature outliers did not impact data quality and no qualifiers were assigned.

Field Blanks

No samples identified as field blanks were submitted.

Surrogate Compounds

The percent recovery (%R) values for the surrogates were within the specified control limits with the exceptions noted below. If the outliers indicated a potential high bias, the associated positive results were estimated (J-13). If the outliers indicated a potential low bias, positive results and reporting limits were estimated (J/UJ-13). No action was necessary if the %R value for only one surrogate per fraction (acid or base-neutral) was outside the control limits.

SDG QP28: The 2,4,6-tribromophenol %R value was less than the lower control limit for Samples EW10-SB02-4-6 and EW10-SB02-12-14MSD. No action was necessary for the single outlier.

SDG QP39: The %R value for terphenyl was greater than the upper control limit for Sample EW10-SB01-0-2. No action was necessary for the single outlier.

Laboratory Control Samples

A laboratory control sample (LCS) was analyzed at the proper frequency of one per batch. The LCS recovery values were within the laboratory control limits, with the exceptions noted below. For recoveries less than 10%, detected results were estimated (J-10) and reporting limits were rejected (R-10). The following outliers resulted in qualification of data:

SDG QP28 and QP39: The LCS %R value for benzyl alcohol was less than 10%. This analyte was not detected in the associated samples; reporting limits were rejected (R-10).

Reference Material

The laboratory analyzed a reference material sample (Sequim Bay reference sediment SQ-1) with the sediment samples. Although the results for some analytes were outside of the reference ranges, no data were qualified as none of the reference values have been certified.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed at the required frequency. The MS/MSD relative percent difference (RPD) values and recovery values were within the

laboratory control limits, with the exceptions noted below. For recoveries were less than 10%, detected results were estimated (J-8) and reporting limits were rejected (R-8). The following %R value outliers resulted in qualification of data:

SDG QP28: QC Sample EW10-SB02-12-14: benzyl alcohol – (R-8)

Internal Standards

SDG QP28 and QP39: The recovery of the internal standard perylene-d12 in the method blank was less than the acceptance limit of 50%. No target analytes were detected in the blank. The internal standard outlier did not impact data quality and no further action was taken.

Field Duplicates

No samples identified as field duplicates were submitted.

Reporting Limits

SDG QP28: The reporting limit for n-nitrosodiphenylamine was elevated due to matrix interference and was flagged with a "Y" by the laboratory in Samples EW10-SB02-4-6, EW10-SB01-16-18, and EW10-SB01-12.5-14.5. The results were qualified as (U-22) to indicate the result is not-detected at the elevated RL.

The reporting limit for 2,4-dimethylphenol was elevated due to matrix interference and was flagged with a "Y" by the laboratory in Sample EW10-SB01-12.5-14.5. The result was qualified as (U-22) to indicate the result is not-detected at the elevated RL.

SDG QP39: The reporting limit for n-nitrosodiphenylamine was elevated due to matrix interference and was flagged with a "Y" by the laboratory in Samples EW10-SB02-0-2, EW10-SB01-0-2, and EW10-SB01-3.5-5.2. These results were qualified as (U-22) to indicate the results are not-detected at the elevated RL.

Sample EW10-SB01-0-2 was analyzed at dilution (3x) due to the high level of polycyclic aromatic hydrocarbons in the sample. Reporting limits were adjusted accordingly.

Compound Identification

SDG QP39: The butylbenzylphthalate result in Sample EW10-SB01-0-2 was flagged "M" by the laboratory to indicate a poor spectral fit. The spectra were reviewed and it was determined that although there is a spectral match for butylbenzylphthalate, there is also a co-eluting unknown compound that is interfering with the butylbenzylphthalate peak shapes. Due to this, the result was estimated (J-14) to indicate that the reported result may be biased due to the interference.

Calculation Verification

SDGs QP28 & QP39: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD recoveries, with the exceptions noted above. Precision was also acceptable as demonstrated by the RPD values for the MS/MSD analyses.

Reporting limits were elevated based on matrix interferences. One data point was estimated due to interference.

Data were rejected due to LCS and MS/MSD recoveries that were less than 10%.

Data that have been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Subsurface Investigation
PCB Aroclors by Method SW8082

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a list of samples reviewed.

SDG	Number of Samples	Validation Level
QP28	4 Sediment	Stage 4
QP39	3 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC elements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	1	Reference Materials
	Initial Calibration (ICAL)	1	Field Duplicates
	Continuing Calibration (CCAL)		Target Analyte List
	Laboratory Blanks	1	Reporting Limits
1	Field Blanks		Reported Results
	Surrogate Compounds	2	Compound Identification
	Laboratory Control Samples (LCS)	1	Calculation Verification (full validation only)
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)		

[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Holding Times and Sample Preservation

The QAPP states that the cooler temperatures should be within a temperature range of 2°C to 6°C. The laboratory received two sample coolers with temperatures greater than 6°C, with the highest temperature at 13.0°C. For all instances where the cooler temperatures were greater than the upper control limit, the samples were received the same day they were collected. This did not allow

sufficient time for the samples and coolers to come down to the lowest possible temperature. It was determined that these temperature outliers did not impact data quality and no qualifiers were assigned.

Field Blanks

No samples identified as field blanks were submitted.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples were analyzed at the proper frequency. The MS/MSD relative percent difference (RPD) values and percent recovery (%R) values were within the laboratory control limits, with the exceptions noted below.

For recoveries less than the lower control limit, positive results and reporting limits are estimated (J/UJ-8) in the parent sample to indicate a potential low bias. For recoveries greater than the upper control limit, positive results in the parent sample are estimated (J-8) to indicate a potential high bias. If only one of the MS or MSD recovery values was outside of the control limits, no action was taken. For RPD value outliers, no action was taken unless the analyte was detected in the parent sample.

The sample used for the MS/MSD analyses and %R and RPD outliers are noted below:

SDG QP28: QC Sample EW10-SB01-12.5-14.5: Aroclor 1016 – high bias (sample ND, no action)

QC Sample EW10-SB01-16-18: Aroclor 1016 – high bias (sample ND, no action);
Aroclor 1260 – MSD only & RPD (sample ND, no action)

Reference Material

The laboratory analyzed a reference material sample (Sequim Bay reference sediment SQ-1) with the sediment samples. Although the results for Aroclor 1254 were outside of the reference ranges, no data were qualified as none of the reference values have been certified.

Field Duplicates

No samples identified as field duplicates were submitted.

Reporting Limits

The samples were analyzed at a 5x or 10x dilution; reporting limits were elevated accordingly.

Compound Identification

Several chromatograms indicated non-target background interference. The reporting limits for these analytes were flagged "Y" by the laboratory. These "Y" flagged results were qualified as not-detected (U-22) to indicate that the reported value represents an elevated reporting limit.

Calculation Verification

SDG QP28: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD recoveries, with the exceptions noted above. Precision was also acceptable as demonstrated by the MS/MSD relative percent difference values, with the above noted exception.

Data were qualified as not detected to indicate that the laboratory "Y" flags represent elevated reporting limits due to matrix interferences.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Subsurface Investigation
Metals Analyses by EPA 200.8 and SW6010B, Mercury by SW7471A

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
QP28	4 Sediment	Stage 4
QP39	3 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified.

III. TECHNICAL DATA VALIDATION

The QC elements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	1	Reference Materials
	ICP-MS Tunes	2	Matrix Spike (MS)
	Initial Calibrations (ICAL)		Laboratory Duplicates
	Initial and Continuing Calibration Verification (ICV/CCV)	1	Field Duplicates
	Contract Required Detection Limit Standards (CRDL)		ICP Interference Check Samples
	Laboratory Blanks		ICP-MS Internal Standards
1	Field Blanks	1	Reporting Limits
	Laboratory Control Samples (LCS)	1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The QAPP states that the cooler temperatures should be within a temperature range of 0°C to 6°C. The laboratory received two sample coolers with temperatures greater than 6°C, with the highest temperature at 13.0°C. For all instances where the cooler temperatures were greater than the upper control limit, the samples were received the same day as collection. It was determined that these temperature outliers did not impact data quality and no qualifiers were assigned.

Field Blanks

No samples identified as field blanks were submitted.

Reference Materials

The reference material ERA D053540 was analyzed. All results were within the manufacturer's performance acceptance limits.

Matrix Spike

A matrix spike sample (MS) was analyzed using Sample EW10-SB02-12-14. The antimony recovery value (16.5%) was less than the lower control limit of 75%. The laboratory analyzed a post digestion spike and the antimony recovery was within the 75%-125% control limits. Because the post spike recovery was acceptable, all antimony results were estimated (UJ-8) instead of being rejected.

Field Duplicates

No samples identified as field duplicates were submitted.

Reporting Limits

SDG QP39: Due to high concentrations of the interfering element iron, Samples EW10-SB01-0-2 EW-SB01-3.5-5.2 were analyzed by ICP (6010B) at a 5X dilution. Reporting limits were elevated accordingly for all target analytes reported from this method.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the laboratory control sample, standard reference material, and matrix spike percent recovery values, with the exception noted above. The laboratory duplicate RPD values indicated acceptable precision.

Data were estimated due to a matrix spike recovery outlier.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Subsurface Investigation
Conventional Analyses

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the Sample Index for a list of the individual samples.

SDG	Number of Samples	Validation Level
QP28	4 Sediment	Stage 3
QP39	3 Sediment	Stage 3

A fifth sample (EW10-SB02-4-6A) was analyzed for grain size only in SDG QP28.

The analytical tests that were performed are summarized below:

Parameter	Method
Total Solids	EPA 160.3
Total Organic Carbon (TOC)	Plumb, 1981
Grain Size	PSEP

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all necessary deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC elements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	1	Standard Reference Material
	Initial Calibration		Matrix Spikes (MS)
	Calibration Verification		Laboratory Replicates
	Laboratory Blanks		Reporting Limits
	Laboratory Control Samples (LCS)		Reported Results

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The QAPP states that the cooler temperatures should be within a temperature range of 2°C to 6°C. The laboratory received two sample coolers with temperatures greater than 6°C, with the highest temperature at 13°C. For all instances where the cooler temperatures were greater than the upper control limit, the samples were received the same day of collection. This did not allow sufficient time for the samples and coolers to come down to the lowest possible temperature. It was determined that these temperature outliers did not impact data quality and no qualifiers were assigned.

Standard Reference Material

The standard reference material NIST 8704 was analyzed for TOC. The recovery was within the control limits.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the laboratory control sample, standard reference material, and matrix spike percent recovery values. Precision was also acceptable as demonstrated by the laboratory replicate percent relative standard deviation (%RSD) values.

All data, as reported, are acceptable for use.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives

EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	Water: J(+)/UJ(-) if ext. > 7 and < 21 days J(+)/R(-) if ext > 21 days (EcoChem PJ) Solids/Wastes: J(+)/UJ(-) if ext. > 14 and < 42 days J(+)/R(-) if ext. > 42 days (EcoChem PJ) J(+)/UJ(-) if analysis >40 days	1
Tuning	DFTPP Beginning of each 12 hour period Method acceptance criteria	R(+/-) all analytes in all samples associated with the tune	5A
Initial Calibration (Minimum 5 stds.)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5A
	%RSD < 30%	(EcoChem PJ, see TM-06) J(+) if %RSD > 30%	5A
Continuing Calibration (Prior to each 12 hr. shift)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5B
	%D <25%	(EcoChem PJ, see TM-06) If > +/-90%: J+/R- If -90% to -26%: J+ (high bias) If 26% to 90%: J+/UJ- (low bias)	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample (+) result is less than CRQL and less than appropriate 5X or 10X rule (raise sample value to CRQL)	7
		U(+) if sample (+) result is greater than or equal to CRQL and less than appropriate 5X and 10X rule (at reported sample value)	7
	No TICs present	R(+) TICs using 10X rule	7
Field Blanks (Not Required)	No results > CRQL	Apply 5X/10X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One per matrix per batch Use method acceptance criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One per matrix per batch Use method acceptance criteria	J(+) in parent sample if RPD > CL	9
LCS CLP low conc. H2O only	One per lab batch Within method control limits	J(+) assoc. cmpd if > UCL J(+)/R(-) assoc. cmpd if < LCL J(+)/R(-) all cmpds if half are < LCL	10
LCS regular SVOA (H2O & solid)	One per lab batch Lab or method control limits	J(+) if %R > UCL J(+)/UJ(-) if %R <LCL J(+)/R(-) if %R < 10% (EcoChem PJ)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	Minimum of 3 acid and 3 base/neutral compounds Use method acceptance criteria	Do not qualify if only 1 acid and/or 1 B/N surrogate is out unless <10% J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) if %R < 10%	13
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	J(+) if > 200% J(+)/UJ(-) if < 50% J(+)/R(-) if < 25% RT>30 seconds, narrate and Notify PM	19
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NJ the TIC unless: R(+) common laboratory contaminants See Technical Director for ID issues	4
Quantitation/ Identification	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	See Technical Director if outliers	14 21 (false +)

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EcoChem Validation Guidelines for Pesticides/PCBs by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Method 8081/8082)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (EcoChem PJ)	1
Resolution Check	Beginning of ICAL Sequence Within RTW Resolution >90%	Narrate (Use Professional Judgement to qualify)	14
Instrument Performance (Breakdown)	DDT Breakdown: < 20% Endrin Breakdown: <20% Combined Breakdown: <30% Compounds within RTW	J(+) DDT NJ(+) DDD and/or DDE R(-) DDT - If (+) for either DDE or DDD J(+) Endrin NJ(+) EK and/or EA R(-) Endrin - If (+) for either EK or EA	5A
Retention Times	Surrogates: TCX (+/- 0.05); DCB (+/- 0.10) Target compounds: elute before heptachlor epoxide (+/- 0.05) elute after heptachlor epoxide (+/- 0.07)	NJ(+)/R(-) results for analytes with RT shifts For full DV, use PJ based on examination of raw data	5B
Initial Calibration	Pesticides: Low=CRQL, Mid=4X, High=16X Multiresponse - one point Calibration %RSD<20% %RSD<30% for surr; two comp. may exceed if <30% Resolution in Mix A and Mix B >90%	J(+)/UJ(-)	5A
Continuing Calibration	Alternating PEM standard and INDA/INDB standards every 12 hours (each preceeded by an inst. Blank) %D < 25% Resolution >90% in IND mixes; 100% for PEM	J(+)/UJ(-) J(+)R(-) if %D > 90% PJ for resolution	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample result is < CRQL and < 5X rule (raise sample value to CRQL) U(+) if sample result is > or equal to CRQL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > 1/2 CRQL	Same as Method Blank	7
Field Blanks	Not addressed by NFG No results > CRQL	Apply 5X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Pesticides/PCBs by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Method 8081/8082)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) in parent sample if RPD > CL	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	TCX and DCB added to every sample %R = 30-150%	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Quantitated using ICAL calibration factor (CF) RPD between columns <40%	J(+) if RPD = 40 - 60% NJ(+) if RPD >60% EcoChem PJ - See TM-08	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Sample Clean-up	GPC required for soil samples Florisil required for all samples Sulfur is optional Clean-up standard check %R within CLP limits	J(+)/UJ(-) if %R < LCL J(+) if %R > UCL	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate (Qualifiy if required by project QAPP)	9

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EcoChem Validation Guidelines for Metals Analysis by ICP
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration Tissues: Frozen	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	180 days from date sampled Frozen tissues - HT extended to 2 years	J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + minimum 1 standard If more than 1 standard, r > 0.995	J(+)/UJ(-) if r < 0.995 (multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±10% of true value	J(+)/UJ(-) if %R 75-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run %R within ±10% of true value	J(+)/UJ(-) if %R = 75-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B

Initial and Continuing Calibration Blank (ICB/CCB)	After each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		(Refer to TM-02 for additional information)
			7

Reporting Limit Standard	2x RL analyzed beginning of run Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Sb, Pb, Tl)	R(-)/J(+) < 2x RL if %R <50% (< 30% Sb, Pb, Tl) J(+) < 2x RL, UJ(-) if %R 50-69% (30-49% Sb, Pb,Tl) J(+) < 2x RL if %R 130-180% (150-200% Sb, Pb, Tl) R(+) < 2x RL if %R > 180% (200% Sb, Pb, Tl)	14
Interference Check Samples (ICSA/ICSAB)	ICSAB %R 80 - 120% for all spiked elements | ICSA | < MDL for all unspiked elements except: K, Na	For samples with Al, Ca, Fe, or Mg > ICS levels R(+/-) if %R < 50% J(+) if %R >120% J(+)/UJ(-) if %R= 50 to 79% Use Professional Judgment for ICSA to determine if bias is present see TM-09 for additional details	17
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7
Laboratory Control Sample (LCS)	One per matrix per batch		10
	Blank Spike: %R within 80-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	

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EcoChem Validation Guidelines for Metals Analysis by ICP
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Matrix Spikes	One per matrix per batch 75-125% for samples less than 4x spike level	J(+) if %R > 125% J(+)/UJ(-) if %R < 75% J(+)/R(-) if %R < 30% or J(+)/UJ(-) if Post Spike %R 75-125% Qualify all samples in batch	8
Post-digestion Spike	If Matrix Spike is outside 75-125%, spike at twice the sample conc.	No qualifiers assigned based on this element	
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples >RL and < 5x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL (2x RL for solids) qualify all samples in batch	9
Serial Dilution	5x dilution one per matrix %D < 10% for original sample conc. > 50x MDL	J(+)/UJ(-) if %D >10% qualify all samples in batch	16
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff < RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must fall within range	J values over range	20

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EcoChem Validation Guidelines for Metals Analysis by ICP-MS
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	180 days from date sampled Frozen tissues - HT extended to 2 years	J(+)/UJ(-) if holding time exceeded	1
Tune	Prior to ICAL monitoring compounds analyzed 5 times wih Std Dev. ≤ 5% mass calibration <0.1 amu from True Value Resolution < 0.9 AMU @ 10% peak height or <0.75 amu @ 5% peak height	Use Professional Judgment to evaluate tune J(+)/UJ(-) if tune criteria not met	5A
Initial Calibration	Blank + minimum 1 standard If more than 1 standard, r>0.995	J(+)/UJ(-) if r<0.995 (for multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±10% of true value	J(+)/UJ(-) if %R 75-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run ±10% of true value	J(+)/UJ(-) if %R = 75-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B

Initial and Continuing Calibration Blanks (ICB/CCB)	After each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Reporting Limit Standard (CRI)	2x RL analyzed beginning of run Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Co,Mn, Zn)	R(-),(+) < 2x RL if %R < 50% (< 30% Co,Mn, Zn) J(+) < 2x RL, UJ(-) if %R 50-69% (30%-49% Co,Mn, Zn) J(+) < 2x RL if %R 130%-180% (150%-200% Co,Mn, Zn) R(+) < 2x RL if %R > 180% (200% Co, Mn, Zn)	14
Interference Check Samples (ICSA/ICSAB)	Required by SW 6020, but not 200.8 ICSAB %R 80% - 120% for all spiked elements | ICSA | < IDL (MDL) for all unspiked elements	For samples with Al, Ca, Fe, or Mg > ICS levels R(+/-) if %R < 50% J(+) if %R >120% J(+)/UJ(-) if %R = 50% to 79% Use Professional Judgment for ICSA to determine if bias is present see TM-09 for additional details	17
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7

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EcoChem Validation Guidelines for Metals Analysis by ICP-MS
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Laboratory Control Sample (LCS)	One per matrix per batch Blank Spike: %R within 80%-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	
Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	One per matrix per batch 75-125% for samples where results do not exceed 4x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30% or J(+)/UJ(-) if Post Spike %R 75%-125% Qualify all samples in batch	8
Post-digestion Spike	If Matrix Spike is outside 75-125%, Spike parent sample at 2x the sample conc.	No qualifiers assigned based on this element	
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples > RL and < 5 x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9
Serial Dilution	5x dilution one per matrix %D < 10% for original sample values > 50x MDL	J(+)/UJ(-) if %D >10% All samples in batch	16
Internal Standards	Every sample SW6020: 60%-125% of cal blank IS 200.8: 30%-120% of cal blank IS	J (+)/UJ (-) all analytes associated with IS outlier	19
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < AL in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff < RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must fall within range	J values over range	20

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EcoChem Validation Guidelines for Mercury Analysis by CVAA
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	28 days from date sampled Frozen tissues: HT extended to 6 months	J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + 4 standards, one at RL r > 0.995	J(+)/UJ(-) if r<0.995	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±20% of true value	J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135% R(+/-) if %R < 65% R(+) if %R > 135%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run %R within ±20% of true value	J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135% R(+/-) if %R < 65% R(+) if %R > 135%	5B

Initial and Continuing Calibration Blanks (ICB/CCB)	after each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Reporting Limit Standard (CRA)	conc at RL - analyzed beginning of run %R = 70-130%	R(-),(+)<2xRL if %R <50% J(+)<2x RL, UJ(-) if %R 50-69% J(+) <2x RL if %R 130-180% R(+)<2x RL if %R>180%	14
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7
Laboratory Control Sample (LCS)	One per matrix per batch Blank Spike: %R within 80-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	
Matrix Spike/Matrix Spike Duplicate (MS/MSD)	One per matrix per batch 5% frequency 75-125% for samples less than 4x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30% all samples in batch	8
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples > RL and < 5x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Mercury Analysis by CVAA
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5x RL: Water: Diff<RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must be less than 110% of high standard	J values over range	20

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EcoChem Validation Guidelines for Conventional Chemistry Analysis (Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler Temperature 4°C ±2°C Preservation: Method Specific	Use Professional Judgment to qualify based to qualify for coole temp outliers J(+)/UJ(-) if preservation requirements not met	1
Holding Time	Method Specific	Professional Judgment J(+)/UJ(-) if holding time exceeded J(+)/R(-) if HT exceeded by > 3X	1
Initial Calibration	Method specific r>0.995	Use professional judgment J(+)/UJ(-) for r < 0.995	5A
Initial Calibration Verification (ICV)	Where applicable to method Independent source analyzed immediately after calibration %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5A
Continuing Cal Verification (CCV)	Where applicable to method Every ten samples, immed. following ICV/ICB and end of run %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5B

Initial and Continuing Cal Blanks (ICB/CCB)	Where applicable to method
	After each ICV and CCV every ten samples and end of run
	| blank| < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Method Blank	One per matrix per batch
	(not to exceed 20 samples)
	blank < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blk value, U(+) results < action level
		For (-) blk value, J(+)/UJ(-) results < action level
			7

Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Matrix Spike	One per matrix per batch; 5% frequency 75-125% for samples less than 4 x spike level	J(+) if %R > 125% or < 75% UJ(-) if %R = 30-74% R(+/-) results < IDL if %R < 30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff <RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Conventional Chemistry Analysis
(Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5X RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff<RL Solid: Diff < 2X RL	J(+)/UJ(-) in parent samples only	9

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EcoChem, INC.
Environmental Data Quality

DATA VALIDATION REPORT

East Waterway Subsurface Sediment Coring Tier II

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EcoChem Project: C22018-7

October 7, 2010

Approved for Release:

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PROJECT NARRATIVE

Basis for the Data Validation

This report summarizes the results of summary (EPA Stage 2B) and full (EPA Stage 3 and EPA Stage 4) validation performed on sediment and quality control sample data for the East Waterway Subsurface Sediment Coring Project. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Semivolatile Organic Compounds	EPA 8270D	Mark Brindle	Chris Ransom
Select Semivolatile Organic Compounds	EPA 8270D-SIM		
Polycyclic Aromatic Hydrocarbons			
Polychlorinated Biphenyls	EPA 8082		
Metals	EPA 6010B, 7471A, 200.8	Jeremy Maute	
Total Organic Carbon, Total Solids	Plumb, 1981, EPA 160.3		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; the quality assurance project plan (QAPP) from the *Subsurface Sediment Sampling for Chemical Analyses in the East Waterway* (January 2010); *National Functional Guidelines for Inorganic Data Review* (USEPA 1994 & 2004); and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Port of Seattle East Waterway
Subsurface Sediments - Tier II

SDG	Sample ID	Lab ID	SVOC	SVOC-SIM	PAH	PCB	Metals	Mercury	Conventionals
RB27	EW10-SC04-4.0-4.5	RB27A			✓				✓
	EW10-SC06-4-6	RB27B						✓	✓
	EW10-SC06-6-7.4	RB27C						✓	✓
	EW10-SC06-7.4-10	RB27D						✓	✓
	EW10-SC07B-4-6	RB27E				✓			✓
	EW10-SC08-6-8	RB27F	✓	✓		✓	✓	✓	✓
	EW10-SC08-8-9.4	RB27G						✓	✓
	EW10-SC08-9.4-11	RB27H						✓	✓
	EW10-SC09-6-7.2	RB27I	✓	✓		✓		✓	✓
	EW10-SC09-7.2-9.2	RB27J						✓	✓
	EW10-SC09-9.2-11.2	RB27K						✓	✓
	EW10-SC10-4-6	RB27L				✓			✓
	EW10-SC10-6-8	RB27M				✓			✓
	EW10-SC11-4-6	RB27N	✓	✓		✓	✓	✓	✓
	EW10-SC11-6-8	RB27O						✓	✓
	EW10-SC12-5-7	RB27P	✓	✓		✓		✓	✓
	EW10-SC12-7-9	RB27Q						✓	✓
	EW10-SC14-5.3-7.3	RB27R				✓			✓
	EW10-SC16-4-6	RB27S						✓	✓
	EW10-SC16-6-8.2	RB27T						✓	✓
	EW10-SC17-6-8	RB27U				✓		✓	
	EW10-SC17-8-10	RB27V						✓	
	EW10-SC17-11.5-13	RB27W						✓	
	EW10-SC18-4-6	RB27X	✓	✓		✓		✓	
	EW10-SC18-6-8	RB27Y				✓		✓	
RB28	EW10-SC19-4-6	RB28A	✓	✓		✓			✓
	EW10-SC21-5.3-7.8	RB28B	✓	✓		✓		✓	✓
	EW10-SC21-7.8-10	RB28C						✓	✓
	EW10-SC23-7-9	RB28D						✓	✓
	EW10-SC23-9-11	RB28E	✓	✓		✓	✓	✓	✓
	EW10-SC23-11-12.9	RB28F						✓	✓
	EW10-SC24-6-8	RB28G	✓	✓		✓		✓	✓
	EW10-SC24-8-10	RB28H						✓	✓
	EW10-sc27-6-7.7	RB28I	✓	✓		✓	✓	✓	✓
	EW10-SC27-7.7-10	RB28J						✓	✓
	EW10-SC27-10-12.5	RB28K						✓	✓
	EW10-SC28-6.2-8	RB28L	✓	✓		✓		✓	✓
	EW10-SC28-8-10	RB28M						✓	✓
	EW10-SC28-10-11.7	RB28N						✓	✓
	EW10-SC29-9.7-11.7	RB28O	✓	✓		✓	✓	✓	✓
	EW10-SC30-4.3-6	RB28P				✓		✓	✓
	EW10-SC30-6-8	RB28Q						✓	✓
	EW10-SC32-8.9-10.9	RB28R	✓	✓		✓	✓	✓	✓
	EW10-SC32-10.9-12.9	RB28S						✓	✓
	EW10-SC33-5.8-8	RB28T	✓	✓		✓	✓	✓	✓
	EW10-SC33-8-9.8	RB28U						✓	

Sample Index
Port of Seattle East Waterway
Subsurface Sediments - Tier II

SDG	Sample ID	Lab ID	SVOC	SVOC-SIM	PAH	PCB	Metals	Mercury	Conventionals
RB29	EW10-SC40-4-6.8	RB29A				✓		✓	✓
	EW10-SC40-6.8-8	RB29B						✓	✓
	EW10-sc42-4-5.5	RB29C				✓		✓	✓
	EW10-SC42-5.5-8	RB29D						✓	✓
	EW10-SC42-8-10	RB29E						✓	✓
	EW10-SC43-4-6	RB29F				✓			✓
	EW10-SC43-6-8	RB29G				✓			✓
	EW10-SC47-3.6-6	RB29H				✓		✓	✓
	EW10-SC47-6-8	RB29I						✓	✓
	EW10-SC48-4.7-6	RB29J				✓	✓	✓	✓
	EW10-SC48-6-8	RB29K						✓	✓
	EW10-SC52-4-6	RB29L				✓			✓
	EW10-SC53-5-7	RB29M				✓			✓
	EW10-SC54-8-9.2	RB29N	✓	✓		✓	✓	✓	✓
	EW10-SC58-6-8	RB29O			✓				✓
	EW10-SC201-4-6	RB29P	✓	✓		✓			✓
	EW10-SC203-4.3-6	RB29Q				✓		✓	✓
	EW10-SC203-6-8	RB29R						✓	✓
	EW10-SC204-8.9-10.9	RB29S	✓	✓		✓	✓	✓	✓
	EW10-SC204-10.9-12.9	RB29T						✓	✓
RB47	EW10-SC17-6-8	RB47A							✓
	EW10-SC17-8-10	RB47B							✓
	EW10-SC17-11.5-13	RB47C							✓
	EW10-SC18-4-6	RB47D							✓
	EW10-SC18-6-8	RB47E							✓
	EW10-SC33-8-9.8	RB47F							✓

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring – Tier II
Semivolatile Compounds by Method 8270D

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RB27/RB28/RB29	19 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

SDG RB28: The field ID for sample RB28I in the EDD did not match the hard copy. According to the chain-of-custody record, the sample ID should be EW10-SC27-6-8. The sample ID in the EDD is EW10-sc27-6-7.7. The sample ID change was verified with Windward. No further action was taken.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times	1	Reference Material
	GC/MS Instrument Performance	1	Field Duplicates
	Initial Calibration (ICAL)		Target Analyte List
2	Continuing Calibration (CCAL)		Internal Standards
	Laboratory Blanks		Reporting Limits
	Surrogate Compounds	2	Reported Results
	Laboratory Control Samples (LCS)		Compound Identification
	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)	1	Calculation Verification
	Internal Standards		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Continuing Calibration

The continuing calibration verification (CCAL) percent difference (%D) values were within the control limits of ±25%, with the exceptions noted below. For outliers indicative of an increase in instrument response, associated positive results were estimated (J-5B) to indicate a potential high bias. For outliers indicative of a decrease in response, results in the associated samples were estimated (J/UJ-5B) to indicate a potential low bias. The following outliers resulted in qualification of data:

CCAL 6/28/10: 1-methylnaphthalene (26.4%) – low bias

CCAL 6/29/10: 1-methylnaphthalene (30.2%) – low bias

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. As the SQ-1 values are reference values only and are not certified, no action was taken based on the recovery value outliers.

Field Duplicates

The data for two sets of field duplicates were submitted: EW10-SC19-4-6 & EW10-SC201-4-6 and EW10-SC32-8.9-10.9 & EW10-S204-8.9-10.9. For results greater than five times the reporting limit (RL), all relative percent difference (RPD) values were less than the control limit of 50%. For results less than five times the RL, the difference between the sample and duplicate was less than two times the RL. Field precision was acceptable.

Reported Results

Fluoranthene was greater than the calibration range in Sample EW10-SC23-9-11. The sample was re-analyzed at dilution; both sets of data were reported. The fluoranthene result from the original analysis was rejected (R-20). Results for all other analytes from the dilution were rejected (R-11).

Phenanthrene was greater than the calibration range in Sample EW10-SC29-9.7-11.7. The sample was re-analyzed at dilution; both sets of data were reported. The phenanthrene result from the original analysis was rejected (R-20). Results for all other analytes from the dilution were rejected (R-11).

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample, and matrix spike/matrix spike duplicate (MS/MSD) recoveries. Precision was also acceptable as demonstrated by the MS/MSD and field duplicate RPD values.

Data were estimated due to continuing calibration outliers. Data were rejected in order to indicate which results should not be used from multiple reported analyses. A usable result remains for all analytes for all samples; completeness was not affected.

Rejected data should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring – Tier II
Semivolatile Compounds by EPA Method 8270D-SIM

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
RB27	5 Sediment	Stage 4
RB28/29	12 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

SDG RB28: The field ID for sample RB28I in the EDD did not match the hard copy. According to the chain-of-custody record, the sample ID should be EW10-SC27-6-8. The sample ID in the EDD is EW10-sc27-6-7.7. The sample ID change was verified with Windward. No further action was taken.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Preservation and Holding Times	1	Reference Material
	GC/MS Instrument Performance	2	Internal Standards
	Initial Calibration (ICAL)	1	Field Duplicates
1	Continuing Calibration (CCAL)		Target Analyte List
	Laboratory Blanks	2	Reporting Limits
	Surrogate Compounds	2	Reported Results
2	Laboratory Control Samples (LCS/LCSD)		Compound Identification
1	Matrix Spike/Matrix Spike Duplicate (MS/MSD)	1	Calculation Verification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Continuing Calibration

SDGs RB28 and RB29: The percent difference (%D) value for benzyl alcohol was outside the ±25% control limit (at -27%) and indicative of high bias. This analyte was not detected in the associated samples; therefore no qualification of data was necessary.

Laboratory Control Samples

SDGs RB28 and RB29: The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries for benzyl alcohol were less 10% for the LCS/LCSD extracted on 06/24/10. This analyte was not detected in the associated samples; reporting limits were rejected (R-10) due to the extreme low bias.

Matrix Spike/Matrix Spike Duplicates

SDGs RB28 and RB29: Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed using Sample EW10-SC33-5.8-8. The MSD recovery for benzyl alcohol was less than the laboratory lower control limit of 10%. The corresponding MS recovery was acceptable; therefore no action was taken.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. As the SQ-1 values are reference values only and are not certified, no action was taken based on the recovery value outliers.

Internal Standards

The recoveries for the internal standards chrysene-d12, phenanthrene-d10, and pyrene-d12 were greater than the upper control limit in several samples. There were no target analytes associated with pyrene-d12. There were no positive results for compounds associated with phenanthrene-d10; therefore no qualification of data was necessary for the potential high bias. Butylbenzylphthalate was the only target analyte associated with chrysene-d12. The following results were qualified based on internal standard outliers:

SDG RB27: The butylbenzylphthalate results for samples EW10SC08-6-8, EW10-SC09-6-7.2 and EW10-SC11-4-6 were estimated (J-19) to indicate a potential high bias.

SDGs RB28 and RB29: The butylbenzylphthalate result for Sample EW10-SC27-6-8 was estimated (J-19) to indicate a potential high bias.

Field Duplicates

SDGs RB28 and RB29: The data for two sets of field duplicates were submitted: EW10-SC19-4-6 & EW10-SC201-4-6 and EW10-SC32-8.9-10.9 & EW10-S204-8.9-10.9. There were no positive results for any of these samples. Field precision was acceptable.

Reporting Limits

SDG RB27: The n-nitrosodiphenylamine results for samples EW10SC08-6-8, EW10-SC09-6-7.2 and EW10-SC11-4-6, and the 1,2,4-trichlorobenzene results for samples EW10-SC09-6-7.2 and EW10-SC27-6-7.7 were flagged "Y" by the laboratory to indicate that the reporting limits were elevated due to matrix interferences. These "Y" flagged results were qualified as not-detected (U-22) to indicate that the results are not-detected at an elevated reporting limit.

Reported Results

SDG RB27: Samples EW10SC08-6-8, EW10-SC09-6-7.2 and EW10-SC11-4-6 were re-analyzed at dilution due to internal standard outliers in the original analyses. In order to achieve the lowest possible reporting limits, the results from the original analyses should be used. Results for the dilutions were rejected (R-11).

SDG RB28: Samples EW10-SC27-6-8 and EW10-SC24-6-8 were re-analyzed at dilution due to internal standard outliers in the original analyses. In order to achieve the lowest possible reporting limits, the results from the original analyses should be used. Results for the dilutions were rejected (R-11).

Calculation Verification

SDG RB27: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. With the exceptions noted above, accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recoveries and precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD and field duplicate RPD values.

Reporting limits were elevated due to matrix interferences. Data were estimated due to internal standard outliers. Data were rejected based on LCS/LCSD recoveries that were less than 10% and to indicate which results should not be used from multiple reported analyses.

Rejected data should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring – Tier II
Polycyclic Aromatic Hydrocarbons by Method 8270C-SIM

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc., Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
RB27/RB29	2 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times		Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	GC/MS Instrument Performance		Internal Standards
	Initial Calibration (ICAL)		Target Analyte List
	Continuing Calibration (CCAL)		Reporting Limits
	Laboratory Blanks	2	Compound Identification
	Surrogate Compounds		Reported Results
	Laboratory Control Samples (LCS/LCSD)	1	Calculation Verification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The validation guidance documents state that the cooler temperatures should be within an advisory temperature range of 0°C to 6°C. The laboratory received sample coolers with temperatures greater than the upper control limit, ranging to 9.3°C. There was insufficient time for the samples and coolers to reach the desired temperature as the laboratory received the samples within two hours of collection. These temperature outliers did not impact data quality and no qualifiers were assigned.

Compound Identification

The laboratory was unable to distinguish between benzo(b)fluoranthene and benzo(k)fluoranthene due to the closeness of the retention times for each compound. The results for these two compounds were reported as total benzofluoranthenes on the summary forms. At the request of Windward, the total benzofluoranthene result was split and reported equally as benzo(b)fluoranthene and benzo(k)fluoranthene in the EDD. Since it is not possible to determine whether only one or both analytes were present, the positive results for these analytes were tentatively identified and estimated (NJ-14). If only the total benzofluoranthene results are used, then data are acceptable without qualification.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, matrix spike/matrix spike duplicate (MS/MSD), and laboratory control sample recoveries. Precision was also acceptable as demonstrated by the relative percent difference values for the MS/MSD analyses.

Data were estimated with tentative identification due to the co-elution of two isomers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring – Tier II
PCB Aroclors by EPA Method 8082

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc., Tukwila, Washington. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RB27	11 Sediment	Stage 2B
RB28	10 Sediment	Stage 2B
RB29	12 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

SDG RB28: The field ID for sample RB28I in the EDD did not match the hard copy. According to the chain-of-custody record, the sample ID should be EW10-SC27-6-8. The sample ID in the EDD is EW10-sc27-6-7.7. The sample ID change was verified with Windward. No further action was taken.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times	1	Field Duplicates
	Initial Calibration (ICAL)		Target Analyte List
	Continuing Calibration (CCAL)		Internal Standards
	Laboratory Blanks	1	Reporting Limits
1	Surrogate Compounds	2	Reported Results
	Laboratory Control Samples (LCS)		Compound Identification
	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	1	Calculation Verification (full validation only)
1	Reference Material		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Surrogate Compounds

SDG RB29: The recovery for the surrogate compound tetrachlorometaxylene (TCMX) was less than the lower control limit of 46% in Sample EW10-SC48-4.7-6. No action was taken as the recovery for the other surrogate, decachlorobiphenyl (DCBP) was acceptable.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. As the SQ-1 values are reference values only and are not certified, no action was taken based on the recovery value outliers.

Field Duplicates

Three sets of field duplicates were submitted:

Sample ID	Field Duplicate ID
EW10-SC19-4-6	EW10-SC201-4-6
EW10-SC30-4.3-6	EW10-SC203-4.3-6
EW10-SC32-8.9-10.9	EW10-SC204-8.9-10.9

All relative percent difference (RPD) values were less than the control limit of 50%; field precision was acceptable.

Reporting Limits

All samples were analyzed at dilution (5x) due to matrix interferences; reporting limits were elevated accordingly.

Reported Results

SDG RB27: For Sample EW10-SC17-6-8, the chromatograms for Aroclor 1248 and Aroclor 1254 indicated non-target background interferences. These results were "Y" flagged by the laboratory. The "Y" flagged results were qualified as not detected (U-22) to indicate that the analyte was not-detected at an elevated reporting limit.

SDG RB29: For Samples EW10-SC42-4.5-5 and EW10-SC48-4.7-6, the chromatograms for Aroclor 1248 and Aroclor 1254 indicated non-target background interferences. These "Y" flagged results were qualified as not detected (U-22) to indicate that the analyte was not-detected at an elevated reporting limit.

Calculation Verification

SDG RB29: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample, and matrix spike/matrix spike duplicate (MS/MSD) percent recovery values. Precision was also acceptable as demonstrated by the MS/MSD and field duplicate RPD values.

Reporting limits were elevated based on matrix interferences.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring – Tier II
Metals Analyses by EPA 200.8 and 6010B, Mercury by 7471A

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RB27	20 Sediment	Stage 2B
RB28	20 Sediment	Stage 3
RB29	14 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. The following discrepancy was noted:

SDG RB28: The field ID for sample RB28I in the EDD did not match the hard copy. According to the chain-of-custody record, the sample ID should be EW10-SC27-6-8. The sample ID in the EDD is EW10-sc27-6-7.7. The sample ID change was verified with Windward. No further action was taken.

III. TECHNICAL DATA VALIDATION

The QC requirements for review are listed below.

1	Sample Preservation and Holding Times	1	Standard Reference Materials
	Initial Calibrations (ICAL)	2	Matrix Spike (MS)
	ICP-MS Tunes		Laboratory Duplicates
	Initial and Continuing Calibration Verification (ICV/CCV)	1	Field Duplicates
	Contract Required Detection Limit Standards		ICP Interference Check Samples
	Laboratory Blanks		ICP-MS Internal Standards
1	Field Blanks		Reported Results
	Laboratory Control Samples	1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Field Blanks

No field blanks were submitted.

Standard Reference Materials

SDG RB27: The reference material ERA D044540 was analyzed. All results were within the manufacturer's performance acceptance limits.

SDG RB28 and RB29: The reference material ERA D053540 was analyzed. All results were within the manufacturer's performance acceptance limits.

Matrix Spikes

Matrix spike samples (MS) were analyzed at the proper frequency. The percent recovery (%R) values were within the control limits of 75-125%, with the exceptions noted below. For %R values less than the lower control limit, the associated positive results and non-detects were qualified as estimated (J/UJ-8) to indicate a possible low bias. The post digestion spikes were also evaluated. In each case the post spike recovery was within 75%-125%. The associated results were estimated (J/UJ-8). The samples used for the MS analyses and the recovery outliers that resulted in qualification of data are listed below:

SDG RB28: QC Sample EW10-SC23-9-11: antimony – (J/UJ-8) low bias, post spike acceptable

SDG RB29: QC Sample EW10-SC54-8-9.2: antimony – (J/UJ-8) low bias, post spike acceptable

Field Duplicates

No field duplicates were submitted.

Calculation Verification

SDG RB28: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the laboratory control sample, standard reference material, and matrix spike percent recovery values. The laboratory duplicate relative percent difference (RPD) values indicated acceptable precision.

Data were qualified based on MS %R outliers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring – Tier II
Conventional Analyses

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RB27	20 Sediment	Stage 2B
RB28	21 Sediment	Stage 3
RB29	20 Sediment	Stage 2B
RB47	6 Sediment	Stage 2B

The analytical tests that were performed are summarized below:

Parameter	Method
Total Solids	EPA 160.3
Total Organic Carbon (TOC)	Plumb, 1981

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all necessary deliverables for a summary validation. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. The following discrepancy was noted:

SDG RB28: The field ID for RB28I in the EDD did not match the hard copy. According to the chain-of-custody record, the sample ID should be EW10-SC27-6-8. The sample ID in the EDD is EW10-sc27-6-7.7. The sample ID change was verified with Windward. No further action was taken.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times		Matrix Spike (MS)
	Initial Calibration		Laboratory Replicates
	Calibration Verification	1	Field Duplicates
	Laboratory Blanks		Reporting Limits
1	Field Blanks		Reported Results
	Laboratory Control Samples	1	Calculation Verification (full validation only)
1	Standard Reference Materials		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Field Blanks

No field blanks were submitted.

Standard Reference Materials

The standard reference material NIST 8704 was analyzed for TOC. All recoveries were within the control limits.

Field Duplicates

No field duplicates were submitted.

Calculation Verification

SDG RB28: Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the laboratory control sample, standard reference material, and matrix spike percent recovery values. Precision was also acceptable as demonstrated by the laboratory replicate percent relative standard deviation (%RSD) and relative percent difference (RPD) values.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives
22	Elevated Detection Limit Due to Interference (i.e., laboratory, chemical and/or matrix)

EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	Water: J(+)/UJ(-) if ext. > 7 and < 21 days J(+)/R(-) if ext > 21 days (EcoChem PJ) Solids/Wastes: J(+)/UJ(-) if ext. > 14 and < 42 days J(+)/R(-) if ext. > 42 days (EcoChem PJ) J(+)/UJ(-) if analysis >40 days	1
Tuning	DFTPP Beginning of each 12 hour period Method acceptance criteria	R(+/-) all analytes in all samples associated with the tune	5A
Initial Calibration (Minimum 5 stds.)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5A
	%RSD < 30%	(EcoChem PJ, see TM-06) J(+) if %RSD > 30%	5A
Continuing Calibration (Prior to each 12 hr. shift)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5B
	%D <25%	(EcoChem PJ, see TM-06) If > +/-90%: J+/R- If -90% to -26%: J+ (high bias) If 26% to 90%: J+/UJ- (low bias)	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample (+) result is less than CRQL and less than appropriate 5X or 10X rule (raise sample value to CRQL)	7
		U(+) if sample (+) result is greater than or equal to CRQL and less than appropriate 5X and 10X rule (at reported sample value)	7
	No TICs present	R(+) TICs using 10X rule	7
Field Blanks (Not Required)	No results > CRQL	Apply 5X/10X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One per matrix per batch Use method acceptance criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One per matrix per batch Use method acceptance criteria	J(+) in parent sample if RPD > CL	9
LCS low conc. H2O SVOA	One per lab batch Within method control limits	J(+) assoc. cmpd if > UCL J(+)/R(-) assoc. cmpd if < LCL J(+)/R(-) all cmpds if half are < LCL	10
LCS regular SVOA (H2O & solid)	One per lab batch Lab or method control limits	J(+) if %R > UCL J(+)/UJ(-) if %R <LCL J(+)/R(-) if %R < 10% (EcoChem PJ)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	Minimum of 3 acid and 3 base/neutral compounds Use method acceptance criteria	Do not qualify if only 1 acid and/or 1 B/N surrogate is out unless <10% J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) if %R < 10%	13
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	J(+) if > 200% J(+)/UJ(-) if < 50% J(+)/R(-) if < 25% RT>30 seconds, narrate and Notify PM	19
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NJ the TIC unless: R(+) common laboratory contaminants See Technical Director for ID issues	4
Quantitation/ Identification	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	See Technical Director if outliers	14 21 (false +)

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EcoChem Validation Guidelines for Pesticides, PCBs, Herbicides, and Phenol by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Methods 8081/8082/8041/8151)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (EcoChem PJ)	1
Resolution Check	Beginning of ICAL Sequence Within RTW Resolution >90%	Narrate (Use Professional Judgement to qualify)	14
Instrument Performance (Breakdown)	DDT Breakdown: < 20% Endrin Breakdown: <20% Combined Breakdown: <30% Compounds within RTW	J(+) DDT NJ(+) DDD and/or DDE R(-) DDT - If (+) for either DDE or DDD J(+) Endrin NJ(+) EK and/or EA R(-) Endrin - If (+) for either EK or EA	5A
Retention Times	Surrogates: TCX (+/- 0.05); DCB (+/- 0.10) Target compounds: elute before heptachlor epoxide (+/- 0.05) elute after heptachlor epoxide (+/- 0.07)	NJ(+)/R(-) results for analytes with RT shifts For full DV, use PJ based on examination of raw data	5B
Initial Calibration	Pesticides: Low=CRQL, Mid=4X, High=16X Multiresponse - one point Calibration %RSD<20% %RSD<30% for surr; two comp. may exceed if <30% Resolution in Mix A and Mix B >90%	J(+)/UJ(-)	5A
Continuing Calibration	Alternating PEM standard and INDA/INDB standards every 12 hours (each preceeded by an inst. Blank) %D < 25% Resolution >90% in IND mixes; 100% for PEM	J(+)/UJ(-) J(+)R(-) if %D > 90% PJ for resolution	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample result is < CRQL and < 5X rule (raise sample value to CRQL) U(+) if sample result is > or equal to CRQL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > 1/2 CRQL	Same as Method Blank	7
Field Blanks	Not addressed by NFG No results > CRQL	Apply 5X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Pesticides, PCBs, Herbicides, and Phenol by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Methods 8081/8082/8041/8151)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) in parent sample if RPD > CL	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	TCX and DCB added to every sample %R = 30-150%	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Quantitated using ICAL calibration factor (CF) RPD between columns <40%	J(+) if RPD = 40 - 60% NJ(+) if RPD >60% EcoChem PJ - See TM-08	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Sample Clean-up	GPC required for soil samples Florisil required for all samples Sulfur is optional Clean-up standard check %R within CLP limits	J(+)/UJ(-) if %R < LCL J(+) if %R > UCL	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate (Qualifiy if required by project QAPP)	9

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EcoChem Validation Guidelines for Metals Analysis by ICP
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration Tissues: Frozen	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	180 days from date sampled Frozen tissues - HT extended to 2 years	J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + minimum 1 standard If more than 1 standard, r > 0.995	J(+)/UJ(-) if r < 0.995 (multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±10% of true value	J(+)/UJ(-) if %R 75-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run %R within ±10% of true value	J(+)/UJ(-) if %R = 75-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B

Initial and Continuing Calibration Blank (ICB/CCB)	After each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		(Refer to TM-02 for additional information)
			7

Reporting Limit Standard	2x RL analyzed beginning of run Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Sb, Pb, Tl)	R(-)/J(+) < 2x RL if %R <50% (< 30% Sb, Pb, Tl) J(+) < 2x RL, UJ(-) if %R 50-69% (30-49% Sb, Pb,Tl) J(+) < 2x RL if %R 130-180% (150-200% Sb, Pb, Tl) R(+) < 2x RL if %R > 180% (200% Sb, Pb, Tl)	14
Interference Check Samples (ICSA/ICSAB)	ICSAB %R 80 - 120% for all spiked elements | ICSA | < MDL for all unspiked elements except: K, Na	For samples with Al, Ca, Fe, or Mg > ICS levels R(+/-) if %R < 50% J(+) if %R >120% J(+)/UJ(-) if %R= 50 to 79% Use Professional Judgment for ICSA to determine if bias is present see TM-09 for additional details	17
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7
Laboratory Control Sample (LCS)	One per matrix per batch		10
	Blank Spike: %R within 80-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	

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EcoChem Validation Guidelines for Metals Analysis by ICP
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Matrix Spikes	One per matrix per batch 75-125% for samples less than 4x spike level	J(+) if %R > 125% J(+)/UJ(-) if %R < 75% J(+)/R(-) if %R < 30% or J(+)/UJ(-) if Post Spike %R 75-125% Qualify all samples in batch	8
Post-digestion Spike	If Matrix Spike is outside 75-125%, spike at twice the sample conc.	No qualifiers assigned based on this element	
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples >RL and < 5x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL (2x RL for solids) qualify all samples in batch	9
Serial Dilution	5x dilution one per matrix %D < 10% for original sample conc. > 50x MDL	J(+)/UJ(-) if %D >10% qualify all samples in batch	16
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff < RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must fall within range	J values over range	20

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EcoChem Validation Guidelines for Metals Analysis by ICP-MS
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	180 days from date sampled Frozen tissues - HT extended to 2 years	J(+)/UJ(-) if holding time exceeded	1
Tune	Prior to ICAL monitoring compounds analyzed 5 times wih Std Dev. ≤ 5% mass calibration <0.1 amu from True Value Resolution < 0.9 AMU @ 10% peak height or <0.75 amu @ 5% peak height	Use Professional Judgment to evaluate tune J(+)/UJ(-) if tune criteria not met	5A
Initial Calibration	Blank + minimum 1 standard If more than 1 standard, r>0.995	J(+)/UJ(-) if r<0.995 (for multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±10% of true value	J(+)/UJ(-) if %R 75-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run ±10% of true value	J(+)/UJ(-) if %R = 75-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B

Initial and Continuing Calibration Blanks (ICB/CCB)	After each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Reporting Limit Standard (CRI)	2x RL analyzed beginning of run Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Co,Mn, Zn)	R(-),(+) < 2x RL if %R < 50% (< 30% Co,Mn, Zn) J(+) < 2x RL, UJ(-) if %R 50-69% (30%-49% Co,Mn, Zn) J(+) < 2x RL if %R 130%-180% (150%-200% Co,Mn, Zn) R(+) < 2x RL if %R > 180% (200% Co, Mn, Zn)	14
Interference Check Samples (ICSA/ICSAB)	Required by SW 6020, but not 200.8 ICSAB %R 80% - 120% for all spiked elements | ICSA | < IDL (MDL) for all unspiked elements	For samples with Al, Ca, Fe, or Mg > ICS levels R(+/-) if %R < 50% J(+) if %R >120% J(+)/UJ(-) if %R = 50% to 79% Use Professional Judgment for ICSA to determine if bias is present see TM-09 for additional details	17
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7

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EcoChem Validation Guidelines for Metals Analysis by ICP-MS
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Laboratory Control Sample (LCS)	One per matrix per batch Blank Spike: %R within 80%-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	
Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	One per matrix per batch 75-125% for samples where results do not exceed 4x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30% or J(+)/UJ(-) if Post Spike %R 75%-125% Qualify all samples in batch	8
Post-digestion Spike	If Matrix Spike is outside 75-125%, Spike parent sample at 2x the sample conc.	No qualifiers assigned based on this element	
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples > RL and < 5 x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9
Serial Dilution	5x dilution one per matrix %D < 10% for original sample values > 50x MDL	J(+)/UJ(-) if %D >10% All samples in batch	16
Internal Standards	Every sample SW6020: 60%-125% of cal blank IS 200.8: 30%-120% of cal blank IS	J (+)/UJ (-) all analytes associated with IS outlier	19
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < AL in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff < RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must fall within range	J values over range	20

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EcoChem Validation Guidelines for Mercury Analysis by CVAA
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler temperature: 4°C ±2° Waters: Nitric Acid to pH < 2 For Dissolved Metals: 0.45um filter & preserve after filtration	EcoChem Professional Judgment - no qualification based on cooler temperature outliers J(+)/UJ(-) if pH preservation requirements are not met	1
Holding Time	28 days from date sampled Frozen tissues: HT extended to 6 months	J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + 4 standards, one at RL r > 0.995	J(+)/UJ(-) if r<0.995	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ±20% of true value	J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135% R(+/-) if %R < 65% R(+) if %R > 135%	5A
Continuing Calibration Verification (CCV)	Every ten samples, immediately following ICV/ICB and at end of run %R within ±20% of true value	J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135% R(+/-) if %R < 65% R(+) if %R > 135%	5B

Initial and Continuing Calibration Blanks (ICB/CCB)	after each ICV and CCV
	every ten samples and end of run
	| blank | < IDL (MDL)
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Reporting Limit Standard (CRA)	conc at RL - analyzed beginning of run %R = 70-130%	R(-),(+)<2xRL if %R <50% J(+)<2x RL, UJ(-) if %R 50-69% J(+) <2x RL if %R 130-180% R(+)<2x RL if %R>180%	14
Method Blank	One per matrix per batch (batch not to exceed 20 samples) blank < MDL	Action level is 5x blank concentration U(+) results < action level	7
Laboratory Control Sample (LCS)	One per matrix per batch		10
	Blank Spike: %R within 80-120%	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	
	CRM: Result within manufacturer's certified acceptance range or project guidelines	J(+)/UJ(-) if < LCL, J(+) if > UCL	
Matrix Spike/Matrix Spike Duplicate (MS/MSD)	One per matrix per batch 5% frequency 75-125% for samples less than 4x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30% all samples in batch	8
Laboratory Duplicate (or MS/MSD)	One per matrix per batch RPD < 20% for samples > 5x RL Diff < RL for samples > RL and < 5x RL (Diff < 2x RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Mercury Analysis by CVAA
(Based on Inorganic NFG 1994 & 2004)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	Blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5x RL: Water: RPD < 35% Solid: RPD < 50% For results < 5x RL: Water: Diff<RL Solid: Diff < 2x RL	J(+)/UJ(-) in parent samples only	9
Linear Range	Sample concentrations must be less than 110% of high standard	J values over range	20

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EcoChem Validation Guidelines for Conventional Chemistry Analysis (Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler Temperature 4°C ±2°C Preservation: Method Specific	Use Professional Judgment to qualify based to qualify for coole temp outliers J(+)/UJ(-) if preservation requirements not met	1
Holding Time	Method Specific	Professional Judgment J(+)/UJ(-) if holding time exceeded J(+)/R(-) if HT exceeded by > 3X	1
Initial Calibration	Method specific r>0.995	Use professional judgment J(+)/UJ(-) for r < 0.995	5A
Initial Calibration Verification (ICV)	Where applicable to method Independent source analyzed immediately after calibration %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5A
Continuing Cal Verification (CCV)	Where applicable to method Every ten samples, immed. following ICV/ICB and end of run %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5B

Initial and Continuing Cal Blanks (ICB/CCB)	Where applicable to method
	After each ICV and CCV every ten samples and end of run
	| blank| < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Method Blank	One per matrix per batch
	(not to exceed 20 samples)
	blank < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blk value, U(+) results < action level
		For (-) blk value, J(+)/UJ(-) results < action level
			7

Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Matrix Spike	One per matrix per batch; 5% frequency 75-125% for samples less than 4 x spike level	J(+) if %R > 125% or < 75% UJ(-) if %R = 30-74% R(+/-) results < IDL if %R < 30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff <RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Conventional Chemistry Analysis
(Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5X RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff<RL Solid: Diff < 2X RL	J(+)/UJ(-) in parent samples only	9

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Environmental Data Quality

APPENDIX B
QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
East Waterway Subsurface Sediments - Tier II

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Lab Qual	Val Qual	Val Reason
RB27	EW10-SC17-6-8	10-14883-RB27U	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
RB27	EW10-SC17-6-8	10-14883-RB27U	EPA 8082	Aroclor 1254		ug/kg	Y	U	22
RB27	EW10-SC08-6-8	10-14868-RB27F	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB27	EW10-SC09-6-7.2	10-14871-RB27I	EPA 8270D	1-Methylnaphthalene	270	ug/kg	J	J	5B
RB27	EW10-SC11-4-6	10-14876-RB27N	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB27	EW10-SC12-5-7	10-14878-RB27P	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB27	EW10-SC18-4-6	10-14886-RB27X	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB27	EW10-SC08-6-8	10-14868-RB27F	EPA 8270D-SIM	Butylbenzylphthalate	18	ug/kg		J	19
RB27	EW10-SC08-6-8	10-14868-RB27F	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
RB27	EW10-SC08-6-8	10-14868-RB27F	EPA 8270D-SIM	Benzo(b)fluoranthene	97	ug/kg		NJ	14
RB27	EW10-SC08-6-8	10-14868-RB27F	EPA 8270D-SIM	Benzo(k)fluoranthene	97	ug/kg		NJ	14
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Diethylphthalate		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB27	EW10-SC08-6-8	10-14868-RB27FDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27I	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	Y	U	22
RB27	EW10-SC09-6-7.2	10-14871-RB27I	EPA 8270D-SIM	Butylbenzylphthalate	52	ug/kg		J	19
RB27	EW10-SC09-6-7.2	10-14871-RB27I	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
RB27	EW10-SC09-6-7.2	10-14871-RB27I	EPA 8270D-SIM	Benzo(b)fluoranthene	2200	ug/kg		NJ	14
RB27	EW10-SC09-6-7.2	10-14871-RB27I	EPA 8270D-SIM	Benzo(k)fluoranthene	2200	ug/kg		NJ	14
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Diethylphthalate		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB27	EW10-SC09-6-7.2	10-14871-RB27IDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27N	EPA 8270D-SIM	Butylbenzylphthalate	22	ug/kg		J	19
RB27	EW10-SC11-4-6	10-14876-RB27N	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	Y	U	22
RB27	EW10-SC11-4-6	10-14876-RB27N	EPA 8270D-SIM	Benzo(b)fluoranthene	66	ug/kg		NJ	14
RB27	EW10-SC11-4-6	10-14876-RB27N	EPA 8270D-SIM	Benzo(k)fluoranthene	240	ug/kg		NJ	14

Qualified Data Summary Table
East Waterway Subsurface Sediments - Tier II

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Lab Qual	Val Qual	Val Reason
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Diethylphthalate		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB27	EW10-SC11-4-6	10-14876-RB27NDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
RB27	EW10-SC18-4-6	10-14886-RB27X	EPA 8270D-SIM	Benzo(b)fluoranthene	19	ug/kg	J	NJ	14
RB27	EW10-SC18-4-6	10-14886-RB27X	EPA 8270D-SIM	Benzo(k)fluoranthene	19	ug/kg	J	NJ	14
RB28	EW10-SC23-9-11	10-14892-RB28E	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB28	EW10-SC23-9-11LR	10-14892-RB28ELR	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB28	EW10-SC29-9.7-11.7	10-14907-RB28O	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB28	EW10-SC32-8.9-10.9	10-14910-RB28R	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB28	EW10-SC33-5.8-8	10-14912-RB28T	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB28	EW10-SC19-4-6	10-14888-RB28A	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC21-5.3-7.8	10-14889-RB28B	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC23-9-11	10-14892-RB28E	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC23-9-11	10-14892-RB28E	EPA 8270D	Fluoranthene	1800	ug/kg	E	R	20
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediments - Tier II

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Lab Qual	Val Qual	Val Reason
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Acenaphthene	100	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Aniline		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Anthracene	380	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzo(a)anthracene	500	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzo(a)pyrene	140	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzo(b)fluoranthene	160	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzo(g,h,i)perylene	55	ug/kg	J	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzo(k)fluoranthene	160	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	bis(2-Ethylhexyl)phthalate		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Carbazole	32	ug/kg	J	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Chrysene	600	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Dibenzofuran	44	ug/kg	J	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Fluorene	63	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	51	ug/kg	J	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Isophorone		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Naphthalene	30	ug/kg	J	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Phenanthrene	180	ug/kg		R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Phenol		ug/kg	U	R	11
RB28	EW10-SC23-9-11	10-14892-RB28EDL	EPA 8270D	Pyrene	1800	ug/kg		R	11
RB28	EW10-SC24-6-8	10-14894-RB28G	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC28-6.2-8	10-14899-RB28L	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC29-9.7-11.7	10-14907-RB28O	EPA 8270D	1-Methylnaphthalene	71	ug/kg	Q	J	5B
RB28	EW10-SC29-9.7-11.7	10-14907-RB28O	EPA 8270D	Phenanthrene	1600	ug/kg	E	R	20
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	1,2,4-Trichlorobenzene		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediments - Tier II

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Lab Qual	Val Qual	Val Reason
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	1,2-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	1,3-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	1,4-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	1-Methylnaphthalene	75	ug/kg	Q	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,2'-Oxybis(1-Chloropropane)		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,4,5-Trichlorophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,4,6-Trichlorophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,4-Dichlorophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,4-Dimethylphenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,4-Dinitrophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,4-Dinitrotoluene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2,6-Dinitrotoluene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2-Chloronaphthalene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2-Chlorophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2-Methylnaphthalene	51	ug/kg	J	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2-Nitroaniline		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	2-Nitrophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	3,3'-Dichlorobenzidine		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	3-Nitroaniline		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4,6-Dinitro-2-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Bromophenyl-phenylether		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Chloro-3-methylphenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Chloroaniline		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Chlorophenyl-phenylether		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Nitroaniline		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	4-Nitrophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Acenaphthene	470	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Aniline		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Anthracene	740	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzo(a)anthracene	160	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzo(a)pyrene	110	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzo(b)fluoranthene	72	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzo(g,h,i)perylene	46	ug/kg	J	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzo(k)fluoranthene	72	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzoic Acid		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Benzyl Alcohol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	bis(2-Chloroethoxy) Methane		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Bis-(2-Chloroethyl) Ether		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	bis(2-Ethylhexyl)phthalate		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Butylbenzylphthalate		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Carbazole	120	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Chrysene	160	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Dibenzofuran	330	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Diethylphthalate		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Dimethylphthalate		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Di-n-Butylphthalate		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediments - Tier II

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Lab Qual	Val Qual	Val Reason
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Di-n-Octyl phthalate		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Fluoranthene	760	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Fluorene	510	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Hexachlorobenzene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Hexachlorobutadiene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Hexachlorocyclopentadiene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Hexachloroethane		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Indeno(1,2,3-cd)pyrene	46	ug/kg	J	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Isophorone		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Naphthalene	77	ug/kg		R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Nitrobenzene		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Pentachlorophenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Phenol		ug/kg	U	R	11
RB28	EW10-SC29-9.7-11.7	10-14907-RB28ODL	EPA 8270D	Pyrene	770	ug/kg		R	11
RB28	EW10-SC32-8.9-10.9	10-14910-RB28R	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC33-5.8-8	10-14912-RB28T	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB28	EW10-SC19-4-6	10-14888-RB28A	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC21-5.3-7.8	10-14889-RB28B	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC23-9-11	10-14892-RB28E	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC23-9-11	10-14892-RB28E	EPA 8270D-SIM	Benzo(b)fluoranthene	150	ug/kg		NJ	14
RB28	EW10-SC23-9-11	10-14892-RB28E	EPA 8270D-SIM	Benzo(k)fluoranthene	150	ug/kg		NJ	14
RB28	EW10-SC24-6-8	10-14894-RB28G	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC24-6-8	10-14894-RB28G	EPA 8270D-SIM	Benzo(b)fluoranthene	150	ug/kg		NJ	14
RB28	EW10-SC24-6-8	10-14894-RB28G	EPA 8270D-SIM	Benzo(k)fluoranthene	150	ug/kg		NJ	14
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Diethylphthalate		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB28	EW10-SC24-6-8	10-14894-RB28GDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	Y	U	22
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 8270D-SIM	Butylbenzylphthalate	32	ug/kg		J	19
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 8270D-SIM	Benzo(b)fluoranthene	320	ug/kg		NJ	14
RB28	EW10-sc27-6-7.7	10-14896-RB28I	EPA 8270D-SIM	Benzo(k)fluoranthene	320	ug/kg		NJ	14
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	1,2,4-Trichlorobenzene		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	1,2-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	1,4-Dichlorobenzene		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	2,4-Dimethylphenol		ug/kg	U	R	11

Qualified Data Summary Table
East Waterway Subsurface Sediments - Tier II

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Lab Qual	Val Qual	Val Reason
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	2-Methylphenol		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Butylbenzylphthalate		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Diethylphthalate		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Dimethylphthalate		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Hexachlorobenzene		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Hexachlorobutadiene		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	N-Nitrosodimethylamine		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	N-Nitroso-Di-N-Propylamine		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	N-Nitrosodiphenylamine		ug/kg	U	R	11
RB28	EW10-sc27-6-7.7	10-14896-RB28IDL	EPA 8270D-SIM	Pentachlorophenol		ug/kg	U	R	11
RB28	EW10-SC28-6.2-8	10-14899-RB28L	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC29-9.7-11.7	10-14907-RB28O	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC29-9.7-11.7	10-14907-RB28O	EPA 8270D-SIM	Benzo(b)fluoranthene	70	ug/kg		NJ	14
RB28	EW10-SC29-9.7-11.7	10-14907-RB28O	EPA 8270D-SIM	Benzo(k)fluoranthene	70	ug/kg		NJ	14
RB28	EW10-SC32-8.9-10.9	10-14910-RB28R	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB28	EW10-SC32-8.9-10.9	10-14910-RB28R	EPA 8270D-SIM	Benzo(b)fluoranthene	43	ug/kg		NJ	14
RB28	EW10-SC32-8.9-10.9	10-14910-RB28R	EPA 8270D-SIM	Benzo(k)fluoranthene	43	ug/kg		NJ	14
RB28	EW10-SC33-5.8-8	10-14912-RB28T	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB29	EW10-SC54-8-9.2	10-14927-RB29N	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB29	EW10-SC54-8-9.2LR	10-14927-RB29NLR	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB29	EW10-SC204-8.9-10.9	10-14932-RB29S	EPA 6010B	Antimony		mg/kg	U	UJ	8
RB29	EW10-sc42-4-5.5	10-14916-RB29C	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
RB29	EW10-sc42-4-5.5	10-14916-RB29C	EPA 8082	Aroclor 1254		ug/kg	Y	U	22
RB29	EW10-SC48-4.7-6	10-14923-RB29J	EPA 8082	Aroclor 1248		ug/kg	Y	U	22
RB29	EW10-SC48-4.7-6	10-14923-RB29J	EPA 8082	Aroclor 1254		ug/kg	Y	U	22
RB29	EW10-SC54-8-9.2	10-14927-RB29N	EPA 8270D	1-Methylnaphthalene	180	ug/kg	Q	J	5B
RB29	EW10-SC201-4-6	10-14929-RB29P	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB29	EW10-SC204-8.9-10.9	10-14932-RB29S	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	5B
RB29	EW10-SC54-8-9.2	10-14927-RB29N	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB29	EW10-SC58-6-8	10-14928-RB29O	EPA 8270D-SIM	Benzo(b)fluoranthene	9.8	ug/kg		NJ	14
RB29	EW10-SC58-6-8	10-14928-RB29O	EPA 8270D-SIM	Benzo(k)fluoranthene	9.8	ug/kg		NJ	14
RB29	EW10-SC201-4-6	10-14929-RB29P	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB29	EW10-SC204-8.9-10.9	10-14932-RB29S	EPA 8270D-SIM	Benzyl Alcohol		ug/kg	U	R	10
RB29	EW10-SC204-8.9-10.9	10-14932-RB29S	EPA 8270D-SIM	Benzo(b)fluoranthene	57	ug/kg		NJ	14
RB29	EW10-SC204-8.9-10.9	10-14932-RB29S	EPA 8270D-SIM	Benzo(k)fluoranthene	57	ug/kg		NJ	14

EcoChem, INC.
Environmental Data Quality

DATA VALIDATION REPORT

East Waterway Subsurface Sediment Coring - Tier 3

Prepared for:

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EcoChem Project: C22018-9

October 7, 2010

Approved for Release:

Chris Ransom
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PROJECT NARRATIVE

Basis for the Data Validation

This report summarizes the results of summary (EPA Stage 2B) and full (EPA Stage 4) validation performed on sediment and quality control sample data for the East Waterway Subsurface Sediment Coring Project. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed for pesticides by Columbia Analytical Services, Kelso, Washington. All other analyses were performed by Analytical Resources, Inc. (ARI), Tukwila, Washington. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Semivolatile Organic Compounds	EPA 8270D	Mark Brindle	Chris Ransom
Select Semivolatile Organic Compounds	EPA 8270D-SIM		
Polycyclic Aromatic Hydrocarbons			
Polychlorinated Biphenyls	EPA 8082		
Pesticides	EPA 1699M		
Total Solids	EPA 160.3		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; the quality assurance project plan (QAPP) from the *Subsurface Sediment Sampling for Chemical Analyses in the East Waterway* (January 2010); *National Functional Guidelines for Inorganic Data Review* (USEPA 1994 & 2004); and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Port of Seattle East Waterway
Subsurface Sediments Tier 3

SDG	Sample ID	Laboratory ID	SVOC	SVOC-SIM	PAH	PCB	PEST
RH22	EW10-SC09-7.2-9.2	10-18827-RH22A	✓	✓		✓	
	EW10-SC11-6-8	10-18828-RH22B				✓	
	EW10-SC17-11.5-13	10-18829-RH22C				✓	
	EW10-SC23-11-12.9	10-18830-RH22D			✓		
	EW10-SC24-8-10	10-18831-RH22E	✓	✓		✓	
	EW10-SC30-6-8	10-18832-RH22F				✓	
	EW10-SC203-6-8	10-18833-RH22G				✓	
	EW10-SC48-6-8	10-18834-RH22H				✓	
K1008332	EW10-SC11-4-6	K1008332-001					✓
	EW10-SC54-8-9.2	K1008332-002					✓

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring - Tier 3
Semivolatile Compounds by Method 8270D

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RH22	2 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times	1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	GC/MS Instrument Performance	1	Reference Material
	Initial Calibration (ICAL)		Target Analyte List
1	Continuing Calibration (CCAL)		Internal Standards
	Laboratory Blanks		Reporting Limits
1	Surrogate Compounds		Reported Results
	Laboratory Control Samples (LCS/LCSD)		Compound Identification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of

collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Samples were archived at -20°C. All samples were extracted within the extended holding time of one year for frozen sediments.

Continuing Calibration

The percent difference (%D) value for pentachlorophenol was outside of the ±25% control limit (at -30.8%) and indicative of an increase in response. This analyte was not detected in the associated samples; therefore no qualifiers were necessary based on the potential high bias.

Surrogate Compounds

The percent recovery (%R) value for phenol-d5 was greater than the upper control limit in Sample SRM-SQ-1. Qualifiers are not applied to quality control (QC) samples. No action was required.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicates (MS/MSD) were not analyzed. Laboratory accuracy was evaluated using the results from the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries. Precision was evaluated using the LCS/LCSD relative percent difference (RPD) values.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. As the SQ-1 values are reference values only and are not certified, no action was taken based on the recovery value outliers.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate and LCS/LCSD recoveries. Precision was also acceptable as demonstrated by the LCS/LCSD relative percent difference values.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring - Tier 3
Semivolatile Compounds by Method 8270D SIM

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RH22	2 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times		Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	GC/MS Instrument Performance	1	Reference Material
	Initial Calibration (ICAL)		Internal Standards
	Continuing Calibration (CCAL)		Target Analyte List
	Laboratory Blanks		Reporting Limits
	Surrogate Compounds		Reported Results
	Laboratory Control Samples (LCS)		Compound Identification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Samples were archived at -20°C. All samples were extracted within the extended holding time of one year for frozen sediments.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. As the SQ-1 values are reference values only and are not certified, no action was taken based on the recovery value outliers.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample, and matrix spike/matrix spike duplicate (MS/MSD) recoveries. Precision was also acceptable as demonstrated by the MS/MSD relative percent difference values.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring - Tier 3
Polycyclic Aromatic Hydrocarbons by Method 8270C-SIM

This report documents the review of analytical data from the analysis of one sediment sample and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
RH22	1 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1 Sample Preservation and Holding Times
GC/MS Instrument Performance
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
Laboratory Blanks
Surrogate Compounds
Laboratory Control Samples (LCS/LCSD)
Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
Internal Standards
Target Analyte List
Reporting Limits
Compound Identification
2 Reported Results

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

The validation guidance documents state that the cooler temperatures should be within an advisory temperature range of 0°C to 6°C. The laboratory received sample coolers with temperatures greater than the upper control limit, ranging to 9.3°C. There was insufficient time for the samples and

coolers to reach the desired temperature as the laboratory received the samples within two hours of collection. These temperature outliers did not impact data quality and no qualifiers were assigned.

Samples were archived at -20°C. All samples were extracted within the extended holding time of one year for frozen sediments.

Reported Results

The laboratory was unable to distinguish between benzo(b)fluoranthene and benzo(k)fluoranthene due to the closeness of the retention times for each compound. The results for these two compounds were reported as total benzofluoranthenes on the summary forms. At the request of Windward, the total benzofluoranthene result was split and reported equally as benzo(b)fluoranthene and benzo(k)fluoranthene in the EDD. Since it is not possible to determine whether only one or both analytes were present, the positive results for these analytes were tentatively identified and estimated (NJ-14). If only the total benzofluoranthene value is used, then data are acceptable without qualification.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, matrix spike/matrix spike duplicate (MS/MSD), and laboratory control sample recoveries. Precision was also acceptable as demonstrated by the relative percent difference values for the MS/MSD analyses.

Data were estimated with tentative identification due to the co-elution of two isomers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring - Tier 3
PCB Aroclors by EPA Method 8082

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc., Tukwila, Washington. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
RH22	7 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Preservation and Holding Times	1	Reference Material
	Initial Calibration (ICAL)		Internal Standards
	Continuing Calibration (CCAL)		Target Analyte List
	Laboratory Blanks	1	Reporting Limits
	Surrogate Compounds		Reported Results
	Laboratory Control Samples (LCS)		Compound Identification
	Matrix Spike/Matrix Spike Duplicates (MS/MSD)		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. The laboratory received several coolers with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received

within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Samples were archived at -20°C. All samples were extracted within the extended holding time of one year for frozen sediments.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recovery for Aroclor 1254 was within the reference range.

Reporting Limits

All samples were analyzed at dilution (5x) due to matrix interferences; reporting limits were elevated accordingly.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample, and matrix spike/matrix spike duplicate (MS/MSD) percent recovery values. Precision was also acceptable as demonstrated by the MS/MSD relative percent difference values.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
East Waterway Subsurface Sediment Coring - Tier 3
Chlorinated Pesticides by EPA Method 1699M

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Columbia Analytical Services, Inc., Kelso, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
K1008332	2 Sediment	Stage 4

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1 Sample Preservation and Holding Times
GC/MS Instrument Performance
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
2 Laboratory Blanks
2 Labeled Compounds
2 Laboratory Control Samples (LCS/LCSD)
1 Matrix Spike/Matrix Spike Duplicates (MS/MSD)
Target Analyte List
Reporting Limits
2 Reported Results
Compound Identification
1 Calculation Verification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

As stated in the QAPP, sample shipping coolers should arrive at the laboratory within the advisory temperature range of 0°C to 6°C. Samples were originally received at Analytical Resources, Inc, with temperatures greater than the upper control limit, ranging to 9.3°C. The samples were received within two hours of collection. These temperature outliers did not impact data quality; therefore no qualifiers were assigned.

Samples were archived at -20°C. The cooler temperature for samples received at Columbia Analytical services was -0.4°C. All samples were extracted within the extended holding time of one year for frozen sediments.

Laboratory Blanks

Hexachlorobenzene was detected in the method blank. In order to evaluate the effect on the sample data, an action level of five times the blank concentration was established. The hexachlorobenzene result in Sample EW10-SC54-8-9.2 was less than the action level and was qualified as not detected (U-7).

Labeled Compounds

The percent recovery (%R) value for oxychlordane-$^{13}C_{10}$ was greater than the upper control limit in Sample EW10-SC11-4-6. Oxychlordane was not detected in the sample. The detection limit was not affected by the potential high bias and no further action was necessary.

The %R value for aldrin-$^{13}C_{12}$ was less than 10% in both samples. This labeled compound is only associated with aldrin. Aldrin was not detected in either sample; results were rejected (R-8) due to the extreme loss of sensitivity as indicated by the low labeled compound recovery.

Laboratory Control Samples

For the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) prepared on 8/9/2010 (KWG1008587-1 and KWG1008587-2), the recoveries for delta-BHC were less than 10%. Delta-BHC was not detected in either field sample; results were rejected (R-10) due to the extreme low bias.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Laboratory accuracy was evaluated using the LCS/LCSD and labeled compound recoveries. Laboratory precision was evaluated using the relative percent difference (RPD) values for the LCS/LCSD analyses.

Reported Results

In Sample EW10-SC11-4-6, the concentration of 4,4′-DDD was greater than the calibrated linear range of the instrument. The 4,4′-DDD result was estimated (J-20) for this sample.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the labeled compound and LCS/LCSD recoveries, except as previously noted. Precision was also acceptable as demonstrated by the RPD values for the LCS/LCSD analyses.

One detection limit was elevated due to method blank contamination. One data point was estimated for exceeding the calibration range of the instrument.

Data were rejected based on LCS/LCSD and labeled compound recoveries that were less than 10%.

Data that have been rejected should not be used for any purpose. All other data, as qualified, are acceptable for use.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives
22	Elevated Detection Limit Due to Interference (i.e., laboratory, chemical and/or matrix)

EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	Water: J(+)/UJ(-) if ext. > 7 and < 21 days J(+)/R(-) if ext > 21 days (EcoChem PJ) Solids/Wastes: J(+)/UJ(-) if ext. > 14 and < 42 days J(+)/R(-) if ext. > 42 days (EcoChem PJ) J(+)/UJ(-) if analysis >40 days	1
Tuning	DFTPP Beginning of each 12 hour period Method acceptance criteria	R(+/-) all analytes in all samples associated with the tune	5A
Initial Calibration (Minimum 5 stds.)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5A
	%RSD < 30%	(EcoChem PJ, see TM-06) J(+) if %RSD > 30%	5A
Continuing Calibration (Prior to each 12 hr. shift)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5B
	%D <25%	(EcoChem PJ, see TM-06) If > +/-90%: J+/R- If -90% to -26%: J+ (high bias) If 26% to 90%: J+/UJ- (low bias)	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample (+) result is less than CRQL and less than appropriate 5X or 10X rule (raise sample value to CRQL)	7
		U(+) if sample (+) result is greater than or equal to CRQL and less than appropriate 5X and 10X rule (at reported sample value)	7
	No TICs present	R(+) TICs using 10X rule	7
Field Blanks (Not Required)	No results > CRQL	Apply 5X/10X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One per matrix per batch Use method acceptance criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One per matrix per batch Use method acceptance criteria	J(+) in parent sample if RPD > CL	9
LCS low conc. H2O SVOA	One per lab batch Within method control limits	J(+) assoc. cmpd if > UCL J(+)/R(-) assoc. cmpd if < LCL J(+)/R(-) all cmpds if half are < LCL	10
LCS regular SVOA (H2O & solid)	One per lab batch Lab or method control limits	J(+) if %R > UCL J(+)/UJ(-) if %R <LCL J(+)/R(-) if %R < 10% (EcoChem PJ)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	Minimum of 3 acid and 3 base/neutral compounds Use method acceptance criteria	Do not qualify if only 1 acid and/or 1 B/N surrogate is out unless <10% J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) if %R < 10%	13
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	J(+) if > 200% J(+)/UJ(-) if < 50% J(+)/R(-) if < 25% RT>30 seconds, narrate and Notify PM	19
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NJ the TIC unless: R(+) common laboratory contaminants See Technical Director for ID issues	4
Quantitation/ Identification	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	See Technical Director if outliers	14 21 (false +)

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EcoChem Validation Guidelines for Pesticides, PCBs, Herbicides, and Phenol by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Methods 8081/8082/8041/8151)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (EcoChem PJ)	1
Resolution Check	Beginning of ICAL Sequence Within RTW Resolution >90%	Narrate (Use Professional Judgement to qualify)	14
Instrument Performance (Breakdown)	DDT Breakdown: < 20% Endrin Breakdown: <20% Combined Breakdown: <30% Compounds within RTW	J(+) DDT NJ(+) DDD and/or DDE R(-) DDT - If (+) for either DDE or DDD J(+) Endrin NJ(+) EK and/or EA R(-) Endrin - If (+) for either EK or EA	5A
Retention Times	Surrogates: TCX (+/- 0.05); DCB (+/- 0.10) Target compounds: elute before heptachlor epoxide (+/- 0.05) elute after heptachlor epoxide (+/- 0.07)	NJ(+)/R(-) results for analytes with RT shifts For full DV, use PJ based on examination of raw data	5B
Initial Calibration	Pesticides: Low=CRQL, Mid=4X, High=16X Multiresponse - one point Calibration %RSD<20% %RSD<30% for surr; two comp. may exceed if <30% Resolution in Mix A and Mix B >90%	J(+)/UJ(-)	5A
Continuing Calibration	Alternating PEM standard and INDA/INDB standards every 12 hours (each preceeded by an inst. Blank) %D < 25% Resolution >90% in IND mixes; 100% for PEM	J(+)/UJ(-) J(+)R(-) if %D > 90% PJ for resolution	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample result is < CRQL and < 5X rule (raise sample value to CRQL) U(+) if sample result is > or equal to CRQL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > 1/2 CRQL	Same as Method Blank	7
Field Blanks	Not addressed by NFG No results > CRQL	Apply 5X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Pesticides, PCBs, Herbicides, and Phenol by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Methods 8081/8082/8041/8151)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) in parent sample if RPD > CL	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	TCX and DCB added to every sample %R = 30-150%	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Quantitated using ICAL calibration factor (CF) RPD between columns <40%	J(+) if RPD = 40 - 60% NJ(+) if RPD >60% EcoChem PJ - See TM-08	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Sample Clean-up	GPC required for soil samples Florisil required for all samples Sulfur is optional Clean-up standard check %R within CLP limits	J(+)/UJ(-) if %R < LCL J(+) if %R > UCL	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate (Qualifiy if required by project QAPP)	9

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Environmental Data Quality

APPENDIX B
QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Port of Seattle East Waterway
Subsurface Sediments Tier 3

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Qualifier	Validation Qualifier	Validation Reason
RH22	EW10-SC23-11-12.9	10-18830-RH22D	EPA 8270D-SIM	Benzo(k)fluoranthene	13	ug/kg		NJ	14
RH22	EW10-SC23-11-12.9	10-18830-RH22D	EPA 8270D-SIM	Benzo(b)fluoranthene	13	ug/kg		NJ	14
K1008332	EW10-SC11-4-6	K1008332-001	EPA 1699M	Aldrin		ug/kg	U	R	13
K1008332	EW10-SC11-4-6	K1008332-001	EPA 1699M	4,4'-DDD	7.5	ug/kg	E	J	20
K1008332	EW10-SC11-4-6	K1008332-001	EPA 1699M	delta-BHC		ug/kg	U	R	10
K1008332	EW10-SC54-8-9.2	K1008332-002	EPA 1699M	delta-BHC		ug/kg	U	R	10
K1008332	EW10-SC54-8-9.2	K1008332-002	EPA 1699M	Aldrin		ug/kg	U	R	13
K1008332	EW10-SC54-8-9.2	K1008332-002	EPA 1699M	Hexachlorobenzene	0.074	ug/kg	B	U	7

EcoChem, INC.
Environmental Data Quality

DATA VALIDATION REPORT

East Waterway Intertidal MIS Sediment Sampling

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EcoChem Project: C22018-10

November 3, 2010

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PROJECT NARRATIVE

Basis for the Data Validation

This report summarizes the results of summary validation performed on sediment samples and quality control sample data for the East Waterway Intertidal MIS Sediment sampling. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Semivolatile Organic Compounds	EPA 8270D	Ben Frans	Eric Strout

The data were reviewed using guidance and quality control criteria documented in the analytical methods; the quality assurance project plan (QAPP) from the *Intertidal MIS Sediment Sampling* (July, 2009); and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
East Waterway Intertidal MIS Sediment Sampling
Analytical Resources Inc.

SDG	Sample ID	Lab ID	SVOC
RN92	EW10-01A-COMP	10-23817-RN92A	✓
RN92	EW10-01B-COMP	10-23818-RN92B	✓
RN92	EW10-01C-COMP	10-23819-RN92C	✓
RN92	EW10-02-COMP	10-23820-RN92D	✓
RN92	EW10-03A-COMP	10-23821-RN92E	✓
RN92	EW10-03B-COMP	10-23822-RN92F	✓
RN92	EW10-03C-COMP	10-23823-RN92G	✓
RN92	EW10-04-COMP	10-23824-RN92H	✓
RN92	EW10-05-COMP	10-23825-RN92I	✓
RN92	EW10-06-COMP	10-23826-RN92J	✓
RN92	EW10-07-COMP	10-23827-RN92K	✓
RN92	EW10-08-COMP	10-23828-RN92L	✓
RN92	EW10-09-COMP	10-23829-RN92M	✓
RN92	EW10-11-COMP	10-23830-RN92N	✓
RN92	EW10-SB01-24.5-26.5	10-23910-RN92O	✓

DATA VALIDATION REPORT
East Waterway – MIS Intertidal Sediments
Semivolatile Compounds by EPA Method 8270D

This report documents the review of analytical data from the analysis of nine composite sediment samples, one discrete sediment sample, and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
RN92	14 Composite Sediment, 1 Sediment	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

2	Sample Preservation and Holding Time	1	Reference Material
	GC/MS Instrument Performance	1	Matrix Spike/Matrix Spike Duplicate (MS/MSD)
	Initial Calibration (ICAL)		Internal Standards
	Continuing Calibration (CCAL)	1	Field Duplicates
	Laboratory Blanks		Target Analyte List
1	Field Blanks		Reporting Limits
	Surrogate Compounds	2	Reported Results
	Laboratory Control Samples (LCS/LCSD)		Compound Identification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Sample Preservation and Holding Times

Samples were archived at -20°C. All of the composite samples were extracted 408 to 410 days after collection, beyond the extended holding time of one year for frozen sediments. Due to the potential low bias, all results for the composite samples were estimated (UJ/J-1).

Field Blanks

No samples identified as field blanks were submitted.

Reference Material

The Sequim Bay reference material SQ-1 was analyzed with the samples. The recoveries for several analytes were outside of the reference range. As the SQ-1 values are reference values only and are not certified, no action was taken based on the recovery value outliers.

Matrix Spike/Matrix Spike Duplicate

Sample EW10-01A-COMP was used for the matrix spike/matrix spike duplicate (MS/MSD) analyses. All percent recovery (%R) values in the matrix spike were acceptable. In the matrix spike duplicate, the recovery values for phenanthrene (at 102%), fluoranthene (114%), and pyrene (108%) were slightly greater than the upper control limits. Since the matrix spike recoveries were acceptable, no data were qualified based on the single %R outliers.

Field Duplicates

No samples identified as field duplicates were submitted.

Reported Results

For a number of samples, the concentrations of one or more target analytes were greater than the calibrated linear range of the instrument. The results were flagged "E" by the laboratory. The samples were reanalyzed at dilutions, and the concentrations were within the linear range. Both sets of data were reported by the laboratory. To indicate which results should be reported from each analysis, the results that exceeded the linear range in the original analysis were rejected (R-20). The results for all other compounds in the dilution were rejected (R-11).

The concentrations of the following compounds were greater than the calibrated linear range:

Sample EW10-03A-COMP: fluoranthene, pyrene, and chrysene

Sample EW10-05-COMP: phenanthrene, fluoranthene, pyrene, chrysene, benzo(a)pyrene, and total benzofluoranthenes

Sample EW10-06-COMP: fluorene, phenanthrene, anthracene, fluoranthene, benzo(a)anthracene, pyrene, chrysene, benzo(a)pyrene, and total benzofluoranthenes

Sample EW10-07-COMP was also reanalyzed at a 5x dilution factor, even though all concentrations were with in the calibrated linear range of the instrument and no QC outliers were evident. The results from the re-analysis are rejected (R-11); the original results should be used.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control samples (LCS), and MS/MSD recoveries, with the exceptions previously noted, precision was also acceptable as demonstrated by the RPD values for the MS/MSD analyses.

Data were estimated based on sample extractions that occurred past the holding time limit. Data were rejected to indicate which result should not be used when multiple results were reported for a sample.

Data that have been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

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Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives
22	Elevated Detection Limit Due to Interference (i.e., laboratory, chemical and/or matrix)

EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	Water: J(+)/UJ(-) if ext. > 7 and < 21 days J(+)/R(-) if ext > 21 days (EcoChem PJ) Solids/Wastes: J(+)/UJ(-) if ext. > 14 and < 42 days J(+)/R(-) if ext. > 42 days (EcoChem PJ) J(+)/UJ(-) if analysis >40 days	1
Tuning	DFTPP Beginning of each 12 hour period Method acceptance criteria	R(+/-) all analytes in all samples associated with the tune	5A
Initial Calibration (Minimum 5 stds.)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5A
	%RSD < 30%	(EcoChem PJ, see TM-06) J(+) if %RSD > 30%	5A
Continuing Calibration (Prior to each 12 hr. shift)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5B
	%D <25%	(EcoChem PJ, see TM-06) If > +/-90%: J+/R- If -90% to -26%: J+ (high bias) If 26% to 90%: J+/UJ- (low bias)	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample (+) result is less than CRQL and less than appropriate 5X or 10X rule (raise sample value to CRQL)	7
		U(+) if sample (+) result is greater than or equal to CRQL and less than appropriate 5X and 10X rule (at reported sample value)	7
	No TICs present	R(+) TICs using 10X rule	7
Field Blanks (Not Required)	No results > CRQL	Apply 5X/10X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Semivolatile Analysis by GC/MS
(Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One per matrix per batch Use method acceptance criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One per matrix per batch Use method acceptance criteria	J(+) in parent sample if RPD > CL	9
LCS low conc. H2O SVOA	One per lab batch Within method control limits	J(+) assoc. cmpd if > UCL J(+)/R(-) assoc. cmpd if < LCL J(+)/R(-) all cmpds if half are < LCL	10
LCS regular SVOA (H2O & solid)	One per lab batch Lab or method control limits	J(+) if %R > UCL J(+)/UJ(-) if %R <LCL J(+)/R(-) if %R < 10% (EcoChem PJ)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	Minimum of 3 acid and 3 base/neutral compounds Use method acceptance criteria	Do not qualify if only 1 acid and/or 1 B/N surrogate is out unless <10% J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) if %R < 10%	13
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	J(+) if > 200% J(+)/UJ(-) if < 50% J(+)/R(-) if < 25% RT>30 seconds, narrate and Notify PM	19
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NJ the TIC unless: R(+) common laboratory contaminants See Technical Director for ID issues	4
Quantitation/ Identification	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	See Technical Director if outliers	14 21 (false +)

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APPENDIX B
QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	2-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Acenaphthene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Anthracene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Benzo(a)anthracene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Benzo(a)pyrene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Chrysene	13	ug/kg	J	J	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Dibenzofuran		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Fluoranthene	18	ug/kg	J	J	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Fluorene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Naphthalene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Phenanthrene		ug/kg	U	UJ	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Pyrene	20	ug/kg		J	1
RN92	EW10-01A-COMP	10-23817-RN92A	EPA 8270D	Total Benzofluoranthenes	22	ug/kg		J	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	2-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Acenaphthene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Anthracene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Benzo(a)anthracene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Benzo(a)pyrene	11	ug/kg	J	J	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Chrysene	17	ug/kg	J	J	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Dibenzofuran		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Fluoranthene	20	ug/kg	J	J	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Fluorene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Naphthalene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Phenanthrene		ug/kg	U	UJ	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Pyrene	51	ug/kg		J	1
RN92	EW10-01B-COMP	10-23818-RN92B	EPA 8270D	Total Benzofluoranthenes	30	ug/kg		J	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	2-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Acenaphthene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Anthracene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Benzo(a)anthracene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Benzo(a)pyrene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Benzo(g,h,i)perylene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Chrysene	13	ug/kg	J	J	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Dibenz(a,h)anthracene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Dibenzofuran		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Fluoranthene	15	ug/kg	J	J	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Fluorene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Indeno(1,2,3-cd)pyrene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Naphthalene		ug/kg	U	UJ	1

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Phenanthrene		ug/kg	U	UJ	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Pyrene	16	ug/kg	J	J	1
RN92	EW10-01C-COMP	10-23819-RN92C	EPA 8270D	Total Benzofluoranthenes	23	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	2-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Acenaphthene		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Anthracene	44	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Benzo(a)anthracene	98	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Benzo(a)pyrene	160	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Benzo(g,h,i)perylene	80	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Chrysene	200	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Dibenz(a,h)anthracene	36	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Dibenzofuran		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Fluoranthene	200	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Fluorene		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Indeno(1,2,3-cd)pyrene	74	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Naphthalene		ug/kg	U	UJ	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Phenanthrene	86	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Pyrene	340	ug/kg		J	1
RN92	EW10-02-COMP	10-23820-RN92D	EPA 8270D	Total Benzofluoranthenes	360	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	1-Methylnaphthalene	14	ug/kg	J	J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	2-Methylnaphthalene	16	ug/kg	J	J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Acenaphthene	50	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Acenaphthylene	37	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Anthracene	390	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Benzo(a)anthracene	1800	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Benzo(a)pyrene	1800	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Benzo(g,h,i)perylene	440	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Chrysene	2700	ug/kg	E	R	20
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Dibenz(a,h)anthracene	240	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Dibenzofuran	20	ug/kg	J	J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Fluoranthene	4400	ug/kg	ES	R	20
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Fluorene	44	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Indeno(1,2,3-cd)pyrene	460	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Naphthalene	24	ug/kg	J	J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Phenanthrene	340	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Pyrene	4000	ug/kg	ES	R	20
RN92	EW10-03A-COMP	10-23821-RN92E	EPA 8270D	Total Benzofluoranthenes	3400	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Acenaphthene		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Anthracene	350	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Benzo(a)anthracene	2000	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Benzo(a)pyrene	1800	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Benzo(g,h,i)perylene	670	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Chrysene	2800	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Dibenz(a,h)anthracene	320	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Fluoranthene	5200	ug/kg		J	1

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Fluorene		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	610	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Phenanthrene	340	ug/kg		R	11
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Pyrene	5100	ug/kg		J	1
RN92	EW10-03A-COMP	10-23821-RN92EDL	EPA 8270D	Total Benzofluoranthenes	3400	ug/kg		R	11
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	2-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Acenaphthene		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Anthracene	32	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Benzo(a)anthracene	82	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Benzo(a)pyrene	110	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Benzo(g,h,i)perylene	39	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Chrysene	230	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Dibenz(a,h)anthracene	23	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Dibenzofuran		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Fluoranthene	150	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Fluorene		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Indeno(1,2,3-cd)pyrene	40	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Naphthalene		ug/kg	U	UJ	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Phenanthrene	62	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Pyrene	180	ug/kg		J	1
RN92	EW10-03B-COMP	10-23822-RN92F	EPA 8270D	Total Benzofluoranthenes	260	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	2-Methylnaphthalene	15	ug/kg	J	J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Acenaphthene	27	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Acenaphthylene	22	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Anthracene	160	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Benzo(a)anthracene	360	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Benzo(a)pyrene	450	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Benzo(g,h,i)perylene	130	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Chrysene	850	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Dibenz(a,h)anthracene	68	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Dibenzofuran	29	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Fluoranthene	1000	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Fluorene	64	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Indeno(1,2,3-cd)pyrene	140	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Naphthalene	12	ug/kg	J	J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Phenanthrene	380	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Pyrene	1000	ug/kg		J	1
RN92	EW10-03C-COMP	10-23823-RN92G	EPA 8270D	Total Benzofluoranthenes	1200	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	1-Methylnaphthalene	86	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	2-Methylnaphthalene	91	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Acenaphthene	170	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Acenaphthylene	130	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Anthracene	390	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Benzo(a)anthracene	980	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Benzo(a)pyrene	1400	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Benzo(g,h,i)perylene	640	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Chrysene	1600	ug/kg		J	1

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Dibenz(a,h)anthracene	190	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Dibenzofuran	93	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Fluoranthene	3500	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Fluorene	210	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Indeno(1,2,3-cd)pyrene	540	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Naphthalene	240	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Phenanthrene	2600	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Pyrene	3800	ug/kg		J	1
RN92	EW10-04-COMP	10-23824-RN92H	EPA 8270D	Total Benzofluoranthenes	2400	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	1-Methylnaphthalene	290	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	2-Methylnaphthalene	430	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Acenaphthene	890	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Acenaphthylene	130	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Anthracene	2300	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Benzo(a)anthracene	2300	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Benzo(a)pyrene	3400	ug/kg	E	R	20
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Benzo(g,h,i)perylene	940	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Chrysene	4500	ug/kg	ES	R	20
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Dibenz(a,h)anthracene	460	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Dibenzofuran	640	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Fluoranthene	9300	ug/kg	ES	R	20
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Fluorene	1100	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Indeno(1,2,3-cd)pyrene	1000	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Naphthalene	980	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Phenanthrene	7000	ug/kg	ES	R	20
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Pyrene	7600	ug/kg	ES	R	20
RN92	EW10-05-COMP	10-23825-RN92I	EPA 8270D	Total Benzofluoranthenes	6800	ug/kg	ES	R	20
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	1-Methylnaphthalene	280	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	2-Methylnaphthalene	400	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Acenaphthene	840	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Acenaphthylene	100	ug/kg	J	R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Anthracene	2100	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Benzo(a)anthracene	3100	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Benzo(a)pyrene	3200	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Benzo(g,h,i)perylene	1900	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Chrysene	4400	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Dibenz(a,h)anthracene	720	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Dibenzofuran	610	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Fluoranthene	11000	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Fluorene	990	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	1600	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Naphthalene	940	ug/kg		R	11
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Phenanthrene	7900	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Pyrene	9100	ug/kg		J	1
RN92	EW10-05-COMP	10-23825-RN92IDL	EPA 8270D	Total Benzofluoranthenes	6300	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	1-Methylnaphthalene	4400	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	2-Methylnaphthalene	5200	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Acenaphthene	5600	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Anthracene	8300	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Benzo(a)anthracene	13000	ug/kg	ES	R	20

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Benzo(a)pyrene	11000	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Benzo(g,h,i)perylene	2200	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Chrysene	12000	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Dibenz(a,h)anthracene	1300	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Dibenzofuran	2100	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Fluoranthene	27000	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Fluorene	7100	ug/kg	E	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Indeno(1,2,3-cd)pyrene	2500	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Naphthalene	5600	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Phenanthrene	34000	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Pyrene	26000	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92J	EPA 8270D	Total Benzofluoranthenes	19000	ug/kg	ES	R	20
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	1-Methylnaphthalene	5300	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	2-Methylnaphthalene	5900	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Acenaphthene	6600	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Anthracene	11000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Benzo(a)anthracene	16000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Benzo(a)pyrene	12000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Benzo(g,h,i)perylene	5700	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Chrysene	17000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Dibenz(a,h)anthracene	2600	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Dibenzofuran	2700	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Fluoranthene	44000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Fluorene	8300	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	5100	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Naphthalene	6700	ug/kg		R	11
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Phenanthrene	62000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Pyrene	52000	ug/kg		J	1
RN92	EW10-06-COMP	10-23826-RN92JDL	EPA 8270D	Total Benzofluoranthenes	20000	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	1-Methylnaphthalene	38	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	2-Methylnaphthalene	50	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Acenaphthene	230	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Acenaphthylene	43	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Anthracene	340	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Benzo(a)anthracene	680	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Benzo(a)pyrene	790	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Benzo(g,h,i)perylene	170	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Chrysene	1400	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Dibenz(a,h)anthracene	79	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Dibenzofuran	61	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Fluoranthene	3000	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Fluorene	90	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Indeno(1,2,3-cd)pyrene	180	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Naphthalene	97	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Phenanthrene	460	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Pyrene	2900	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92K	EPA 8270D	Total Benzofluoranthenes	2000	ug/kg		J	1
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	1-Methylnaphthalene		ug/kg	U	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	2-Methylnaphthalene		ug/kg	U	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Acenaphthene	220	ug/kg		R	11

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Acenaphthylene		ug/kg	U	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Anthracene	280	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Benzo(a)anthracene	790	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Benzo(a)pyrene	590	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Benzo(g,h,i)perylene	290	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Chrysene	1000	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Dibenz(a,h)anthracene	130	ug/kg	J	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Dibenzofuran		ug/kg	U	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Fluoranthene	3000	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Fluorene		ug/kg	U	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Indeno(1,2,3-cd)pyrene	260	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Naphthalene		ug/kg	U	R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Phenanthrene	450	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Pyrene	2800	ug/kg		R	11
RN92	EW10-07-COMP	10-23827-RN92KDL	EPA 8270D	Total Benzofluoranthenes	1500	ug/kg		R	11
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	1-Methylnaphthalene	27	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	2-Methylnaphthalene	23	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Acenaphthene	61	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Acenaphthylene	20	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Anthracene	80	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Benzo(a)anthracene	150	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Benzo(a)pyrene	150	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Benzo(g,h,i)perylene	45	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Chrysene	200	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Dibenz(a,h)anthracene	26	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Dibenzofuran	36	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Fluoranthene	410	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Fluorene	37	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Indeno(1,2,3-cd)pyrene	52	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Naphthalene	49	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Phenanthrene	150	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Pyrene	370	ug/kg		J	1
RN92	EW10-08-COMP	10-23828-RN92L	EPA 8270D	Total Benzofluoranthenes	320	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	1-Methylnaphthalene	14	ug/kg	J	J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	2-Methylnaphthalene	16	ug/kg	J	J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Acenaphthene	18	ug/kg	J	J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Acenaphthylene	20	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Anthracene	72	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Benzo(a)anthracene	170	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Benzo(a)pyrene	220	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Benzo(g,h,i)perylene	62	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Chrysene	240	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Dibenz(a,h)anthracene	34	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Dibenzofuran	16	ug/kg	J	J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Fluoranthene	380	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Fluorene	21	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Indeno(1,2,3-cd)pyrene	69	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Naphthalene	19	ug/kg	J	J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Phenanthrene	200	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Pyrene	480	ug/kg		J	1
RN92	EW10-09-COMP	10-23829-RN92M	EPA 8270D	Total Benzofluoranthenes	460	ug/kg		J	1

Qualified Data Summary Table
East Waterway MIS Intertidal Sediment Sampling

SDG	Sample ID	Lab ID	Method	Analyte	Result	Units	Lab Quals	Val Quals	Val Reason
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	1-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	2-Methylnaphthalene		ug/kg	U	UJ	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Acenaphthene	42	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Acenaphthylene		ug/kg	U	UJ	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Anthracene	41	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Benzo(a)anthracene	120	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Benzo(a)pyrene	120	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Benzo(g,h,i)perylene	27	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Chrysene	180	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Dibenz(a,h)anthracene	16	ug/kg	J	J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Dibenzofuran		ug/kg	U	UJ	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Fluoranthene	240	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Fluorene	11	ug/kg	J	J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Indeno(1,2,3-cd)pyrene	30	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Naphthalene	16	ug/kg	J	J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Phenanthrene	71	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Pyrene	390	ug/kg		J	1
RN92	EW10-11-COMP	10-23830-RN92N	EPA 8270D	Total Benzofluoranthenes	280	ug/kg		J	1

APPENDIX E

Analytical Laboratory Data

METALS

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC03-0-2
SAMPLE

Lab Sample ID: QL56A
LIMS ID: 10-4777
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 65.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/16/10	7440-36-0	Antimony	7	7	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**13.2**	
3050B	03/01/10	6010B	03/16/10	**7440-43-9**	**Cadmium**	0.3	**1.4**	
3050B	03/01/10	6010B	03/16/10	**7440-47-3**	**Chromium**	0.7	**43.1**	
3050B	03/01/10	6010B	03/16/10	**7440-48-4**	**Cobalt**	0.4	**5.8**	
3050B	03/01/10	6010B	03/16/10	**7440-50-8**	**Copper**	0.3	**55.0**	
3050B	03/01/10	6010B	03/16/10	**7439-92-1**	**Lead**	3	**130**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.52**	
3050B	03/01/10	6010B	03/16/10	**7439-98-7**	**Molybdenum**	0.7	**3.6**	
3050B	03/01/10	6010B	03/16/10	**7440-02-0**	**Nickel**	1	**17**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/01/10	6010B	03/16/10	**7440-22-4**	**Silver**	0.4	**2.0**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/16/10	**7440-62-2**	**Vanadium**	0.4	**54.3**	
3050B	03/01/10	6010B	03/16/10	**7440-66-6**	**Zinc**	1	**167**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC03-2-4
SAMPLE

Lab Sample ID: QL56B
LIMS ID: 10-4778
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 87.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	5	5	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**1.4**	
3050B	03/01/10	6010B	03/17/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.5	**9.4**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.3	**4.2**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.2	**8.4**	
3050B	03/01/10	6010B	03/17/10	7439-92-1	Lead	2	2	U
CLP	03/01/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/01/10	6010B	03/17/10	7439-98-7	Molybdenum	0.5	0.5	U
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**7**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.5	0.5	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.3	0.3	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.3	**37.9**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**23**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC04-0-2
SAMPLE

Lab Sample ID: QL56C
LIMS ID: 10-4779
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 59.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**18.6**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**1.9**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**55.7**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**8.4**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**84.9**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**170**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.40**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**3.1**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**29**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**2.1**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**65.7**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**210**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC04-2-4
SAMPLE

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 75.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/16/10	7440-36-0	Antimony	6	6	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**3.9**	
3050B	03/01/10	6010B	03/16/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/01/10	6010B	03/16/10	**7440-47-3**	**Chromium**	0.6	**11.9**	
3050B	03/01/10	6010B	03/16/10	**7440-48-4**	**Cobalt**	0.4	**5.0**	
3050B	03/01/10	6010B	03/16/10	**7440-50-8**	**Copper**	0.3	**15.6**	
3050B	03/01/10	6010B	03/16/10	**7439-92-1**	**Lead**	3	**28**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.02	**0.05**	
3050B	03/01/10	6010B	03/16/10	**7439-98-7**	**Molybdenum**	0.6	**1.2**	
3050B	03/01/10	6010B	03/16/10	**7440-02-0**	**Nickel**	1	**12**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/01/10	6010B	03/16/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/01/10	6010B	03/16/10	**7440-62-2**	**Vanadium**	0.4	**44.8**	
3050B	03/01/10	6010B	03/16/10	**7440-66-6**	**Zinc**	1	**57**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC04-2-4
DUPLICATE

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	6 U	6 U	0.0%	+/- 6	L
Arsenic	200.8	3.9	4.2	7.4%	+/- 20%	
Cadmium	6010B	0.3	0.3	0.0%	+/- 0.3	L
Chromium	6010B	11.9	11.6	2.6%	+/- 20%	
Cobalt	6010B	5.0	4.7	6.2%	+/- 20%	
Copper	6010B	15.6	15.8	1.3%	+/- 20%	
Lead	6010B	28	26	7.4%	+/- 20%	
Mercury	7471A	0.05	0.05	0.0%	+/- 0.02	L
Molybdenum	6010B	1.2	0.7	52.6%	+/- 0.6	L
Nickel	6010B	12	9	28.6%	+/- 20%	*
Selenium	200.8	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	6010B	0.4 U	0.4 U	0.0%	+/- 0.4	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Vanadium	6010B	44.8	41.8	6.9%	+/- 20%	
Zinc	6010B	57	52	9.2%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC05-0-2
SAMPLE

Lab Sample ID: QL56E
LIMS ID: 10-4781
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**8.7**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**18.8**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.1**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**28.9**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**19**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.06**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**1.0**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**44.1**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**67**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC05-2-4
SAMPLE

Lab Sample ID: QL56F
LIMS ID: 10-4782
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 77.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.7**	
3050B	03/01/10	6010B	03/17/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**11.1**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.2**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.2	**10.3**	
3050B	03/01/10	6010B	03/17/10	7439-92-1	Lead	2	2	U
CLP	03/01/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/01/10	6010B	03/17/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**42.7**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**24**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC06-0-2
SAMPLE

Lab Sample ID: QL56G
LIMS ID: 10-4783
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Percent Total Solids: 48.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	10	10	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**24.4**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**3.1**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	1	**72**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**10.5**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**130**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**197**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.90**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	1	**6**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**31**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**3.7**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**74.7**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**287**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC06-2-4
SAMPLE

Lab Sample ID: QL56H
LIMS ID: 10-4784
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Percent Total Solids: 47.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	10	10	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**13.6**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**3.6**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	1	**45**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**6.5**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**70.2**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**169**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.80**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	1	**9**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**20**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**1.8**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**60.8**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**253**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC07B-0.0-2.3
SAMPLE

Lab Sample ID: QM30A
LIMS ID: 10-5171
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 71.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**31.9**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.8**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**30.9**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**8.3**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**68.1**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**80**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.16**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.6	**2.7**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**24**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.4	**0.6**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**49.1**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**152**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC07B-2.3-4
SAMPLE

Lab Sample ID: QM30B
LIMS ID: 10-5172
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 77.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**9.0**	
3050B	03/04/10	6010B	03/19/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**12.7**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.6**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.2	**16.0**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	2	**13**	
CLP	03/04/10	7471A	03/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.6	**1.2**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**36.1**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**42**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC08-0-2
SAMPLE

Lab Sample ID: QL56I
LIMS ID: 10-4785
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Percent Total Solids: 49.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	9	9	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**18.5**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**2.1**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.9	**53.9**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**13.1**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**129**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**162**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.49**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.9	**3.7**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**1.6**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**82.9**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**321**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC08-2-4
SAMPLE

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Percent Total Solids: 47.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	10	10	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**22.5**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**5.6**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	1	**118**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**16.4**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**157**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**272**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**1.00**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	1	**7**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**62**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**5.8**	
3050B	03/01/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.5**	
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**84.3**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**382**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC10-0-2.4
SAMPLE

Lab Sample ID: QM30C
LIMS ID: 10-5173
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 60.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	8	8	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**19.8**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**1.0**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.8	**38.2**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**9.1**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**105**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**80**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.27**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.8	**1.8**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**26**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**0.8**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**62.5**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**168**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC10-2.4-4
SAMPLE

Lab Sample ID: QM30D
LIMS ID: 10-5174
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 69.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**10.2**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.8**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**25.2**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**5.7**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**45.0**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**52**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.22**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.7	**2.0**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**15**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.4	**0.6**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**48.3**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**86**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC11-0-2
SAMPLE

Lab Sample ID: QL56K
LIMS ID: 10-4787
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 54.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	9	9	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**19.9**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**1.4**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.9	**43.5**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**10.4**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**133**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**143**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.45**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.9	**2.6**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**29**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**1.3**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**74.7**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**198**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC11-2-4
SAMPLE

Lab Sample ID: QL56L
LIMS ID: 10-4788
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Percent Total Solids: 50.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	9	9	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**19.5**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**5.2**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.9	**105**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**12.8**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**159**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**249**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**1.26**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.9	**7.2**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**46**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**5.6**	
3050B	03/01/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.5**	
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**83.6**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**381**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC12-0-2
SAMPLE

Lab Sample ID: QM30E
LIMS ID: 10-5175
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 51.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	10	10	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**20.5**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**3.8**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	1	**78**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**12.3**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**180**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**215**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.84**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	1	**5**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**3.6**	
3050B	03/04/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.4**	
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**78.6**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**300**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC12-2-3.1
SAMPLE

Lab Sample ID: QM30F
LIMS ID: 10-5176
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 57.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	8	8	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**25.2**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**5.0**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.8	**81.4**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**11.6**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**212**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**259**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**3.20**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.8	**5.4**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**4.0**	
3050B	03/04/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.3	**0.4**	
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**72.7**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**364**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC13-0-1.6
SAMPLE

Lab Sample ID: QM80C
LIMS ID: 10-5593
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Percent Total Solids: 50.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	9	9	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**16.1**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**1.7**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.9	**51.2**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**11.6**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**127**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**113**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.49**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.9	**3.1**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**34**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**1.4**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**77.4**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**217**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC13-1.6-4
SAMPLE

Lab Sample ID: QM80D
LIMS ID: 10-5594
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Percent Total Solids: 90.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	5	5	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.4**	
3050B	03/09/10	6010B	03/17/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.5	**26.3**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.3	**6.5**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.2	**13.1**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	2	**3**	
CLP	03/09/10	7471A	03/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/09/10	6010B	03/17/10	7439-98-7	Molybdenum	0.5	0.5	U
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**36**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.5	0.5	U
3050B	03/09/10	6010B	03/17/10	7440-22-4	Silver	0.3	0.3	U
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.3	**37.1**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**31**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC15-0-2.3
SAMPLE

Lab Sample ID: QM30G
LIMS ID: 10-5177
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 58.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	8	8	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**16.7**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**2.2**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.8	**49.4**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**10.1**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**146**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**162**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.70**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.8	**2.7**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**31**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**1.7**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**69.4**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**211**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC15-2.3-4
SAMPLE

Lab Sample ID: QM30H
LIMS ID: 10-5178
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 74.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**4.8**	
3050B	03/04/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**22.0**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**6.9**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**23.0**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**6**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.02	**0.08**	
3050B	03/04/10	6010B	03/19/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**18**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**52.3**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**41**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC18-0-2
SAMPLE

Lab Sample ID: QM30I
LIMS ID: 10-5179
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 59.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	8	8	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**13.2**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**1.6**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.8	**44.0**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**9.2**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**373**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**161**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.58**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.8	**2.1**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**26**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**1.5**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**63.1**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**190**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC18-0-2
DUPLICATE

Lab Sample ID: QM30I
LIMS ID: 10-5179
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	8 U	8 U	0.0%	+/- 8	L
Arsenic	200.8	13.2	10.7	20.9%	+/- 20%	*
Cadmium	6010B	1.6	1.7	6.1%	+/- 20%	
Chromium	6010B	44.0	43.2	1.8%	+/- 20%	
Cobalt	6010B	9.2	9.0	2.2%	+/- 20%	
Copper	6010B	373	369	1.1%	+/- 20%	
Lead	6010B	161	155	3.8%	+/- 20%	
Mercury	7471A	0.58	0.55	5.3%	+/- 20%	
Molybdenum	6010B	2.1	2.1	0.0%	+/- 0.8	L
Nickel	6010B	26	25	3.9%	+/- 20%	
Selenium	200.8	0.8 U	0.8 U	0.0%	+/- 0.8	L
Silver	6010B	1.5	1.5	0.0%	+/- 0.5	L
Thallium	200.8	0.3 U	0.3 U	0.0%	+/- 0.3	L
Vanadium	6010B	63.1	62.8	0.5%	+/- 20%	
Zinc	6010B	190	186	2.1%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC18-2-4
SAMPLE

Lab Sample ID: QM30J
LIMS ID: 10-5180
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Percent Total Solids: 62.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	8	8	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**13.2**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**2.7**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.8	**53.4**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**9.6**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**112**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**166**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.65**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.8	**2.7**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**31**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**2.4**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**62.8**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**210**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: **EW10-SC19-0-2.5**
SAMPLE

Lab Sample ID: QL86A
LIMS ID: 10-4948
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 58.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**12.1**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**2.0**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**46.5**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**8.5**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**92.6**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**151**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.52**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**3.7**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**27**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**1.6**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**62.9**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**215**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC19-2.5-4
SAMPLE

Lab Sample ID: QL86B
LIMS ID: 10-4949
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 76.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.8**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**11.2**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.0**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**15.2**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**6**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.02	**0.02**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**40.4**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC20-0.4-2.4
SAMPLE

Lab Sample ID: QL86C
LIMS ID: 10-4950
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 74.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**4.4**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**26.0**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**7.3**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**29.0**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**8**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.10**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.6	**0.9**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**24**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**54.3**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**48**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC20-0.4-2.4
DUPLICATE

Lab Sample ID: QL86C
LIMS ID: 10-4950
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	6 U	6 U	0.0%	+/- 6	L
Arsenic	200.8	4.4	4.6	4.4%	+/- 20%	
Cadmium	6010B	0.3	0.3 U	0.0%	+/- 0.3	L
Chromium	6010B	26.0	22.9	12.7%	+/- 20%	
Cobalt	6010B	7.3	6.7	8.6%	+/- 20%	
Copper	6010B	29.0	26.4	9.4%	+/- 20%	
Lead	6010B	8	7	13.3%	+/- 3	L
Mercury	7471A	0.10	0.13	26.1%	+/- 0.03	L
Molybdenum	6010B	0.9	0.9	0.0%	+/- 0.6	L
Nickel	6010B	24	21	13.3%	+/- 20%	
Selenium	200.8	0.7 U	0.7 U	0.0%	+/- 0.7	L
Silver	6010B	0.4 U	0.4 U	0.0%	+/- 0.4	L
Thallium	200.8	0.3 U	0.3 U	0.0%	+/- 0.3	L
Vanadium	6010B	54.3	53.1	2.2%	+/- 20%	
Zinc	6010B	48	40	18.2%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC20-2.4-4.4
SAMPLE

Lab Sample ID: QL86D
LIMS ID: 10-4951
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 72.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**4.2**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**15.8**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.5**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**24.4**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.03**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**0.8**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**12**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**50.8**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**31**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC21-0-2
SAMPLE

Lab Sample ID: QL86E
LIMS ID: 10-4952
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 53.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	9	9	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**11.2**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**1.8**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.9	**46.1**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**9.1**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**104**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**89**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.45**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.9	**4.3**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**29**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**1.5**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**68.0**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**186**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC21-2-4
SAMPLE

Lab Sample ID: QL86F
LIMS ID: 10-4953
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 57.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**14.1**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**2.9**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**55.2**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**9.5**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**140**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**238**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.04	**0.73**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**4.6**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**3.1**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**66.0**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**303**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC23-0-1.3
SAMPLE

Lab Sample ID: QM57A
LIMS ID: 10-5375
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 71.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/18/10	7440-36-0	Antimony	7	7	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**6.9**	
3050B	03/08/10	6010B	03/18/10	**7440-43-9**	**Cadmium**	0.3	**1.7**	
3050B	03/08/10	6010B	03/18/10	**7440-47-3**	**Chromium**	0.7	**23.3**	
3050B	03/08/10	6010B	03/18/10	**7440-48-4**	**Cobalt**	0.4	**5.0**	
3050B	03/08/10	6010B	03/18/10	**7440-50-8**	**Copper**	0.3	**54.2**	
3050B	03/08/10	6010B	03/18/10	**7439-92-1**	**Lead**	3	**63**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.16**	
3050B	03/08/10	6010B	03/18/10	**7439-98-7**	**Molybdenum**	0.7	**2.3**	
3050B	03/08/10	6010B	03/18/10	**7440-02-0**	**Nickel**	1	**15**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/08/10	6010B	03/18/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/18/10	**7440-62-2**	**Vanadium**	0.4	**42.6**	
3050B	03/08/10	6010B	03/18/10	**7440-66-6**	**Zinc**	1	**247**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC23-1.3-3.2
SAMPLE

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 52.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/18/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**18.4**	
3050B	03/08/10	6010B	03/18/10	**7440-43-9**	**Cadmium**	0.4	**18.4**	
3050B	03/08/10	6010B	03/18/10	**7440-47-3**	**Chromium**	0.9	**131**	
3050B	03/08/10	6010B	03/18/10	**7440-48-4**	**Cobalt**	0.5	**9.9**	
3050B	03/08/10	6010B	03/18/10	**7440-50-8**	**Copper**	0.4	**271**	
3050B	03/08/10	6010B	03/18/10	**7439-92-1**	**Lead**	4	**455**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.64**	
3050B	03/08/10	6010B	03/18/10	**7439-98-7**	**Molybdenum**	0.9	**15.3**	
3050B	03/08/10	6010B	03/18/10	**7440-02-0**	**Nickel**	2	**52**	
3050B	03/08/10	200.8	03/26/10	**7782-49-2**	**Selenium**	0.9	**1.3**	
3050B	03/08/10	6010B	03/18/10	**7440-22-4**	**Silver**	0.5	**6.5**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.5**	
3050B	03/08/10	6010B	03/18/10	**7440-62-2**	**Vanadium**	0.5	**81.8**	
3050B	03/08/10	6010B	03/18/10	**7440-66-6**	**Zinc**	2	**2,280**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC26-0-2.7
SAMPLE

Lab Sample ID: QM57C
LIMS ID: 10-5377
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/04/10

Percent Total Solids: 78.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/18/10	7440-36-0	Antimony	6	6	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.3**	
3050B	03/08/10	6010B	03/18/10	**7440-43-9**	**Cadmium**	0.2	**0.3**	
3050B	03/08/10	6010B	03/18/10	**7440-47-3**	**Chromium**	0.6	**13.8**	
3050B	03/08/10	6010B	03/18/10	**7440-48-4**	**Cobalt**	0.4	**4.4**	
3050B	03/08/10	6010B	03/18/10	**7440-50-8**	**Copper**	0.2	**22.4**	
3050B	03/08/10	6010B	03/18/10	**7439-92-1**	**Lead**	2	**15**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.02	**0.03**	
3050B	03/08/10	6010B	03/18/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/08/10	6010B	03/18/10	**7440-02-0**	**Nickel**	1	**11**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/08/10	6010B	03/18/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/08/10	6010B	03/18/10	**7440-62-2**	**Vanadium**	0.4	**42.8**	
3050B	03/08/10	6010B	03/18/10	**7440-66-6**	**Zinc**	1	**44**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC26-2.7-4
SAMPLE

Lab Sample ID: QM57D
LIMS ID: 10-5378
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/04/10

Percent Total Solids: 75.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/18/10	7440-36-0	Antimony	6	6	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.6**	
3050B	03/08/10	6010B	03/18/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/08/10	6010B	03/18/10	**7440-47-3**	**Chromium**	0.6	**13.6**	
3050B	03/08/10	6010B	03/18/10	**7440-48-4**	**Cobalt**	0.4	**4.9**	
3050B	03/08/10	6010B	03/18/10	**7440-50-8**	**Copper**	0.2	**19.7**	
3050B	03/08/10	6010B	03/18/10	7439-92-1	Lead	2	2	U
CLP	03/08/10	7471A	03/09/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/08/10	6010B	03/18/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/08/10	6010B	03/18/10	**7440-02-0**	**Nickel**	1	**11**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/08/10	6010B	03/18/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/18/10	**7440-62-2**	**Vanadium**	0.4	**48.0**	
3050B	03/08/10	6010B	03/18/10	**7440-66-6**	**Zinc**	1	**28**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC26-2.7-4
DUPLICATE

Lab Sample ID: QM57D
LIMS ID: 10-5378
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/04/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	6 U	6 U	0.0%	+/- 6	L
Arsenic	200.8	2.6	2.7	3.8%	+/- 20%	
Cadmium	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L
Chromium	6010B	13.6	13.2	3.0%	+/- 20%	
Cobalt	6010B	4.9	4.8	2.1%	+/- 20%	
Copper	6010B	19.7	18.6	5.7%	+/- 20%	
Lead	6010B	2 U	2 U	0.0%	+/- 2	L
Mercury	7471A	0.03 U	0.03	0.0%	+/- 0.03	L
Molybdenum	6010B	0.6 U	0.6 U	0.0%	+/- 0.6	L
Nickel	6010B	11	10	9.5%	+/- 20%	
Selenium	200.8	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	6010B	0.4 U	0.4 U	0.0%	+/- 0.4	L
Thallium	200.8	0.3 U	0.3 U	0.0%	+/- 0.3	L
Vanadium	6010B	48.0	47.1	1.9%	+/- 20%	
Zinc	6010B	28	26	7.4%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC27-0-2
SAMPLE

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 45.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	10	10	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**19.0**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**11.3**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	1	**118**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**10.6**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**218**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**337**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.05	**1.16**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	1	**8**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**45**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**5.1**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.4**	
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**79.2**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**998**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC27-2-4
SAMPLE

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 49.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**31.9**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**9.8**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**97.4**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**11.2**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**210**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**525**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.81**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**9.1**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**46**	
3050B	03/08/10	200.8	03/26/10	**7782-49-2**	**Selenium**	1	**1**	
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**5.1**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.5**	
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**84.8**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**1,180**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC29-0-2
SAMPLE

Lab Sample ID: QM57W
LIMS ID: 10-5435
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 51.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**17.5**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**7.3**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**65.4**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**9.5**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**176**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**355**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**3.37**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**7.8**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**41**	
3050B	03/08/10	200.8	03/26/10	**7782-49-2**	**Selenium**	0.9	**0.9**	
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**5.5**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.4**	
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**81.2**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**854**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC29-2-3.9
SAMPLE

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 51.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**20.8**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**5.7**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**65.6**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**9.2**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**150**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**366**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**2.41**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**8.8**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**3.8**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.4**	
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**85.4**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**546**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC30-0-2
SAMPLE

Lab Sample ID: QM57G
LIMS ID: 10-5381
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 51.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**12.0**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**1.7**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**46.3**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**9.2**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**107**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**84**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.45**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**1.9**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**28**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**1.2**	
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**68.8**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**194**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC30-2-4.3
SAMPLE

Lab Sample ID: QM57H
LIMS ID: 10-5382
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 56.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**12.6**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**1.8**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**44.5**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**8.6**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**99.9**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**85**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.45**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**1.9**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**27**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**1.2**	
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**68.7**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**227**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC32-0-2
SAMPLE

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 49.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**17.4**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**6.2**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**84.2**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**11.4**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**151**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**256**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.39**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**4.2**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**43**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**4.1**	
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**80.2**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**625**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC32-2-4
SAMPLE

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 49.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	10	10	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**18.9**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**6.8**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	1	**67**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**10.6**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**183**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**439**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**3.03**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	1	**10**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**45**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**6.7**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.5**	
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**82.3**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**625**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC33-0-2
SAMPLE

Lab Sample ID: QM80A
LIMS ID: 10-5591
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Percent Total Solids: 56.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**14.1**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**5.3**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**75.4**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**10.8**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**146**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**216**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.95**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**5.8**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**3.0**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**69.1**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**578**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC33-2-3.5
SAMPLE

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Percent Total Solids: 55.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	9	9	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**20.4**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**4.3**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.9	**65.8**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**11.7**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**137**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**208**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.99**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.9	**4.4**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**2.9**	
3050B	03/09/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.3	**0.3**	
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**76.0**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**494**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC35-0-2
SAMPLE

Lab Sample ID: QL56M
LIMS ID: 10-4789
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/24/10
Date Received: 02/25/10

Percent Total Solids: 62.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**8.6**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**2.1**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**40.6**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**7.5**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**73.6**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**73**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.38**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**2.3**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**25**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/01/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**0.9**	
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**59.4**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**191**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC35-2-4
SAMPLE

Lab Sample ID: QL56N
LIMS ID: 10-4790
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/24/10
Date Received: 02/25/10

Percent Total Solids: 76.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**3.1**	
3050B	03/01/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.2	**0.4**	
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**16.3**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.6**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.2	**24.3**	
3050B	03/01/10	6010B	03/17/10	**7439-92-1**	**Lead**	2	**8**	
CLP	03/01/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.02	**0.04**	
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**10**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**47.6**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**39**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC37-0-2
SAMPLE

Lab Sample ID: QL86G
LIMS ID: 10-4954
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 69.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**5.3**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.7**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**20.9**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.3**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**34.6**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**25**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.02	**0.14**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**1.3**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**49.9**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**60**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC37-2-3.9
SAMPLE

Lab Sample ID: QL86H
LIMS ID: 10-4955
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 73.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.8**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**12.4**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.4**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**16.2**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/02/10	6010B	03/17/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**46.4**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**25**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC38-0-0.8
SAMPLE

Lab Sample ID: QL86I
LIMS ID: 10-4956
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 72.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.0**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**15.0**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.3**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**23.9**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**11**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**51.3**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC38-0.8-2
SAMPLE

Lab Sample ID: QL86J
LIMS ID: 10-4957
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.4**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**12.5**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.2**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**16.2**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/02/10	6010B	03/17/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**43.1**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**23**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC41-0-0.6
SAMPLE

Lab Sample ID: QL560
LIMS ID: 10-4791
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.9**	
3050B	03/01/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**12.6**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.5**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**15.7**	
3050B	03/01/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/01/10	7471A	03/03/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/01/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**0.7**	
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**44.2**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC41-0.6-2
SAMPLE

Lab Sample ID: QL56P
LIMS ID: 10-4792
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Percent Total Solids: 75.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.7**	
3050B	03/01/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**11.2**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.3**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**14.0**	
3050B	03/01/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/01/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/01/10	6010B	03/17/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**42.7**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**24**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC43-0-1.3
SAMPLE

Lab Sample ID: QL86K
LIMS ID: 10-4958
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 66.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**9.9**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**1.1**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**33.7**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**7.4**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**57.5**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**63**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.31**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**2.5**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**23**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.4	**1.1**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**60.9**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**111**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC43-1.3-4
SAMPLE

Lab Sample ID: QL86L
LIMS ID: 10-4959
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 69.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**5.0**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.6**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**20.6**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.0**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**33.4**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**31**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.19**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**3.2**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.4	**0.8**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**45.8**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**81**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC45-0-1
SAMPLE

Lab Sample ID: QL56Q
LIMS ID: 10-4793
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Percent Total Solids: 79.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.0**	
3050B	03/01/10	6010B	03/17/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**8.9**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**3.7**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.2	**10.3**	
3050B	03/01/10	6010B	03/17/10	7439-92-1	Lead	2	2	U
CLP	03/01/10	7471A	03/03/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/01/10	6010B	03/17/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**7**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**36.6**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**21**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC45-1-1.7
SAMPLE

Lab Sample ID: QL56R
LIMS ID: 10-4794
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Percent Total Solids: 71.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/01/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/01/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.6**	
3050B	03/01/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**13.1**	
3050B	03/01/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.4**	
3050B	03/01/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**18.9**	
3050B	03/01/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/01/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/01/10	6010B	03/17/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/01/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/01/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/01/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/01/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/01/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**47.6**	
3050B	03/01/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**26**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC46-0-2.3
SAMPLE

Lab Sample ID: QL86M
LIMS ID: 10-4960
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 71.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.8**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**16.8**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.4**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**23.4**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**5**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.06**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**0.8**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**49.7**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**36**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC46-2.3-4
SAMPLE

Lab Sample ID: QL86N
LIMS ID: 10-4961
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 73.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.7**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**11.5**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.5**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**14.9**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/02/10	6010B	03/17/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**41.7**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**23**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC48-0-2
SAMPLE

Lab Sample ID: QM80E
LIMS ID: 10-5595
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 59.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**12.9**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**2.1**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**52.0**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**9.5**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**98.6**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**114**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.49**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**3.5**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**30**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**1.6**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**62.9**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**168**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC48-2-4.7
SAMPLE

Lab Sample ID: QM80F
LIMS ID: 10-5596
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 56.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**23.3**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**5.5**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**83.9**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**10.3**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**157**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**239**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.40**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**6.0**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**38**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**4.9**	
3050B	03/09/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.3	**0.4**	
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**72.9**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**321**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC50-0-1.6
SAMPLE

Lab Sample ID: QM80G
LIMS ID: 10-5597
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 61.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**26.2**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**2.7**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**39.7**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**9.9**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**121**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**1,210**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.47**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**3.1**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**56**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**0.7**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**70.9**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**884**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC50-0-1.6
DUPLICATE

Lab Sample ID: QM80G
LIMS ID: 10-5597
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	8 U	8 U	0.0%	+/- 8	L
Arsenic	200.8	26.2	18.1	36.6%	+/- 20%	*
Cadmium	6010B	2.7	2.8	3.6%	+/- 20%	
Chromium	6010B	39.7	35.2	12.0%	+/- 20%	
Cobalt	6010B	9.9	9.8	1.0%	+/- 20%	
Copper	6010B	121	175	36.5%	+/- 20%	*
Lead	6010B	1,210	1,690	33.1%	+/- 20%	*
Mercury	7471A	1.47	2.70	59.0%	+/- 20%	*
Molybdenum	6010B	3.1	3.2	3.2%	+/- 0.8	L
Nickel	6010B	56	53	5.5%	+/- 20%	
Selenium	200.8	0.7 U	0.8 U	0.0%	+/- 0.7	L
Silver	6010B	0.7	1.1	44.4%	+/- 0.5	L
Thallium	200.8	0.3 U	0.3 U	0.0%	+/- 0.3	L
Vanadium	6010B	70.9	70.1	1.1%	+/- 20%	
Zinc	6010B	884	1,160	27.0%	+/- 20%	*

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC50-1.6-4
SAMPLE

Lab Sample ID: QM80H
LIMS ID: 10-5598
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 69.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**4.7**	
3050B	03/09/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**18.3**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**6.3**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**22.8**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**9**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.02	**0.11**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**0.9**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**15**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/09/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**48.2**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**37**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC51-0-2
SAMPLE

Lab Sample ID: QM57K
LIMS ID: 10-5423
Matrix: Sediment
Data Release Authorized
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.3**	
3050B	03/08/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**13.8**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.8**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**21.6**	
3050B	03/08/10	6010B	03/19/10	7439-92-1	Lead	3	3	U
CLP	03/08/10	7471A	03/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/08/10	6010B	03/19/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/08/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**48.6**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC51-2-3.8
SAMPLE

Lab Sample ID: QM57L
LIMS ID: 10-5424
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Percent Total Solids: 72.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.4**	
3050B	03/08/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**14.6**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**5.1**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**20.5**	
3050B	03/08/10	6010B	03/19/10	7439-92-1	Lead	3	3	U
CLP	03/08/10	7471A	03/09/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/08/10	6010B	03/19/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**10**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/08/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**50.1**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**28**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC52-0-2
SAMPLE

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 59.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**14.9**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**4.2**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**116**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**10.8**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**145**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**229**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.64**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**5.9**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**46**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**3.8**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**73.0**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**280**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC52-2-4
SAMPLE

Lab Sample ID: QM80J
LIMS ID: 10-5600
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 67.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**5.7**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**14.5**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.3**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**21.9**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**164**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.08**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**2.1**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**10**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/09/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**47.1**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**45**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC53-0-2
SAMPLE

Lab Sample ID: QM80K
LIMS ID: 10-5601
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 65.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**9.3**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.8**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**33.9**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**8.2**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**67.9**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**65**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.31**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**2.1**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**24**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.4	**0.7**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**57.3**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**105**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC53-2-4
SAMPLE

Lab Sample ID: QM80L
LIMS ID: 10-5602
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 67.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**7.8**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**1.0**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**33.7**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**8.1**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**47.0**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**43**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.34**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**1.8**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**23**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.4	**0.7**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**58.9**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**82**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC54-0-2
SAMPLE

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 65.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	**7440-36-0**	**Antimony**	7	**8**	
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**26.7**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**3.1**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**129**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**11.9**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**293**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**535**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.58**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**10.0**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**86**	
3050B	03/09/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.4	**2.3**	
3050B	03/09/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**61.8**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**664**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC54-2-4
SAMPLE

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Percent Total Solids: 51.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/09/10	6010B	03/17/10	7440-36-0	Antimony	10	10	U
3050B	03/09/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**20.0**	
3050B	03/09/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.4	**6.2**	
3050B	03/09/10	6010B	03/17/10	**7440-47-3**	**Chromium**	1	**80**	
3050B	03/09/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.6	**10.0**	
3050B	03/09/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.4	**208**	
3050B	03/09/10	6010B	03/17/10	**7439-92-1**	**Lead**	4	**394**	
CLP	03/09/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.83**	
3050B	03/09/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	1	**28**	
3050B	03/09/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**47**	
3050B	03/09/10	200.8	03/26/10	**7782-49-2**	**Selenium**	0.9	**1.4**	
3050B	03/09/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.6	**3.5**	
3050B	03/09/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.6**	
3050B	03/09/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.6	**89.6**	
3050B	03/09/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**591**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC55-0-2
SAMPLE

Lab Sample ID: QL860
LIMS ID: 10-4962
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 73.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**4.6**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**19.8**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.3**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**28.1**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**18**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.02	**0.14**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.6	**1.0**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**16**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**45.5**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**79**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC55-2-4
SAMPLE

Lab Sample ID: QL86P
LIMS ID: 10-4963
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**2.7**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**12.3**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.4**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**18.2**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.03**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**0.7**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**43.2**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC57-0-2
SAMPLE

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 75.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**10.2**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.5**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**16.9**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.9**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**48.7**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**80**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.17**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.6	**1.5**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**11**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.4	**0.8**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**43.6**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**74**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC57-2-4
SAMPLE

Lab Sample ID: QM30P
LIMS ID: 10-5186
Matrix: Sediment
Data Release Authorized
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 82.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**1.6**	
3050B	03/04/10	6010B	03/19/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**10.0**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**3.8**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.2	**7.9**	
3050B	03/04/10	6010B	03/19/10	7439-92-1	Lead	2	2	U
CLP	03/04/10	7471A	03/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/04/10	6010B	03/19/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**7**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**34.8**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**19**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC58-0-1.8
SAMPLE

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 48.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	10	10	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**56.7**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**3.5**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	1	**90**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**10.1**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**442**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**434**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.23**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	1	**7**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**35**	
3050B	03/04/10	200.8	03/26/10	**7782-49-2**	**Selenium**	1	**1**	
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**4.3**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**73.4**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**459**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC58-1.8-4
SAMPLE

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 70.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**4.7**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**17.3**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**5.4**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**46.8**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**50**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.19**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.6	**1.6**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**14**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**46.1**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**62**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC59-0-2
SAMPLE

Lab Sample ID: QM30M
LIMS ID: 10-5183
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 76.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.4**	
3050B	03/04/10	6010B	03/19/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**11.7**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.2**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.2	**14.7**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	2	**16**	
CLP	03/04/10	7471A	03/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/04/10	6010B	03/19/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**38.6**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**24**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC59-2-4
SAMPLE

Lab Sample ID: QM30N
LIMS ID: 10-5184
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 72.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.2**	
3050B	03/04/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**14.7**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.9**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**19.9**	
3050B	03/04/10	6010B	03/19/10	7439-92-1	Lead	3	3	U
CLP	03/04/10	7471A	03/09/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/04/10	6010B	03/19/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**10**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**45.2**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC60-0-0.8
SAMPLE

Lab Sample ID: QM30Q
LIMS ID: 10-5187
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 63.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**12.1**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.7**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**24.5**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**6.1**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**60.8**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**70**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.69**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.7	**1.8**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**16**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.4	**0.7**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**48.0**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**92**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC60-0.8-3
SAMPLE

Lab Sample ID: QM30R
LIMS ID: 10-5188
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 72.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.0**	
3050B	03/04/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**11.9**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.3**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**16.1**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**7**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.03**	
3050B	03/04/10	6010B	03/19/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**39.6**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC61-0-1
SAMPLE

Lab Sample ID: QM30S
LIMS ID: 10-5189
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 68.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**8.0**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.5**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**27.0**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**6.7**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**47.2**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**44**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.27**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.7	**1.4**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**21**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.4	**0.4**	
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**50.1**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**76**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC61-1-3
SAMPLE

Lab Sample ID: QM30T
LIMS ID: 10-5190
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Percent Total Solids: 72.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/04/10	6010B	03/19/10	7440-36-0	Antimony	6	6	U
3050B	03/04/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**4.7**	
3050B	03/04/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/04/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.6	**18.3**	
3050B	03/04/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**5.5**	
3050B	03/04/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**25.7**	
3050B	03/04/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**13**	
CLP	03/04/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.02	**0.07**	
3050B	03/04/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.6	**1.1**	
3050B	03/04/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/04/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/04/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/04/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/04/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**46.5**	
3050B	03/04/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**38**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC63-0-2
SAMPLE

Lab Sample ID: QM57M
LIMS ID: 10-5425
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Percent Total Solids: 71.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.0**	
3050B	03/08/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**13.6**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**4.5**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**15.6**	
3050B	03/08/10	6010B	03/19/10	7439-92-1	Lead	3	3	U
CLP	03/08/10	7471A	03/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/08/10	6010B	03/19/10	7439-98-7	Molybdenum	0.7	0.7	U
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/08/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**45.7**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**26**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC63-2-4
SAMPLE

Lab Sample ID: QM57N
LIMS ID: 10-5426
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Percent Total Solids: 69.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	7	7	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.4**	
3050B	03/08/10	6010B	03/19/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.7	**16.1**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.4	**5.0**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**20.6**	
3050B	03/08/10	6010B	03/19/10	7439-92-1	Lead	3	3	U
CLP	03/08/10	7471A	03/09/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.7	**0.7**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	1	**11**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/08/10	6010B	03/19/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.4	**48.8**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	1	**28**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC201-0-2.5
SAMPLE

Lab Sample ID: QL86Q
LIMS ID: 10-4964
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 61.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	8	8	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**13.8**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**2.1**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.8	**48.2**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.5	**8.3**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**99.0**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**157**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.62**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.8	**4.0**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	2	**28**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.5	**1.9**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.5	**61.2**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	2	**283**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC201-2.5-4
SAMPLE

Lab Sample ID: QL86R
LIMS ID: 10-4965
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Percent Total Solids: 77.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.2	**2.4**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**11.9**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.1**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.2	**14.0**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	2	**6**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.03**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**41.1**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**27**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC202-0-2
SAMPLE

Lab Sample ID: QL86S
LIMS ID: 10-4966
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 70.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	7	7	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**5.3**	
3050B	03/02/10	6010B	03/17/10	**7440-43-9**	**Cadmium**	0.3	**0.7**	
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.7	**21.8**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**5.4**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**35.4**	
3050B	03/02/10	6010B	03/17/10	**7439-92-1**	**Lead**	3	**28**	
CLP	03/02/10	7471A	03/03/10	**7439-97-6**	**Mercury**	0.03	**0.16**	
3050B	03/02/10	6010B	03/17/10	**7439-98-7**	**Molybdenum**	0.7	**1.4**	
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/02/10	6010B	03/17/10	**7440-22-4**	**Silver**	0.4	**0.4**	
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**50.7**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**64**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC202-2-3.9
SAMPLE

Lab Sample ID: QL86T
LIMS ID: 10-4967
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Percent Total Solids: 73.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/02/10	6010B	03/17/10	7440-36-0	Antimony	6	6	U
3050B	03/02/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**3.0**	
3050B	03/02/10	6010B	03/17/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-47-3**	**Chromium**	0.6	**12.3**	
3050B	03/02/10	6010B	03/17/10	**7440-48-4**	**Cobalt**	0.4	**4.2**	
3050B	03/02/10	6010B	03/17/10	**7440-50-8**	**Copper**	0.3	**15.3**	
3050B	03/02/10	6010B	03/17/10	7439-92-1	Lead	3	3	U
CLP	03/02/10	7471A	03/03/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/02/10	6010B	03/17/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/02/10	6010B	03/17/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/02/10	200.8	03/26/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/02/10	6010B	03/17/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/02/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/02/10	6010B	03/17/10	**7440-62-2**	**Vanadium**	0.4	**45.1**	
3050B	03/02/10	6010B	03/17/10	**7440-66-6**	**Zinc**	1	**25**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC203-0-2
SAMPLE

Lab Sample ID: QM57S
LIMS ID: 10-5431
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 51.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**12.2**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**1.7**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**46.0**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**8.9**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**106**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**81**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**0.61**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**1.8**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**27**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**1.1**	
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**69.6**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**195**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC203-2-4.3
SAMPLE

Lab Sample ID: QM57T
LIMS ID: 10-5432
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 56.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	9	9	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.3	**12.2**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.3	**1.7**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	0.9	**47.4**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.5	**8.6**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.3	**105**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	3	**90**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.03	**0.44**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	0.9	**1.9**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**28**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.5	**1.1**	
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.5	**68.0**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**228**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC204-0-2
SAMPLE

Lab Sample ID: QM57U
LIMS ID: 10-5433
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 49.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	10	10	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**15.9**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**6.1**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	1	**86**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**11.2**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**148**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**279**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**1.15**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	1	**5**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**43**	
3050B	03/08/10	200.8	03/26/10	7782-49-2	Selenium	1	1	U
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**4.3**	
3050B	03/08/10	200.8	03/26/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**76.7**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**572**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC204-2-4
SAMPLE

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Data Release Authorized
Reported: 03/30/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Percent Total Solids: 49.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/10	6010B	03/19/10	7440-36-0	Antimony	10	10	U
3050B	03/08/10	200.8	03/26/10	**7440-38-2**	**Arsenic**	0.4	**19.8**	
3050B	03/08/10	6010B	03/19/10	**7440-43-9**	**Cadmium**	0.4	**6.9**	
3050B	03/08/10	6010B	03/19/10	**7440-47-3**	**Chromium**	1	**66**	
3050B	03/08/10	6010B	03/19/10	**7440-48-4**	**Cobalt**	0.6	**10.8**	
3050B	03/08/10	6010B	03/19/10	**7440-50-8**	**Copper**	0.4	**201**	
3050B	03/08/10	6010B	03/19/10	**7439-92-1**	**Lead**	4	**429**	
CLP	03/08/10	7471A	03/09/10	**7439-97-6**	**Mercury**	0.04	**2.87**	
3050B	03/08/10	6010B	03/19/10	**7439-98-7**	**Molybdenum**	1	**10**	
3050B	03/08/10	6010B	03/19/10	**7440-02-0**	**Nickel**	2	**44**	
3050B	03/08/10	200.8	03/26/10	**7782-49-2**	**Selenium**	1	**1**	
3050B	03/08/10	6010B	03/19/10	**7440-22-4**	**Silver**	0.6	**6.8**	
3050B	03/08/10	200.8	03/26/10	**7440-28-0**	**Thallium**	0.4	**0.5**	
3050B	03/08/10	6010B	03/19/10	**7440-62-2**	**Vanadium**	0.6	**81.6**	
3050B	03/08/10	6010B	03/19/10	**7440-66-6**	**Zinc**	2	**621**	

U-Analyte undetected at given RL
RL-Reporting Limit

ORGANOMETALS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC06-0-2
SAMPLE

Lab Sample ID: QM68E
LIMS ID: 10-5468
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 16:47
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.51 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 51.3%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.5**	**63**	
14488-53-0	**Dibutyltin Ion**	**5.2**	**15**	
78763-54-9	Butyltin Ion	3.7	< 3.7	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	31.8%
Tripentyl Tin Chloride	44.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC06-2-4
SAMPLE

Lab Sample ID: QM68F
LIMS ID: 10-5469
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 17:00
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.41 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 54.0%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.6**	**4.5**	
14488-53-0	Dibutyltin Ion	5.3	< 5.3	U
78763-54-9	Butyltin Ion	3.8	< 3.8	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	44.8%
Tripentyl Tin Chloride	58.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC10-0-2.4
SAMPLE

Lab Sample ID: QM68M
LIMS ID: 10-5476
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 18:32
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.43 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 40.1%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.6	120	
14488-53-0	Dibutyltin Ion	5.3	20	
78763-54-9	Butyltin Ion	3.8	4.8	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	48.3%
Tripentyl Tin Chloride	65.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC10-2.4-4
SAMPLE

Lab Sample ID: QM68N
LIMS ID: 10-5477
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 18:45
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 6.04 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 28.9%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.2**	**11**	
14488-53-0	Dibutyltin Ion	4.8	< 4.8	U
78763-54-9	Butyltin Ion	3.4	< 3.4	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	52.2%
Tripentyl Tin Chloride	69.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC18-0-2
SAMPLE

Lab Sample ID: QM68O
LIMS ID: 10-5478
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 18:58
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.38 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 40.5%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.6**	**160**	
14488-53-0	**Dibutyltin Ion**	**5.4**	**16**	
78763-54-9	Butyltin Ion	3.8	< 3.8	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	63.1%
Tripentyl Tin Chloride	61.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC18-2-4
SAMPLE

Lab Sample ID: QM68P
LIMS ID: 10-5479
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 19:11
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.83 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 37.6%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.3**	**28**	
14488-53-0	**Dibutyltin Ion**	**5.0**	**7.1**	
78763-54-9	Butyltin Ion	3.5	< 3.5	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	53.6%
Tripentyl Tin Chloride	55.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC37-0-2
SAMPLE

Lab Sample ID: QM68G
LIMS ID: 10-5470
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 17:13
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.50 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 27.5%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.5**	**13**	
14488-53-0	Dibutyltin Ion	5.2	< 5.2	U
78763-54-9	Butyltin Ion	3.7	< 3.7	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	61.9%
Tripentyl Tin Chloride	77.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC37-2-3.9
SAMPLE

Lab Sample ID: QM68H
LIMS ID: 10-5471
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 17:26
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.53 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 24.8%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.5	< 3.5	U
14488-53-0	Dibutyltin Ion	5.2	< 5.2	U
78763-54-9	Butyltin Ion	3.7	< 3.7	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	60.1%
Tripentyl Tin Chloride	114%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC43-0-1.3
SAMPLE

Lab Sample ID: QM68I
LIMS ID: 10-5472
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 17:39
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.33 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 34.7%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.6**	**110**	
14488-53-0	**Dibutyltin Ion**	**5.4**	**14**	
78763-54-9	Butyltin Ion	3.8	< 3.8	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	43.6%
Tripentyl Tin Chloride	58.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC43-1.3-4
SAMPLE

Lab Sample ID: QM68J
LIMS ID: 10-5473
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 17:52
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 6.38 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 28.9%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.0	< 3.0	U
14488-53-0	Dibutyltin Ion	4.5	< 4.5	U
78763-54-9	Butyltin Ion	3.2	< 3.2	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	57.2%
Tripentyl Tin Chloride	77.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC46-0-2.3
SAMPLE

Lab Sample ID: QM68K
LIMS ID: 10-5474
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 18:05
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.58 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 28.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.5	< 3.5	U
14488-53-0	Dibutyltin Ion	5.2	< 5.2	U
78763-54-9	Butyltin Ion	3.7	< 3.7	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	67.9%
Tripentyl Tin Chloride	71.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC46-2.3-4
SAMPLE

Lab Sample ID: QM68L
LIMS ID: 10-5475
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 18:19
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.65 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 25.7%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.4	< 3.4	U
14488-53-0	Dibutyltin Ion	5.1	< 5.1	U
78763-54-9	Butyltin Ion	3.6	< 3.6	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	67.9%
Tripentyl Tin Chloride	67.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC59-0-2
SAMPLE

Lab Sample ID: QM68Q
LIMS ID: 10-5480
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 19:24
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.81 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 26.2%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.3	< 3.3	U
14488-53-0	Dibutyltin Ion	5.0	< 5.0	U
78763-54-9	Butyltin Ion	3.5	< 3.5	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	67.6%
Tripentyl Tin Chloride	111%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC59-2-4
SAMPLE

Lab Sample ID: QM68R
LIMS ID: 10-5481
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 19:37
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.81 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 25.7%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.3	< 3.3	U
14488-53-0	Dibutyltin Ion	5.0	< 5.0	U
78763-54-9	Butyltin Ion	3.5	< 3.5	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	61.4%
Tripentyl Tin Chloride	78.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC100-0-1.1
SAMPLE

Lab Sample ID: QM68C
LIMS ID: 10-5466
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 16:21
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.23 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 42.8%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.7**	**240**	
14488-53-0	**Dibutyltin Ion**	**5.5**	**23**	
78763-54-9	Butyltin Ion	3.9	< 3.9	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	53.9%
Tripentyl Tin Chloride	74.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC100-1.1-3
SAMPLE

Lab Sample ID: QM68D
LIMS ID: 10-5467
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 16:34
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.98 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 23.6%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.2	< 3.2	U
14488-53-0	Dibutyltin Ion	4.8	< 4.8	U
78763-54-9	Butyltin Ion	3.4	< 3.4	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	68.2%
Tripentyl Tin Chloride	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC101-0-2.3
SAMPLE

Lab Sample ID: QM68A
LIMS ID: 10-5464
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 15:28
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.30 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 25.9%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.6**	**6.9**	
14488-53-0	Dibutyltin Ion	5.4	< 5.4	U
78763-54-9	Butyltin Ion	3.8	< 3.8	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	78.3%
Tripentyl Tin Chloride	76.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: EW10-SC101-2.3-4
SAMPLE

Lab Sample ID: QM68B
LIMS ID: 10-5465
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QM68-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 04/01/10
Date Analyzed: 04/03/10 16:08
Instrument/Analyst: NT8/YZ
Silica Gel Cleanup: No

Sample Amount: 5.36 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 25.1%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.6	< 3.6	U
14488-53-0	Dibutyltin Ion	5.4	< 5.4	U
78763-54-9	Butyltin Ion	3.8	< 3.8	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	63.3%
Tripentyl Tin Chloride	74.0%

SVOCs

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC03-0-2
SAMPLE

Lab Sample ID: QL56A
LIMS ID: 10-4777
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 20:19
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 18.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 35.0%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**28**	**24 J**
111-44-4	Bis-(2-Chloroethyl) Ether	28	< 28 U
95-57-8	2-Chlorophenol	28	< 28 U
541-73-1	1,3-Dichlorobenzene	28	< 28 U
106-46-7	1,4-Dichlorobenzene	28	< 28 U
100-51-6	Benzyl Alcohol	28	< 28 U
95-50-1	1,2-Dichlorobenzene	28	< 28 U
95-48-7	2-Methylphenol	28	< 28 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	28	< 28 U
106-44-5	4-Methylphenol	28	< 28 U
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	28	< 28 U
98-95-3	Nitrobenzene	28	< 28 U
78-59-1	Isophorone	28	< 28 U
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	28	< 28 U
65-85-0	Benzoic Acid	280	< 280 U
111-91-1	bis(2-Chloroethoxy) Methane	28	< 28 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	28	< 28 U
91-20-3	**Naphthalene**	**28**	**50**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	28	< 28 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**28**	**17 J**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	28	< 28 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	Dimethylphthalate	28	< 28 U
208-96-8	**Acenaphthylene**	**28**	**21 J**
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**28**	**19 J**
51-28-5	2,4-Dinitrophenol	280	< 280 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	**Dibenzofuran**	**28**	**17 J**
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	28	< 28 U
7005-72-3	4-Chlorophenyl-phenylether	28	< 28 U
86-73-7	**Fluorene**	**28**	**40**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	280	< 280 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC03-0-2
SAMPLE

Lab Sample ID: QL56A
LIMS ID: 10-4777
Matrix: Sediment
Date Analyzed: 03/08/10 20:19

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	28	< 28 U
101-55-3	4-Bromophenyl-phenylether	28	< 28 U
118-74-1	Hexachlorobenzene	28	< 28 U
87-86-5	Pentachlorophenol	140	< 140 U
85-01-8	**Phenanthrene**	**28**	**190**
86-74-8	**Carbazole**	**28**	**24 J**
120-12-7	**Anthracene**	**28**	**150**
84-74-2	Di-n-Butylphthalate	28	< 28 U
206-44-0	**Fluoranthene**	**28**	**490**
129-00-0	**Pyrene**	**28**	**560**
85-68-7	Butylbenzylphthalate	28	< 28 U
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**28**	**320**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**28**	**340 B**
218-01-9	**Chrysene**	**28**	**830**
117-84-0	Di-n-Octyl phthalate	28	< 28 U
205-99-2	**Benzo(b)fluoranthene**	**28**	**270**
207-08-9	**Benzo(k)fluoranthene**	**28**	**270**
50-32-8	**Benzo(a)pyrene**	**28**	**290**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**28**	**120**
53-70-3	**Dibenz(a,h)anthracene**	**28**	**61**
191-24-2	**Benzo(g,h,i)perylene**	**28**	**120**
62-53-3	Aniline	28	< 28 U
90-12-0	1-Methylnaphthalene	28	< 28 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.2%	2-Fluorobiphenyl	65.6%
d14-p-Terphenyl	66.0%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	69.9%	2-Fluorophenol	54.1%
2,4,6-Tribromophenol	82.9%	d4-2-Chlorophenol	58.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC03-2-4
SAMPLE

Lab Sample ID: QL56B
LIMS ID: 10-4778
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 20:51
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 12.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC03-2-4
SAMPLE

Lab Sample ID: QL56B
LIMS ID: 10-4778
Matrix: Sediment
Date Analyzed: 03/08/10 20:51

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**170 B**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.4%	2-Fluorobiphenyl	61.2%
d14-p-Terphenyl	67.6%	d4-1,2-Dichlorobenzene	51.6%
d5-Phenol	65.1%	2-Fluorophenol	54.7%
2,4,6-Tribromophenol	66.1%	d4-2-Chlorophenol	54.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC04-0-2
SAMPLE

Lab Sample ID: QL56C
LIMS ID: 10-4779
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 21:23
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 18.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**27**	**47**
111-44-4	Bis-(2-Chloroethyl) Ether	27	< 27 U
95-57-8	2-Chlorophenol	27	< 27 U
541-73-1	1,3-Dichlorobenzene	27	< 27 U
106-46-7	**1,4-Dichlorobenzene**	**27**	**16 J**
100-51-6	Benzyl Alcohol	27	< 27 U
95-50-1	1,2-Dichlorobenzene	27	< 27 U
95-48-7	2-Methylphenol	27	< 27 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	27	< 27 U
106-44-5	**4-Methylphenol**	**27**	**15 J**
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	27	< 27 U
98-95-3	Nitrobenzene	27	< 27 U
78-59-1	Isophorone	27	< 27 U
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	27	< 27 U
65-85-0	Benzoic Acid	270	< 270 U
111-91-1	bis(2-Chloroethoxy) Methane	27	< 27 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	27	< 27 U
91-20-3	**Naphthalene**	**27**	**37**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	27	< 27 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**27**	**22 J**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	27	< 27 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	**Dimethylphthalate**	**27**	**500**
208-96-8	**Acenaphthylene**	**27**	**27**
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**27**	**70**
51-28-5	2,4-Dinitrophenol	270	< 270 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	**Dibenzofuran**	**27**	**25 J**
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	27	< 27 U
7005-72-3	4-Chlorophenyl-phenylether	27	< 27 U
86-73-7	**Fluorene**	**27**	**55**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	270	< 270 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC04-0-2
SAMPLE

Lab Sample ID: QL56C
LIMS ID: 10-4779
Matrix: Sediment
Date Analyzed: 03/08/10 21:23

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	27	< 27 U
101-55-3	4-Bromophenyl-phenylether	27	< 27 U
118-74-1	Hexachlorobenzene	27	< 27 U
87-86-5	Pentachlorophenol	140	< 140 U
85-01-8	**Phenanthrene**	**27**	**280**
86-74-8	**Carbazole**	**27**	**54**
120-12-7	**Anthracene**	**27**	**120**
84-74-2	Di-n-Butylphthalate	27	< 27 U
206-44-0	**Fluoranthene**	**27**	**1,200**
129-00-0	**Pyrene**	**27**	**870**
85-68-7	**Butylbenzylphthalate**	**27**	**21 J**
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**27**	**460**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**27**	**510 B**
218-01-9	**Chrysene**	**27**	**590**
117-84-0	Di-n-Octyl phthalate	27	< 27 U
205-99-2	**Benzo(b)fluoranthene**	**27**	**340**
207-08-9	**Benzo(k)fluoranthene**	**27**	**340**
50-32-8	**Benzo(a)pyrene**	**27**	**330**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**27**	**130**
53-70-3	**Dibenz(a,h)anthracene**	**27**	**70**
191-24-2	**Benzo(g,h,i)perylene**	**27**	**120**
62-53-3	Aniline	27	< 27 U
90-12-0	**1-Methylnaphthalene**	**27**	**15 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	71.2%	d4-1,2-Dichlorobenzene	56.8%
d5-Phenol	75.2%	2-Fluorophenol	60.8%
2,4,6-Tribromophenol	89.3%	d4-2-Chlorophenol	62.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC04-2-4
SAMPLE

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 21:54
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	**Benzoic Acid**	**190**	**47 J**
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**340**
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	**2-Methylnaphthalene**	**19**	**280**
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	**Acenaphthene**	**19**	**340**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	**Dibenzofuran**	**19**	**150**
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**460**
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC04-2-4
SAMPLE

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Date Analyzed: 03/08/10 21:54

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**1,800 E**
86-74-8	**Carbazole**	**19**	**220**
120-12-7	**Anthracene**	**19**	**610**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**1,600 E**
129-00-0	**Pyrene**	**19**	**1,300**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**670**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**210 B**
218-01-9	**Chrysene**	**19**	**720**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**430**
207-08-9	**Benzo(k)fluoranthene**	**19**	**430**
50-32-8	**Benzo(a)pyrene**	**19**	**670**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**290**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**140**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**310**
62-53-3	Aniline	19	< 19 U
90-12-0	**1-Methylnaphthalene**	**19**	**230**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.0%	2-Fluorobiphenyl	83.2%
d14-p-Terphenyl	81.2%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	88.3%	2-Fluorophenol	68.8%
2,4,6-Tribromophenol	102%	d4-2-Chlorophenol	71.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC04-2-4
DILUTION

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 18:13
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
111-44-4	Bis-(2-Chloroethyl) Ether	58	< 58 U
95-57-8	2-Chlorophenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58	< 58 U
106-44-5	4-Methylphenol	58	< 58 U
621-64-7	N-Nitroso-Di-N-Propylamine	290	< 290 U
67-72-1	Hexachloroethane	58	< 58 U
98-95-3	Nitrobenzene	58	< 58 U
78-59-1	Isophorone	58	< 58 U
88-75-5	2-Nitrophenol	290	< 290 U
105-67-9	2,4-Dimethylphenol	58	< 58 U
65-85-0	Benzoic Acid	580	< 580 U
111-91-1	bis(2-Chloroethoxy) Methane	58	< 58 U
120-83-2	2,4-Dichlorophenol	290	< 290 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	**Naphthalene**	**58**	**330**
106-47-8	4-Chloroaniline	290	< 290 U
87-68-3	Hexachlorobutadiene	58	< 58 U
59-50-7	4-Chloro-3-methylphenol	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**58**	**270**
77-47-4	Hexachlorocyclopentadiene	290	< 290 U
88-06-2	2,4,6-Trichlorophenol	290	< 290 U
95-95-4	2,4,5-Trichlorophenol	290	< 290 U
91-58-7	2-Chloronaphthalene	58	< 58 U
88-74-4	2-Nitroaniline	290	< 290 U
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
99-09-2	3-Nitroaniline	290	< 290 U
83-32-9	**Acenaphthene**	**58**	**330**
51-28-5	2,4-Dinitrophenol	580	< 580 U
100-02-7	4-Nitrophenol	290	< 290 U
132-64-9	**Dibenzofuran**	**58**	**120**
606-20-2	2,6-Dinitrotoluene	290	< 290 U
121-14-2	2,4-Dinitrotoluene	290	< 290 U
84-66-2	Diethylphthalate	58	< 58 U
7005-72-3	4-Chlorophenyl-phenylether	58	< 58 U
86-73-7	**Fluorene**	**58**	**450**
100-01-6	4-Nitroaniline	290	< 290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580	< 580 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC04-2-4
DILUTION

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Date Analyzed: 03/09/10 18:13

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
101-55-3	4-Bromophenyl-phenylether	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	290	< 290 U
85-01-8	**Phenanthrene**	**58**	**2,300**
86-74-8	**Carbazole**	**58**	**210**
120-12-7	**Anthracene**	**58**	**630**
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	**Fluoranthene**	**58**	**2,000**
129-00-0	**Pyrene**	**58**	**1,800**
85-68-7	Butylbenzylphthalate	58	< 58 U
91-94-1	3,3'-Dichlorobenzidine	290	< 290 U
56-55-3	**Benzo(a)anthracene**	**58**	**710**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**58**	**190 B**
218-01-9	**Chrysene**	**58**	**760**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
205-99-2	**Benzo(b)fluoranthene**	**58**	**430**
207-08-9	**Benzo(k)fluoranthene**	**58**	**430**
50-32-8	**Benzo(a)pyrene**	**58**	**690**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**300**
53-70-3	**Dibenz(a,h)anthracene**	**58**	**140**
191-24-2	**Benzo(g,h,i)perylene**	**58**	**320**
62-53-3	Aniline	58	< 58 U
90-12-0	**1-Methylnaphthalene**	**58**	**230**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.9%	2-Fluorobiphenyl	78.8%
d14-p-Terphenyl	84.1%	d4-1,2-Dichlorobenzene	61.9%
d5-Phenol	82.4%	2-Fluorophenol	64.5%
2,4,6-Tribromophenol	91.2%	d4-2-Chlorophenol	68.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC05-0-2
SAMPLE

Lab Sample ID: QL56E
LIMS ID: 10-4781
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 23:30
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	**Dimethylphthalate**	**20**	**10 J**
208-96-8	**Acenaphthylene**	**20**	**13 J**
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC05-0-2
SAMPLE

Lab Sample ID: QL56E
LIMS ID: 10-4781
Matrix: Sediment
Date Analyzed: 03/08/10 23:30

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**37**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**30**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**150**
129-00-0	**Pyrene**	**20**	**680**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**64**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**270 B**
218-01-9	**Chrysene**	**20**	**140**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**130**
207-08-9	**Benzo(k)fluoranthene**	**20**	**130**
50-32-8	**Benzo(a)pyrene**	**20**	**130**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**35**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**26**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**38**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	74.8%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	77.6%	2-Fluorophenol	60.8%
2,4,6-Tribromophenol	88.8%	d4-2-Chlorophenol	64.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC05-2-4
SAMPLE

Lab Sample ID: QL56F
LIMS ID: 10-4782
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 00:02
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 18.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC05-2-4
SAMPLE

Lab Sample ID: QL56F
LIMS ID: 10-4782
Matrix: Sediment
Date Analyzed: 03/09/10 00:02

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**230 B**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.6%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	60.8%
d5-Phenol	76.8%	2-Fluorophenol	63.2%
2,4,6-Tribromophenol	87.7%	d4-2-Chlorophenol	63.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC06-0-2
SAMPLE

Lab Sample ID: QL56G
LIMS ID: 10-4783
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 00:33
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 52.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	32	< 32 U
111-44-4	Bis-(2-Chloroethyl) Ether	32	< 32 U
95-57-8	2-Chlorophenol	32	< 32 U
541-73-1	1,3-Dichlorobenzene	32	< 32 U
106-46-7	1,4-Dichlorobenzene	32	< 32 U
100-51-6	Benzyl Alcohol	32	< 32 U
95-50-1	1,2-Dichlorobenzene	32	< 32 U
95-48-7	2-Methylphenol	32	< 32 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	32	< 32 U
106-44-5	**4-Methylphenol**	**32**	**20 J**
621-64-7	N-Nitroso-Di-N-Propylamine	160	< 160 U
67-72-1	Hexachloroethane	32	< 32 U
98-95-3	Nitrobenzene	32	< 32 U
78-59-1	Isophorone	32	< 32 U
88-75-5	2-Nitrophenol	160	< 160 U
105-67-9	2,4-Dimethylphenol	32	< 32 U
65-85-0	Benzoic Acid	320	< 320 U
111-91-1	bis(2-Chloroethoxy) Methane	32	< 32 U
120-83-2	2,4-Dichlorophenol	160	< 160 U
120-82-1	1,2,4-Trichlorobenzene	32	< 32 U
91-20-3	**Naphthalene**	**32**	**31 J**
106-47-8	4-Chloroaniline	160	< 160 U
87-68-3	Hexachlorobutadiene	32	< 32 U
59-50-7	4-Chloro-3-methylphenol	160	< 160 U
91-57-6	**2-Methylnaphthalene**	**32**	**18 J**
77-47-4	Hexachlorocyclopentadiene	160	< 160 U
88-06-2	2,4,6-Trichlorophenol	160	< 160 U
95-95-4	2,4,5-Trichlorophenol	160	< 160 U
91-58-7	2-Chloronaphthalene	32	< 32 U
88-74-4	2-Nitroaniline	160	< 160 U
131-11-3	Dimethylphthalate	32	< 32 U
208-96-8	**Acenaphthylene**	**32**	**37**
99-09-2	3-Nitroaniline	160	< 160 U
83-32-9	Acenaphthene	32	< 32 U
51-28-5	2,4-Dinitrophenol	320	< 320 U
100-02-7	4-Nitrophenol	160	< 160 U
132-64-9	Dibenzofuran	32	< 32 U
606-20-2	2,6-Dinitrotoluene	160	< 160 U
121-14-2	2,4-Dinitrotoluene	160	< 160 U
84-66-2	Diethylphthalate	32	< 32 U
7005-72-3	4-Chlorophenyl-phenylether	32	< 32 U
86-73-7	**Fluorene**	**32**	**17 J**
100-01-6	4-Nitroaniline	160	< 160 U
534-52-1	4,6-Dinitro-2-Methylphenol	320	< 320 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC06-0-2
SAMPLE

Lab Sample ID: QL56G
LIMS ID: 10-4783
Matrix: Sediment
Date Analyzed: 03/09/10 00:33

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	32	< 32 U
101-55-3	4-Bromophenyl-phenylether	32	< 32 U
118-74-1	Hexachlorobenzene	32	< 32 U
87-86-5	Pentachlorophenol	160	< 160 U
85-01-8	**Phenanthrene**	**32**	**130**
86-74-8	Carbazole	32	< 32 U
120-12-7	**Anthracene**	**32**	**90**
84-74-2	Di-n-Butylphthalate	32	< 32 U
206-44-0	**Fluoranthene**	**32**	**250**
129-00-0	**Pyrene**	**32**	**640**
85-68-7	Butylbenzylphthalate	32	< 32 U
91-94-1	3,3'-Dichlorobenzidine	160	< 160 U
56-55-3	**Benzo(a)anthracene**	**32**	**140**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**32**	**880 B**
218-01-9	**Chrysene**	**32**	**240**
117-84-0	Di-n-Octyl phthalate	32	< 32 U
205-99-2	**Benzo(b)fluoranthene**	**32**	**360**
207-08-9	**Benzo(k)fluoranthene**	**32**	**360**
50-32-8	**Benzo(a)pyrene**	**32**	**350**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**32**	**110**
53-70-3	**Dibenz(a,h)anthracene**	**32**	**62**
191-24-2	**Benzo(g,h,i)perylene**	**32**	**100**
62-53-3	Aniline	32	< 32 U
90-12-0	1-Methylnaphthalene	32	< 32 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	74.1%	2-Fluorophenol	57.6%
2,4,6-Tribromophenol	91.2%	d4-2-Chlorophenol	60.0%

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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC06-2-4
SAMPLE

Lab Sample ID: QL56H
LIMS ID: 10-4784
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 01:05
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 14.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	34	< 34 U
111-44-4	Bis-(2-Chloroethyl) Ether	34	< 34 U
95-57-8	2-Chlorophenol	34	< 34 U
541-73-1	1,3-Dichlorobenzene	34	< 34 U
106-46-7	1,4-Dichlorobenzene	34	< 34 U
100-51-6	Benzyl Alcohol	34	< 34 U
95-50-1	1,2-Dichlorobenzene	34	< 34 U
95-48-7	2-Methylphenol	34	< 34 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	34	< 34 U
106-44-5	**4-Methylphenol**	**34**	**76**
621-64-7	N-Nitroso-Di-N-Propylamine	170	< 170 U
67-72-1	Hexachloroethane	34	< 34 U
98-95-3	Nitrobenzene	34	< 34 U
78-59-1	Isophorone	34	< 34 U
88-75-5	2-Nitrophenol	170	< 170 U
105-67-9	2,4-Dimethylphenol	34	< 34 U
65-85-0	Benzoic Acid	340	< 340 U
111-91-1	bis(2-Chloroethoxy) Methane	34	< 34 U
120-83-2	2,4-Dichlorophenol	170	< 170 U
120-82-1	1,2,4-Trichlorobenzene	34	< 34 U
91-20-3	**Naphthalene**	**34**	**73**
106-47-8	4-Chloroaniline	170	< 170 U
87-68-3	Hexachlorobutadiene	34	< 34 U
59-50-7	4-Chloro-3-methylphenol	170	< 170 U
91-57-6	**2-Methylnaphthalene**	**34**	**28 J**
77-47-4	Hexachlorocyclopentadiene	170	< 170 U
88-06-2	2,4,6-Trichlorophenol	170	< 170 U
95-95-4	2,4,5-Trichlorophenol	170	< 170 U
91-58-7	2-Chloronaphthalene	34	< 34 U
88-74-4	2-Nitroaniline	170	< 170 U
131-11-3	Dimethylphthalate	34	< 34 U
208-96-8	**Acenaphthylene**	**34**	**38**
99-09-2	3-Nitroaniline	170	< 170 U
83-32-9	**Acenaphthene**	**34**	**47**
51-28-5	2,4-Dinitrophenol	340	< 340 U
100-02-7	4-Nitrophenol	170	< 170 U
132-64-9	**Dibenzofuran**	**34**	**36**
606-20-2	2,6-Dinitrotoluene	170	< 170 U
121-14-2	2,4-Dinitrotoluene	170	< 170 U
84-66-2	Diethylphthalate	34	< 34 U
7005-72-3	4-Chlorophenyl-phenylether	34	< 34 U
86-73-7	**Fluorene**	**34**	**68**
100-01-6	4-Nitroaniline	170	< 170 U
534-52-1	4,6-Dinitro-2-Methylphenol	340	< 340 U

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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC06-2-4
SAMPLE

Lab Sample ID: QL56H
LIMS ID: 10-4784
Matrix: Sediment
Date Analyzed: 03/09/10 01:05

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	34	< 34 U
101-55-3	4-Bromophenyl-phenylether	34	< 34 U
118-74-1	Hexachlorobenzene	34	< 34 U
87-86-5	Pentachlorophenol	170	< 170 U
85-01-8	**Phenanthrene**	**34**	**260**
86-74-8	Carbazole	34	< 34 U
120-12-7	**Anthracene**	**34**	**180**
84-74-2	Di-n-Butylphthalate	34	< 34 U
206-44-0	**Fluoranthene**	**34**	**810**
129-00-0	**Pyrene**	**34**	**810**
85-68-7	Butylbenzylphthalate	34	< 34 U
91-94-1	3,3'-Dichlorobenzidine	170	< 170 U
56-55-3	**Benzo(a)anthracene**	**34**	**330**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**34**	**470 B**
218-01-9	**Chrysene**	**34**	**460**
117-84-0	Di-n-Octyl phthalate	34	< 34 U
205-99-2	**Benzo(b)fluoranthene**	**34**	**300**
207-08-9	**Benzo(k)fluoranthene**	**34**	**300**
50-32-8	**Benzo(a)pyrene**	**34**	**330**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**34**	**100**
53-70-3	**Dibenz(a,h)anthracene**	**34**	**46**
191-24-2	**Benzo(g,h,i)perylene**	**34**	**100**
62-53-3	Aniline	34	< 34 U
90-12-0	**1-Methylnaphthalene**	**34**	**19 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	74.9%	2-Fluorophenol	57.9%
2,4,6-Tribromophenol	93.6%	d4-2-Chlorophenol	59.5%

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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC07B-0.0-2.3
SAMPLE

Lab Sample ID: QM30A
LIMS ID: 10-5171
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 15:05
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 22.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 30.4%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**22**	**18 J**
111-44-4	Bis-(2-Chloroethyl) Ether	22	< 22 U
95-57-8	2-Chlorophenol	22	< 22 U
541-73-1	1,3-Dichlorobenzene	22	< 22 U
106-46-7	1,4-Dichlorobenzene	22	< 22 U
100-51-6	Benzyl Alcohol	22	< 22 U
95-50-1	1,2-Dichlorobenzene	22	< 22 U
95-48-7	2-Methylphenol	22	< 22 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	22	< 22 U
106-44-5	4-Methylphenol	22	< 22 U
621-64-7	N-Nitroso-Di-N-Propylamine	110	< 110 U
67-72-1	Hexachloroethane	22	< 22 U
98-95-3	Nitrobenzene	22	< 22 U
78-59-1	Isophorone	22	< 22 U
88-75-5	2-Nitrophenol	110	< 110 U
105-67-9	2,4-Dimethylphenol	22	< 22 U
65-85-0	Benzoic Acid	220	< 220 U
111-91-1	bis(2-Chloroethoxy) Methane	22	< 22 U
120-83-2	2,4-Dichlorophenol	110	< 110 U
120-82-1	1,2,4-Trichlorobenzene	22	< 22 U
91-20-3	Naphthalene	22	< 22 U
106-47-8	4-Chloroaniline	110	< 110 U
87-68-3	Hexachlorobutadiene	22	< 22 U
59-50-7	4-Chloro-3-methylphenol	110	< 110 U
91-57-6	2-Methylnaphthalene	22	< 22 U
77-47-4	Hexachlorocyclopentadiene	110	< 110 U
88-06-2	2,4,6-Trichlorophenol	110	< 110 U
95-95-4	2,4,5-Trichlorophenol	110	< 110 U
91-58-7	2-Chloronaphthalene	22	< 22 U
88-74-4	2-Nitroaniline	110	< 110 U
131-11-3	Dimethylphthalate	22	< 22 U
208-96-8	Acenaphthylene	22	< 22 U
99-09-2	3-Nitroaniline	110	< 110 U
83-32-9	**Acenaphthene**	**22**	**13 J**
51-28-5	2,4-Dinitrophenol	220	< 220 U
100-02-7	4-Nitrophenol	110	< 110 U
132-64-9	Dibenzofuran	22	< 22 U
606-20-2	2,6-Dinitrotoluene	110	< 110 U
121-14-2	2,4-Dinitrotoluene	110	< 110 U
84-66-2	Diethylphthalate	22	< 22 U
7005-72-3	4-Chlorophenyl-phenylether	22	< 22 U
86-73-7	Fluorene	22	< 22 U
100-01-6	4-Nitroaniline	110	< 110 U
534-52-1	4,6-Dinitro-2-Methylphenol	220	< 220 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC07B-0.0-2.3
SAMPLE

Lab Sample ID: QM30A
LIMS ID: 10-5171
Matrix: Sediment
Date Analyzed: 03/12/10 15:05

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	22	< 22 U
101-55-3	4-Bromophenyl-phenylether	22	< 22 U
118-74-1	Hexachlorobenzene	22	< 22 U
87-86-5	Pentachlorophenol	110	< 110 U
85-01-8	**Phenanthrene**	**22**	**110**
86-74-8	**Carbazole**	**22**	**19 J**
120-12-7	**Anthracene**	**22**	**36**
84-74-2	Di-n-Butylphthalate	22	< 22 U
206-44-0	**Fluoranthene**	**22**	**180**
129-00-0	**Pyrene**	**22**	**380**
85-68-7	Butylbenzylphthalate	22	< 22 U
91-94-1	3,3'-Dichlorobenzidine	110	< 110 U
56-55-3	**Benzo(a)anthracene**	**22**	**94**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**22**	**220**
218-01-9	**Chrysene**	**22**	**150**
117-84-0	Di-n-Octyl phthalate	22	< 22 U
205-99-2	**Benzo(b)fluoranthene**	**22**	**150**
207-08-9	**Benzo(k)fluoranthene**	**22**	**150**
50-32-8	**Benzo(a)pyrene**	**22**	**160**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**22**	**56**
53-70-3	**Dibenz(a,h)anthracene**	**22**	**27**
191-24-2	**Benzo(g,h,i)perylene**	**22**	**55**
62-53-3	Aniline	22	< 22 U
90-12-0	1-Methylnaphthalene	22	< 22 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	39.8%	2-Fluorobiphenyl	57.2%
d14-p-Terphenyl	62.4%	d4-1,2-Dichlorobenzene	45.6%
d5-Phenol	58.4%	2-Fluorophenol	53.9%
2,4,6-Tribromophenol	61.1%	d4-2-Chlorophenol	51.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC07B-2.3-4
SAMPLE

Lab Sample ID: QM30B
LIMS ID: 10-5172
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 15:38
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 23.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC07B-2.3-4
SAMPLE

Lab Sample ID: QM30B
LIMS ID: 10-5172
Matrix: Sediment
Date Analyzed: 03/12/10 15:38

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	**Pyrene**	**19**	**29**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**32**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**9.8 J**
207-08-9	**Benzo(k)fluoranthene**	**19**	**9.8 J**
50-32-8	**Benzo(a)pyrene**	**19**	**10 J**
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	76.0%
d14-p-Terphenyl	96.0%	d4-1,2-Dichlorobenzene	70.0%
d5-Phenol	68.0%	2-Fluorophenol	64.0%
2,4,6-Tribromophenol	97.3%	d4-2-Chlorophenol	60.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC08-0-2
SAMPLE

Lab Sample ID: QL56I
LIMS ID: 10-4785
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 01:37
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 17.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 50.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	28	< 28 U
111-44-4	Bis-(2-Chloroethyl) Ether	28	< 28 U
95-57-8	2-Chlorophenol	28	< 28 U
541-73-1	1,3-Dichlorobenzene	28	< 28 U
106-46-7	1,4-Dichlorobenzene	28	< 28 U
100-51-6	Benzyl Alcohol	28	< 28 U
95-50-1	1,2-Dichlorobenzene	28	< 28 U
95-48-7	2-Methylphenol	28	< 28 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	28	< 28 U
106-44-5	**4-Methylphenol**	**28**	**15 J**
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	28	< 28 U
98-95-3	Nitrobenzene	28	< 28 U
78-59-1	Isophorone	28	< 28 U
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	28	< 28 U
65-85-0	Benzoic Acid	280	< 280 U
111-91-1	bis(2-Chloroethoxy) Methane	28	< 28 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	28	< 28 U
91-20-3	**Naphthalene**	**28**	**29**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	28	< 28 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**28**	**15 J**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	28	< 28 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	Dimethylphthalate	28	< 28 U
208-96-8	**Acenaphthylene**	**28**	**34**
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**28**	**14 J**
51-28-5	2,4-Dinitrophenol	280	< 280 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	Dibenzofuran	28	< 28 U
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	28	< 28 U
7005-72-3	4-Chlorophenyl-phenylether	28	< 28 U
86-73-7	**Fluorene**	**28**	**20 J**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	280	< 280 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC08-0-2
SAMPLE

Lab Sample ID: QL56I
LIMS ID: 10-4785
Matrix: Sediment
Date Analyzed: 03/09/10 01:37

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	28	< 28 U
101-55-3	4-Bromophenyl-phenylether	28	< 28 U
118-74-1	Hexachlorobenzene	28	< 28 U
87-86-5	Pentachlorophenol	140	< 140 U
85-01-8	**Phenanthrene**	**28**	**120**
86-74-8	**Carbazole**	**28**	**28**
120-12-7	**Anthracene**	**28**	**90**
84-74-2	Di-n-Butylphthalate	28	< 28 U
206-44-0	**Fluoranthene**	**28**	**260**
129-00-0	**Pyrene**	**28**	**520**
85-68-7	Butylbenzylphthalate	28	< 28 U
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**28**	**170**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**28**	**610 B**
218-01-9	**Chrysene**	**28**	**300**
117-84-0	Di-n-Octyl phthalate	28	< 28 U
205-99-2	**Benzo(b)fluoranthene**	**28**	**340**
207-08-9	**Benzo(k)fluoranthene**	**28**	**340**
50-32-8	**Benzo(a)pyrene**	**28**	**360**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**28**	**120**
53-70-3	**Dibenz(a,h)anthracene**	**28**	**62**
191-24-2	**Benzo(g,h,i)perylene**	**28**	**110**
62-53-3	Aniline	28	< 28 U
90-12-0	1-Methylnaphthalene	28	< 28 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.8%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	72.8%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	77.3%	2-Fluorophenol	61.9%
2,4,6-Tribromophenol	95.2%	d4-2-Chlorophenol	61.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC08-2-4
SAMPLE

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/09/10
Date Analyzed: 03/10/10 16:21
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 13.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 53.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	37	< 37 U
111-44-4	Bis-(2-Chloroethyl) Ether	37	< 37 U
95-57-8	2-Chlorophenol	37	< 37 U
541-73-1	1,3-Dichlorobenzene	37	< 37 U
106-46-7	1,4-Dichlorobenzene	37	< 37 U
100-51-6	Benzyl Alcohol	37	< 37 U
95-50-1	1,2-Dichlorobenzene	37	< 37 U
95-48-7	2-Methylphenol	37	< 37 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	37	< 37 U
106-44-5	4-Methylphenol	37	< 37 U
621-64-7	N-Nitroso-Di-N-Propylamine	180	< 180 U
67-72-1	Hexachloroethane	37	< 37 U
98-95-3	Nitrobenzene	37	< 37 U
78-59-1	Isophorone	37	< 37 U
88-75-5	2-Nitrophenol	180	< 180 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
111-91-1	bis(2-Chloroethoxy) Methane	37	< 37 U
120-83-2	2,4-Dichlorophenol	180	< 180 U
120-82-1	1,2,4-Trichlorobenzene	37	< 37 U
91-20-3	**Naphthalene**	**37**	**33 J**
106-47-8	4-Chloroaniline	180	< 180 U
87-68-3	Hexachlorobutadiene	37	< 37 U
59-50-7	4-Chloro-3-methylphenol	180	< 180 U
91-57-6	**2-Methylnaphthalene**	**37**	**39**
77-47-4	Hexachlorocyclopentadiene	180	< 180 U
88-06-2	2,4,6-Trichlorophenol	180	< 180 U
95-95-4	2,4,5-Trichlorophenol	180	< 180 U
91-58-7	2-Chloronaphthalene	37	< 37 U
88-74-4	2-Nitroaniline	180	< 180 U
131-11-3	Dimethylphthalate	37	< 37 U
208-96-8	Acenaphthylene	37	< 37 U
99-09-2	3-Nitroaniline	180	< 180 U
83-32-9	Acenaphthene	37	< 37 U
51-28-5	2,4-Dinitrophenol	370	< 370 U
100-02-7	4-Nitrophenol	180	< 180 U
132-64-9	**Dibenzofuran**	**37**	**25 J**
606-20-2	2,6-Dinitrotoluene	180	< 180 U
121-14-2	2,4-Dinitrotoluene	180	< 180 U
84-66-2	Diethylphthalate	37	< 37 U
7005-72-3	4-Chlorophenyl-phenylether	37	< 37 U
86-73-7	**Fluorene**	**37**	**57**
100-01-6	4-Nitroaniline	180	< 180 U
534-52-1	4,6-Dinitro-2-Methylphenol	370	< 370 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC08-2-4
SAMPLE

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Date Analyzed: 03/10/10 16:21

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	37	< 37 U
101-55-3	4-Bromophenyl-phenylether	37	< 37 U
118-74-1	Hexachlorobenzene	37	< 37 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**37**	**170**
86-74-8	Carbazole	37	< 37 U
120-12-7	**Anthracene**	**37**	**290**
84-74-2	Di-n-Butylphthalate	37	< 37 U
206-44-0	**Fluoranthene**	**37**	**1,200**
129-00-0	**Pyrene**	**37**	**1,500**
85-68-7	Butylbenzylphthalate	37	< 37 U
91-94-1	3,3'-Dichlorobenzidine	180	< 180 U
56-55-3	**Benzo(a)anthracene**	**37**	**560**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**37**	**3,200 E**
218-01-9	**Chrysene**	**37**	**700**
117-84-0	Di-n-Octyl phthalate	37	< 37 U
205-99-2	**Benzo(b)fluoranthene**	**37**	**400**
207-08-9	**Benzo(k)fluoranthene**	**37**	**400**
50-32-8	**Benzo(a)pyrene**	**37**	**520**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**37**	**140**
53-70-3	Dibenz(a,h)anthracene	37	< 37 U
191-24-2	**Benzo(g,h,i)perylene**	**37**	**140**
62-53-3	Aniline	37	< 37 U
90-12-0	**1-Methylnaphthalene**	**37**	**20 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.2%	2-Fluorobiphenyl	60.0%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	50.0%
d5-Phenol	59.7%	2-Fluorophenol	51.2%
2,4,6-Tribromophenol	95.5%	d4-2-Chlorophenol	58.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC08-2-4
DILUTION

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/09/10
Date Analyzed: 03/10/10 17:09
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 13.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 53.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	110	< 110 U
111-44-4	Bis-(2-Chloroethyl) Ether	110	< 110 U
95-57-8	2-Chlorophenol	110	< 110 U
541-73-1	1,3-Dichlorobenzene	110	< 110 U
106-46-7	1,4-Dichlorobenzene	110	< 110 U
100-51-6	Benzyl Alcohol	110	< 110 U
95-50-1	1,2-Dichlorobenzene	110	< 110 U
95-48-7	2-Methylphenol	110	< 110 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	110	< 110 U
106-44-5	4-Methylphenol	110	< 110 U
621-64-7	N-Nitroso-Di-N-Propylamine	550	< 550 U
67-72-1	Hexachloroethane	110	< 110 U
98-95-3	Nitrobenzene	110	< 110 U
78-59-1	Isophorone	110	< 110 U
88-75-5	2-Nitrophenol	550	< 550 U
105-67-9	2,4-Dimethylphenol	110	< 110 U
65-85-0	Benzoic Acid	1,100	< 1,100 U
111-91-1	bis(2-Chloroethoxy) Methane	110	< 110 U
120-83-2	2,4-Dichlorophenol	550	< 550 U
120-82-1	1,2,4-Trichlorobenzene	110	< 110 U
91-20-3	**Naphthalene**	**110**	**34 J**
106-47-8	4-Chloroaniline	550	< 550 U
87-68-3	Hexachlorobutadiene	110	< 110 U
59-50-7	4-Chloro-3-methylphenol	550	< 550 U
91-57-6	**2-Methylnaphthalene**	**110**	**34 J**
77-47-4	Hexachlorocyclopentadiene	550	< 550 U
88-06-2	2,4,6-Trichlorophenol	550	< 550 U
95-95-4	2,4,5-Trichlorophenol	550	< 550 U
91-58-7	2-Chloronaphthalene	110	< 110 U
88-74-4	2-Nitroaniline	550	< 550 U
131-11-3	Dimethylphthalate	110	< 110 U
208-96-8	Acenaphthylene	110	< 110 U
99-09-2	3-Nitroaniline	550	< 550 U
83-32-9	Acenaphthene	110	< 110 U
51-28-5	2,4-Dinitrophenol	1,100	< 1,100 U
100-02-7	4-Nitrophenol	550	< 550 U
132-64-9	**Dibenzofuran**	**110**	**22 J**
606-20-2	2,6-Dinitrotoluene	550	< 550 U
121-14-2	2,4-Dinitrotoluene	550	< 550 U
84-66-2	Diethylphthalate	110	< 110 U
7005-72-3	4-Chlorophenyl-phenylether	110	< 110 U
86-73-7	**Fluorene**	**110**	**54 J**
100-01-6	4-Nitroaniline	550	< 550 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,100	< 1,100 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC08-2-4
DILUTION

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Date Analyzed: 03/10/10 17:09

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	110	< 110 U
101-55-3	4-Bromophenyl-phenylether	110	< 110 U
118-74-1	Hexachlorobenzene	110	< 110 U
87-86-5	Pentachlorophenol	550	< 550 U
85-01-8	**Phenanthrene**	**110**	**210**
86-74-8	Carbazole	110	< 110 U
120-12-7	**Anthracene**	**110**	**230**
84-74-2	Di-n-Butylphthalate	110	< 110 U
206-44-0	**Fluoranthene**	**110**	**1,900**
129-00-0	**Pyrene**	**110**	**1,200**
85-68-7	Butylbenzylphthalate	110	< 110 U
91-94-1	3,3'-Dichlorobenzidine	550	< 550 U
56-55-3	**Benzo(a)anthracene**	**110**	**570**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**110**	**3,300**
218-01-9	**Chrysene**	**110**	**750**
117-84-0	Di-n-Octyl phthalate	110	< 110 U
205-99-2	**Benzo(b)fluoranthene**	**110**	**450**
207-08-9	**Benzo(k)fluoranthene**	**110**	**450**
50-32-8	**Benzo(a)pyrene**	**110**	**460**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**110**	**180**
53-70-3	Dibenz(a,h)anthracene	110	< 110 U
191-24-2	**Benzo(g,h,i)perylene**	**110**	**200**
62-53-3	Aniline	110	< 110 U
90-12-0	1-Methylnaphthalene	110	< 110 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.7%	2-Fluorobiphenyl	63.1%
d14-p-Terphenyl	53.3%	d4-1,2-Dichlorobenzene	51.0%
d5-Phenol	58.9%	2-Fluorophenol	57.0%
2,4,6-Tribromophenol	81.6%	d4-2-Chlorophenol	60.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC10-0-2.4
SAMPLE

Lab Sample ID: QM30C
LIMS ID: 10-5173
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 16:12
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 18.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 40.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	26	< 26 U
111-44-4	Bis-(2-Chloroethyl) Ether	26	< 26 U
95-57-8	2-Chlorophenol	26	< 26 U
541-73-1	1,3-Dichlorobenzene	26	< 26 U
106-46-7	1,4-Dichlorobenzene	26	< 26 U
100-51-6	Benzyl Alcohol	26	< 26 U
95-50-1	1,2-Dichlorobenzene	26	< 26 U
95-48-7	2-Methylphenol	26	< 26 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	26	< 26 U
106-44-5	4-Methylphenol	26	< 26 U
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 U
67-72-1	Hexachloroethane	26	< 26 U
98-95-3	Nitrobenzene	26	< 26 U
78-59-1	Isophorone	26	< 26 U
88-75-5	2-Nitrophenol	130	< 130 U
105-67-9	2,4-Dimethylphenol	26	< 26 U
65-85-0	Benzoic Acid	260	< 260 U
111-91-1	bis(2-Chloroethoxy) Methane	26	< 26 U
120-83-2	2,4-Dichlorophenol	130	< 130 U
120-82-1	1,2,4-Trichlorobenzene	26	< 26 U
91-20-3	**Naphthalene**	**26**	**14 J**
106-47-8	4-Chloroaniline	130	< 130 U
87-68-3	Hexachlorobutadiene	26	< 26 U
59-50-7	4-Chloro-3-methylphenol	130	< 130 U
91-57-6	2-Methylnaphthalene	26	< 26 U
77-47-4	Hexachlorocyclopentadiene	130	< 130 U
88-06-2	2,4,6-Trichlorophenol	130	< 130 U
95-95-4	2,4,5-Trichlorophenol	130	< 130 U
91-58-7	2-Chloronaphthalene	26	< 26 U
88-74-4	2-Nitroaniline	130	< 130 U
131-11-3	Dimethylphthalate	26	< 26 U
208-96-8	**Acenaphthylene**	**26**	**18 J**
99-09-2	3-Nitroaniline	130	< 130 U
83-32-9	Acenaphthene	26	< 26 U
51-28-5	2,4-Dinitrophenol	260	< 260 U
100-02-7	4-Nitrophenol	130	< 130 U
132-64-9	Dibenzofuran	26	< 26 U
606-20-2	2,6-Dinitrotoluene	130	< 130 U
121-14-2	2,4-Dinitrotoluene	130	< 130 U
84-66-2	Diethylphthalate	26	< 26 U
7005-72-3	4-Chlorophenyl-phenylether	26	< 26 U
86-73-7	**Fluorene**	**26**	**18 J**
100-01-6	4-Nitroaniline	130	< 130 U
534-52-1	4,6-Dinitro-2-Methylphenol	260	< 260 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC10-0-2.4
SAMPLE

Lab Sample ID: QM30C
LIMS ID: 10-5173
Matrix: Sediment
Date Analyzed: 03/12/10 16:12

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	26	< 26 U
101-55-3	4-Bromophenyl-phenylether	26	< 26 U
118-74-1	Hexachlorobenzene	26	< 26 U
87-86-5	Pentachlorophenol	130	< 130 U
85-01-8	**Phenanthrene**	**26**	**130**
86-74-8	**Carbazole**	**26**	**28**
120-12-7	**Anthracene**	**26**	**73**
84-74-2	**Di-n-Butylphthalate**	**26**	**18 J**
206-44-0	**Fluoranthene**	**26**	**260**
129-00-0	**Pyrene**	**26**	**340**
85-68-7	**Butylbenzylphthalate**	**26**	**15 J**
91-94-1	3,3'-Dichlorobenzidine	130	< 130 U
56-55-3	**Benzo(a)anthracene**	**26**	**160**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**26**	**270**
218-01-9	**Chrysene**	**26**	**290**
117-84-0	Di-n-Octyl phthalate	26	< 26 U
205-99-2	**Benzo(b)fluoranthene**	**26**	**280**
207-08-9	**Benzo(k)fluoranthene**	**26**	**280**
50-32-8	**Benzo(a)pyrene**	**26**	**290**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**26**	**85**
53-70-3	**Dibenz(a,h)anthracene**	**26**	**42**
191-24-2	**Benzo(g,h,i)perylene**	**26**	**83**
62-53-3	Aniline	26	< 26 U
90-12-0	1-Methylnaphthalene	26	< 26 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.6%	2-Fluorobiphenyl	62.0%
d14-p-Terphenyl	60.0%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	70.7%	2-Fluorophenol	61.3%
2,4,6-Tribromophenol	77.1%	d4-2-Chlorophenol	61.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC10-2.4-4
SAMPLE

Lab Sample ID: QM30D
LIMS ID: 10-5174
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 16:45
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 20.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	24	< 24 U
111-44-4	Bis-(2-Chloroethyl) Ether	24	< 24 U
95-57-8	2-Chlorophenol	24	< 24 U
541-73-1	1,3-Dichlorobenzene	24	< 24 U
106-46-7	1,4-Dichlorobenzene	24	< 24 U
100-51-6	Benzyl Alcohol	24	< 24 U
95-50-1	1,2-Dichlorobenzene	24	< 24 U
95-48-7	2-Methylphenol	24	< 24 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	24	< 24 U
106-44-5	4-Methylphenol	24	< 24 U
621-64-7	N-Nitroso-Di-N-Propylamine	120	< 120 U
67-72-1	Hexachloroethane	24	< 24 U
98-95-3	Nitrobenzene	24	< 24 U
78-59-1	Isophorone	24	< 24 U
88-75-5	2-Nitrophenol	120	< 120 U
105-67-9	2,4-Dimethylphenol	24	< 24 U
65-85-0	Benzoic Acid	240	< 240 U
111-91-1	bis(2-Chloroethoxy) Methane	24	< 24 U
120-83-2	2,4-Dichlorophenol	120	< 120 U
120-82-1	1,2,4-Trichlorobenzene	24	< 24 U
91-20-3	**Naphthalene**	**24**	**20 J**
106-47-8	4-Chloroaniline	120	< 120 U
87-68-3	Hexachlorobutadiene	24	< 24 U
59-50-7	4-Chloro-3-methylphenol	120	< 120 U
91-57-6	2-Methylnaphthalene	24	< 24 U
77-47-4	Hexachlorocyclopentadiene	120	< 120 U
88-06-2	2,4,6-Trichlorophenol	120	< 120 U
95-95-4	2,4,5-Trichlorophenol	120	< 120 U
91-58-7	2-Chloronaphthalene	24	< 24 U
88-74-4	2-Nitroaniline	120	< 120 U
131-11-3	Dimethylphthalate	24	< 24 U
208-96-8	**Acenaphthylene**	**24**	**25**
99-09-2	3-Nitroaniline	120	< 120 U
83-32-9	Acenaphthene	24	< 24 U
51-28-5	2,4-Dinitrophenol	240	< 240 U
100-02-7	4-Nitrophenol	120	< 120 U
132-64-9	Dibenzofuran	24	< 24 U
606-20-2	2,6-Dinitrotoluene	120	< 120 U
121-14-2	2,4-Dinitrotoluene	120	< 120 U
84-66-2	Diethylphthalate	24	< 24 U
7005-72-3	4-Chlorophenyl-phenylether	24	< 24 U
86-73-7	**Fluorene**	**24**	**17 J**
100-01-6	4-Nitroaniline	120	< 120 U
534-52-1	4,6-Dinitro-2-Methylphenol	240	< 240 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC10-2.4-4
SAMPLE

Lab Sample ID: QM30D
LIMS ID: 10-5174
Matrix: Sediment
Date Analyzed: 03/12/10 16:45

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	24	< 24 U
101-55-3	4-Bromophenyl-phenylether	24	< 24 U
118-74-1	Hexachlorobenzene	24	< 24 U
87-86-5	Pentachlorophenol	120	< 120 U
85-01-8	**Phenanthrene**	**24**	**92**
86-74-8	**Carbazole**	**24**	**22 J**
120-12-7	**Anthracene**	**24**	**81**
84-74-2	Di-n-Butylphthalate	24	< 24 U
206-44-0	**Fluoranthene**	**24**	**500**
129-00-0	**Pyrene**	**24**	**1,100**
85-68-7	Butylbenzylphthalate	24	< 24 U
91-94-1	3,3'-Dichlorobenzidine	120	< 120 U
56-55-3	**Benzo(a)anthracene**	**24**	**170**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**130**
218-01-9	**Chrysene**	**24**	**340**
117-84-0	Di-n-Octyl phthalate	24	< 24 U
205-99-2	**Benzo(b)fluoranthene**	**24**	**300**
207-08-9	**Benzo(k)fluoranthene**	**24**	**300**
50-32-8	**Benzo(a)pyrene**	**24**	**310**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**24**	**86**
53-70-3	**Dibenz(a,h)anthracene**	**24**	**44**
191-24-2	**Benzo(g,h,i)perylene**	**24**	**89**
62-53-3	Aniline	24	< 24 U
90-12-0	1-Methylnaphthalene	24	< 24 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.0%	2-Fluorobiphenyl	90.8%
d14-p-Terphenyl	90.8%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	75.7%	2-Fluorophenol	69.1%
2,4,6-Tribromophenol	81.3%	d4-2-Chlorophenol	65.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC11-0-2
SAMPLE

Lab Sample ID: QL56K
LIMS ID: 10-4787
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 02:09
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 43.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**14 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**11 J**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**32**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**16 J**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**21**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**22**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**18 J**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**26**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC11-0-2
SAMPLE

Lab Sample ID: QL56K
LIMS ID: 10-4787
Matrix: Sediment
Date Analyzed: 03/09/10 02:09

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**180**
86-74-8	**Carbazole**	**20**	**31**
120-12-7	**Anthracene**	**20**	**65**
84-74-2	**Di-n-Butylphthalate**	**20**	**53**
206-44-0	**Fluoranthene**	**20**	**290**
129-00-0	**Pyrene**	**20**	**380**
85-68-7	**Butylbenzylphthalate**	**20**	**34**
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**130**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**660 B**
218-01-9	**Chrysene**	**20**	**220**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**240**
207-08-9	**Benzo(k)fluoranthene**	**20**	**240**
50-32-8	**Benzo(a)pyrene**	**20**	**240**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**85**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**43**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**76**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**12 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	75.2%
d14-p-Terphenyl	74.8%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	79.5%	2-Fluorophenol	62.9%
2,4,6-Tribromophenol	98.7%	d4-2-Chlorophenol	63.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC11-2-4
SAMPLE

Lab Sample ID: QL56L
LIMS ID: 10-4788
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 02:40
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 49.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	32	< 32 U
111-44-4	Bis-(2-Chloroethyl) Ether	32	< 32 U
95-57-8	2-Chlorophenol	32	< 32 U
541-73-1	1,3-Dichlorobenzene	32	< 32 U
106-46-7	1,4-Dichlorobenzene	32	< 32 U
100-51-6	Benzyl Alcohol	32	< 32 U
95-50-1	1,2-Dichlorobenzene	32	< 32 U
95-48-7	2-Methylphenol	32	< 32 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	32	< 32 U
106-44-5	**4-Methylphenol**	**32**	**25 J**
621-64-7	N-Nitroso-Di-N-Propylamine	160	< 160 U
67-72-1	Hexachloroethane	32	< 32 U
98-95-3	Nitrobenzene	32	< 32 U
78-59-1	Isophorone	32	< 32 U
88-75-5	2-Nitrophenol	160	< 160 U
105-67-9	2,4-Dimethylphenol	32	< 32 U
65-85-0	Benzoic Acid	320	< 320 U
111-91-1	bis(2-Chloroethoxy) Methane	32	< 32 U
120-83-2	2,4-Dichlorophenol	160	< 160 U
120-82-1	1,2,4-Trichlorobenzene	32	< 32 U
91-20-3	**Naphthalene**	**32**	**35**
106-47-8	4-Chloroaniline	160	< 160 U
87-68-3	Hexachlorobutadiene	32	< 32 U
59-50-7	4-Chloro-3-methylphenol	160	< 160 U
91-57-6	**2-Methylnaphthalene**	**32**	**24 J**
77-47-4	Hexachlorocyclopentadiene	160	< 160 U
88-06-2	2,4,6-Trichlorophenol	160	< 160 U
95-95-4	2,4,5-Trichlorophenol	160	< 160 U
91-58-7	2-Chloronaphthalene	32	< 32 U
88-74-4	2-Nitroaniline	160	< 160 U
131-11-3	Dimethylphthalate	32	< 32 U
208-96-8	**Acenaphthylene**	**32**	**25 J**
99-09-2	3-Nitroaniline	160	< 160 U
83-32-9	**Acenaphthene**	**32**	**17 J**
51-28-5	2,4-Dinitrophenol	320	< 320 U
100-02-7	4-Nitrophenol	160	< 160 U
132-64-9	Dibenzofuran	32	< 32 U
606-20-2	2,6-Dinitrotoluene	160	< 160 U
121-14-2	2,4-Dinitrotoluene	160	< 160 U
84-66-2	Diethylphthalate	32	< 32 U
7005-72-3	4-Chlorophenyl-phenylether	32	< 32 U
86-73-7	**Fluorene**	**32**	**22 J**
100-01-6	4-Nitroaniline	160	< 160 U
534-52-1	4,6-Dinitro-2-Methylphenol	320	< 320 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC11-2-4
SAMPLE

Lab Sample ID: QL56L
LIMS ID: 10-4788
Matrix: Sediment
Date Analyzed: 03/09/10 02:40

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	32	< 32 U
101-55-3	4-Bromophenyl-phenylether	32	< 32 U
118-74-1	Hexachlorobenzene	32	< 32 U
87-86-5	Pentachlorophenol	160	< 160 U
85-01-8	**Phenanthrene**	**32**	**120**
86-74-8	Carbazole	32	< 32 U
120-12-7	**Anthracene**	**32**	**93**
84-74-2	Di-n-Butylphthalate	32	< 32 U
206-44-0	**Fluoranthene**	**32**	**580**
129-00-0	**Pyrene**	**32**	**630**
85-68-7	Butylbenzylphthalate	32	< 32 U
91-94-1	3,3'-Dichlorobenzidine	160	< 160 U
56-55-3	**Benzo(a)anthracene**	**32**	**220**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**32**	**1,600 B**
218-01-9	**Chrysene**	**32**	**310**
117-84-0	Di-n-Octyl phthalate	32	< 32 U
205-99-2	**Benzo(b)fluoranthene**	**32**	**260**
207-08-9	**Benzo(k)fluoranthene**	**32**	**260**
50-32-8	**Benzo(a)pyrene**	**32**	**260**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**32**	**80**
53-70-3	**Dibenz(a,h)anthracene**	**32**	**34**
191-24-2	**Benzo(g,h,i)perylene**	**32**	**77**
62-53-3	Aniline	32	< 32 U
90-12-0	1-Methylnaphthalene	32	< 32 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	81.6%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	80.3%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	104%	d4-2-Chlorophenol	64.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC12-0-2
SAMPLE

Lab Sample ID: QM30E
LIMS ID: 10-5175
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 17:19
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	38	< 38 U
111-44-4	Bis-(2-Chloroethyl) Ether	38	< 38 U
95-57-8	2-Chlorophenol	38	< 38 U
541-73-1	1,3-Dichlorobenzene	38	< 38 U
106-46-7	1,4-Dichlorobenzene	38	< 38 U
100-51-6	Benzyl Alcohol	38	< 38 U
95-50-1	1,2-Dichlorobenzene	38	< 38 U
95-48-7	2-Methylphenol	38	< 38 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	38	< 38 U
106-44-5	4-Methylphenol	38	< 38 U
621-64-7	N-Nitroso-Di-N-Propylamine	190	< 190 U
67-72-1	Hexachloroethane	38	< 38 U
98-95-3	Nitrobenzene	38	< 38 U
78-59-1	Isophorone	38	< 38 U
88-75-5	2-Nitrophenol	190	< 190 U
105-67-9	2,4-Dimethylphenol	38	< 38 U
65-85-0	Benzoic Acid	380	< 380 U
111-91-1	bis(2-Chloroethoxy) Methane	38	< 38 U
120-83-2	2,4-Dichlorophenol	190	< 190 U
120-82-1	1,2,4-Trichlorobenzene	38	< 38 U
91-20-3	**Naphthalene**	**38**	**32 J**
106-47-8	4-Chloroaniline	190	< 190 U
87-68-3	Hexachlorobutadiene	38	< 38 U
59-50-7	4-Chloro-3-methylphenol	190	< 190 U
91-57-6	**2-Methylnaphthalene**	**38**	**21 J**
77-47-4	Hexachlorocyclopentadiene	190	< 190 U
88-06-2	2,4,6-Trichlorophenol	190	< 190 U
95-95-4	2,4,5-Trichlorophenol	190	< 190 U
91-58-7	2-Chloronaphthalene	38	< 38 U
88-74-4	2-Nitroaniline	190	< 190 U
131-11-3	Dimethylphthalate	38	< 38 U
208-96-8	**Acenaphthylene**	**38**	**31 J**
99-09-2	3-Nitroaniline	190	< 190 U
83-32-9	**Acenaphthene**	**38**	**22 J**
51-28-5	2,4-Dinitrophenol	380	< 380 U
100-02-7	4-Nitrophenol	190	< 190 U
132-64-9	Dibenzofuran	38	< 38 U
606-20-2	2,6-Dinitrotoluene	190	< 190 U
121-14-2	2,4-Dinitrotoluene	190	< 190 U
84-66-2	Diethylphthalate	38	< 38 U
7005-72-3	4-Chlorophenyl-phenylether	38	< 38 U
86-73-7	**Fluorene**	**38**	**23 J**
100-01-6	4-Nitroaniline	190	< 190 U
534-52-1	4,6-Dinitro-2-Methylphenol	380	< 380 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC12-0-2
SAMPLE

Lab Sample ID: QM30E
LIMS ID: 10-5175
Matrix: Sediment
Date Analyzed: 03/12/10 17:19

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	38	< 38 U
101-55-3	4-Bromophenyl-phenylether	38	< 38 U
118-74-1	Hexachlorobenzene	38	< 38 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**38**	**170**
86-74-8	Carbazole	38	< 38 U
120-12-7	**Anthracene**	**38**	**110**
84-74-2	Di-n-Butylphthalate	38	< 38 U
206-44-0	**Fluoranthene**	**38**	**440**
129-00-0	**Pyrene**	**38**	**980**
85-68-7	Butylbenzylphthalate	38	< 38 U
91-94-1	3,3'-Dichlorobenzidine	190	< 190 U
56-55-3	**Benzo(a)anthracene**	**38**	**190**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**38**	**1,500**
218-01-9	**Chrysene**	**38**	**380**
117-84-0	Di-n-Octyl phthalate	38	< 38 U
205-99-2	**Benzo(b)fluoranthene**	**38**	**500**
207-08-9	**Benzo(k)fluoranthene**	**38**	**500**
50-32-8	**Benzo(a)pyrene**	**38**	**480**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**38**	**93**
53-70-3	**Dibenz(a,h)anthracene**	**38**	**56**
191-24-2	**Benzo(g,h,i)perylene**	**38**	**99**
62-53-3	Aniline	38	< 38 U
90-12-0	1-Methylnaphthalene	38	< 38 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	45.2%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	67.2%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	71.2%	2-Fluorophenol	64.8%
2,4,6-Tribromophenol	73.1%	d4-2-Chlorophenol	61.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC12-2-3.1
SAMPLE

Lab Sample ID: QM30F
LIMS ID: 10-5176
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 17:53
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 13.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 42.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	36	< 36 U
111-44-4	Bis-(2-Chloroethyl) Ether	36	< 36 U
95-57-8	2-Chlorophenol	36	< 36 U
541-73-1	1,3-Dichlorobenzene	36	< 36 U
106-46-7	1,4-Dichlorobenzene	36	< 36 U
100-51-6	Benzyl Alcohol	36	< 36 U
95-50-1	1,2-Dichlorobenzene	36	< 36 U
95-48-7	2-Methylphenol	36	< 36 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	36	< 36 U
106-44-5	4-Methylphenol	36	< 36 U
621-64-7	N-Nitroso-Di-N-Propylamine	180	< 180 U
67-72-1	Hexachloroethane	36	< 36 U
98-95-3	Nitrobenzene	36	< 36 U
78-59-1	Isophorone	36	< 36 U
88-75-5	2-Nitrophenol	180	< 180 U
105-67-9	2,4-Dimethylphenol	36	< 36 U
65-85-0	Benzoic Acid	360	< 360 U
111-91-1	bis(2-Chloroethoxy) Methane	36	< 36 U
120-83-2	2,4-Dichlorophenol	180	< 180 U
120-82-1	1,2,4-Trichlorobenzene	36	< 36 U
91-20-3	**Naphthalene**	**36**	**38**
106-47-8	4-Chloroaniline	180	< 180 U
87-68-3	Hexachlorobutadiene	36	< 36 U
59-50-7	4-Chloro-3-methylphenol	180	< 180 U
91-57-6	**2-Methylnaphthalene**	**36**	**28 J**
77-47-4	Hexachlorocyclopentadiene	180	< 180 U
88-06-2	2,4,6-Trichlorophenol	180	< 180 U
95-95-4	2,4,5-Trichlorophenol	180	< 180 U
91-58-7	2-Chloronaphthalene	36	< 36 U
88-74-4	2-Nitroaniline	180	< 180 U
131-11-3	Dimethylphthalate	36	< 36 U
208-96-8	Acenaphthylene	36	< 36 U
99-09-2	3-Nitroaniline	180	< 180 U
83-32-9	**Acenaphthene**	**36**	**26 J**
51-28-5	2,4-Dinitrophenol	360	< 360 U
100-02-7	4-Nitrophenol	180	< 180 U
132-64-9	**Dibenzofuran**	**36**	**24 J**
606-20-2	2,6-Dinitrotoluene	180	< 180 U
121-14-2	2,4-Dinitrotoluene	180	< 180 U
84-66-2	Diethylphthalate	36	< 36 U
7005-72-3	4-Chlorophenyl-phenylether	36	< 36 U
86-73-7	**Fluorene**	**36**	**46**
100-01-6	4-Nitroaniline	180	< 180 U
534-52-1	4,6-Dinitro-2-Methylphenol	360	< 360 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC12-2-3.1
SAMPLE

Lab Sample ID: QM30F
LIMS ID: 10-5176
Matrix: Sediment
Date Analyzed: 03/12/10 17:53

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	36	< 36 U
101-55-3	4-Bromophenyl-phenylether	36	< 36 U
118-74-1	Hexachlorobenzene	36	< 36 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**36**	**120**
86-74-8	Carbazole	36	< 36 U
120-12-7	**Anthracene**	**36**	**140**
84-74-2	Di-n-Butylphthalate	36	< 36 U
206-44-0	**Fluoranthene**	**36**	**760**
129-00-0	**Pyrene**	**36**	**990**
85-68-7	Butylbenzylphthalate	36	< 36 U
91-94-1	3,3'-Dichlorobenzidine	180	< 180 U
56-55-3	**Benzo(a)anthracene**	**36**	**350**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**36**	**2,000**
218-01-9	**Chrysene**	**36**	**530**
117-84-0	Di-n-Octyl phthalate	36	< 36 U
205-99-2	**Benzo(b)fluoranthene**	**36**	**420**
207-08-9	**Benzo(k)fluoranthene**	**36**	**420**
50-32-8	**Benzo(a)pyrene**	**36**	**380**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**36**	**82**
53-70-3	**Dibenz(a,h)anthracene**	**36**	**39**
191-24-2	**Benzo(g,h,i)perylene**	**36**	**87**
62-53-3	Aniline	36	< 36 U
90-12-0	1-Methylnaphthalene	36	< 36 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	53.2%	2-Fluorobiphenyl	50.8%
d14-p-Terphenyl	56.0%	d4-1,2-Dichlorobenzene	41.6%
d5-Phenol	47.2%	2-Fluorophenol	42.4%
2,4,6-Tribromophenol	66.9%	d4-2-Chlorophenol	41.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC13-0-1.6
SAMPLE

Lab Sample ID: QM80C
LIMS ID: 10-5593
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 14:55
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 50.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**50**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**31**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**100**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**36**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**56**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**30**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**26**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	**Diethylphthalate**	**20**	**20**
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**44**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC13-0-1.6
SAMPLE

Lab Sample ID: QM80C
LIMS ID: 10-5593
Matrix: Sediment
Date Analyzed: 03/15/10 14:55

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**210**
86-74-8	**Carbazole**	**20**	**48**
120-12-7	**Anthracene**	**20**	**160**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**470**
129-00-0	**Pyrene**	**20**	**580**
85-68-7	**Butylbenzylphthalate**	**20**	**49**
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**250**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**510**
218-01-9	**Chrysene**	**20**	**490**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**490**
207-08-9	**Benzo(k)fluoranthene**	**20**	**490**
50-32-8	**Benzo(a)pyrene**	**20**	**470**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**160**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**87**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**150**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**22**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	67.2%	d4-1,2-Dichlorobenzene	56.0%
d5-Phenol	81.3%	2-Fluorophenol	66.4%
2,4,6-Tribromophenol	93.3%	d4-2-Chlorophenol	66.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC13-1.6-4
SAMPLE

Lab Sample ID: QM80D
LIMS ID: 10-5594
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 15:27
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 8.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC13-1.6-4
SAMPLE

Lab Sample ID: QM80D
LIMS ID: 10-5594
Matrix: Sediment
Date Analyzed: 03/15/10 15:27

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**23**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**9.1 J**
207-08-9	**Benzo(k)fluoranthene**	**19**	**9.1 J**
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.0%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	65.6%	d4-1,2-Dichlorobenzene	56.0%
d5-Phenol	70.4%	2-Fluorophenol	54.4%
2,4,6-Tribromophenol	73.1%	d4-2-Chlorophenol	55.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC15-0-2.3
SAMPLE

Lab Sample ID: QM30G
LIMS ID: 10-5177
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 18:27
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 41.4%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**30**	**19 J**
111-44-4	Bis-(2-Chloroethyl) Ether	30	< 30 U
95-57-8	2-Chlorophenol	30	< 30 U
541-73-1	1,3-Dichlorobenzene	30	< 30 U
106-46-7	**1,4-Dichlorobenzene**	**30**	**15 J**
100-51-6	Benzyl Alcohol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	30	< 30 U
95-48-7	2-Methylphenol	30	< 30 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	30	< 30 U
106-44-5	4-Methylphenol	30	< 30 U
621-64-7	N-Nitroso-Di-N-Propylamine	150	< 150 U
67-72-1	Hexachloroethane	30	< 30 U
98-95-3	Nitrobenzene	30	< 30 U
78-59-1	Isophorone	30	< 30 U
88-75-5	2-Nitrophenol	150	< 150 U
105-67-9	2,4-Dimethylphenol	30	< 30 U
65-85-0	Benzoic Acid	300	< 300 U
111-91-1	bis(2-Chloroethoxy) Methane	30	< 30 U
120-83-2	2,4-Dichlorophenol	150	< 150 U
120-82-1	1,2,4-Trichlorobenzene	30	< 30 U
91-20-3	**Naphthalene**	**30**	**34**
106-47-8	4-Chloroaniline	150	< 150 U
87-68-3	Hexachlorobutadiene	30	< 30 U
59-50-7	4-Chloro-3-methylphenol	150	< 150 U
91-57-6	**2-Methylnaphthalene**	**30**	**20 J**
77-47-4	Hexachlorocyclopentadiene	150	< 150 U
88-06-2	2,4,6-Trichlorophenol	150	< 150 U
95-95-4	2,4,5-Trichlorophenol	150	< 150 U
91-58-7	2-Chloronaphthalene	30	< 30 U
88-74-4	2-Nitroaniline	150	< 150 U
131-11-3	Dimethylphthalate	30	< 30 U
208-96-8	**Acenaphthylene**	**30**	**32**
99-09-2	3-Nitroaniline	150	< 150 U
83-32-9	**Acenaphthene**	**30**	**22 J**
51-28-5	2,4-Dinitrophenol	300	< 300 U
100-02-7	4-Nitrophenol	150	< 150 U
132-64-9	**Dibenzofuran**	**30**	**17 J**
606-20-2	2,6-Dinitrotoluene	150	< 150 U
121-14-2	2,4-Dinitrotoluene	150	< 150 U
84-66-2	Diethylphthalate	30	< 30 U
7005-72-3	4-Chlorophenyl-phenylether	30	< 30 U
86-73-7	**Fluorene**	**30**	**28 J**
100-01-6	4-Nitroaniline	150	< 150 U
534-52-1	4,6-Dinitro-2-Methylphenol	300	< 300 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC15-0-2.3
SAMPLE

Lab Sample ID: QM30G
LIMS ID: 10-5177
Matrix: Sediment
Date Analyzed: 03/12/10 18:27

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	30	< 30 U
101-55-3	4-Bromophenyl-phenylether	30	< 30 U
118-74-1	Hexachlorobenzene	30	< 30 U
87-86-5	Pentachlorophenol	150	< 150 U
85-01-8	**Phenanthrene**	**30**	**170**
86-74-8	**Carbazole**	**30**	**35**
120-12-7	**Anthracene**	**30**	**110**
84-74-2	Di-n-Butylphthalate	30	< 30 U
206-44-0	**Fluoranthene**	**30**	**340**
129-00-0	**Pyrene**	**30**	**880**
85-68-7	Butylbenzylphthalate	30	< 30 U
91-94-1	3,3'-Dichlorobenzidine	150	< 150 U
56-55-3	**Benzo(a)anthracene**	**30**	**160**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**30**	**600**
218-01-9	**Chrysene**	**30**	**380**
117-84-0	Di-n-Octyl phthalate	30	< 30 U
205-99-2	**Benzo(b)fluoranthene**	**30**	**440**
207-08-9	**Benzo(k)fluoranthene**	**30**	**440**
50-32-8	**Benzo(a)pyrene**	**30**	**420**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**30**	**88**
53-70-3	**Dibenz(a,h)anthracene**	**30**	**44**
191-24-2	**Benzo(g,h,i)perylene**	**30**	**89**
62-53-3	Aniline	30	< 30 U
90-12-0	1-Methylnaphthalene	30	< 30 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	53.6%	2-Fluorobiphenyl	66.4%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	66.7%	2-Fluorophenol	63.2%
2,4,6-Tribromophenol	68.3%	d4-2-Chlorophenol	58.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC15-2.3-4
SAMPLE

Lab Sample ID: QM30H
LIMS ID: 10-5178
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 19:00
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**12 J**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC15-2.3-4
SAMPLE

Lab Sample ID: QM30H
LIMS ID: 10-5178
Matrix: Sediment
Date Analyzed: 03/12/10 19:00

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**54**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**17 J**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**45**
129-00-0	**Pyrene**	**20**	**61**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**26**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**13 J**
218-01-9	**Chrysene**	**20**	**27**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**14 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**14 J**
50-32-8	**Benzo(a)pyrene**	**20**	**20**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	38.6%	2-Fluorobiphenyl	49.2%
d14-p-Terphenyl	56.8%	d4-1,2-Dichlorobenzene	44.8%
d5-Phenol	53.1%	2-Fluorophenol	49.3%
2,4,6-Tribromophenol	55.2%	d4-2-Chlorophenol	46.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC18-0-2
SAMPLE

Lab Sample ID: QM30I
LIMS ID: 10-5179
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 19:34
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 40.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	30	< 30 U
111-44-4	Bis-(2-Chloroethyl) Ether	30	< 30 U
95-57-8	2-Chlorophenol	30	< 30 U
541-73-1	1,3-Dichlorobenzene	30	< 30 U
106-46-7	**1,4-Dichlorobenzene**	**30**	**16 J**
100-51-6	Benzyl Alcohol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	30	< 30 U
95-48-7	2-Methylphenol	30	< 30 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	30	< 30 U
106-44-5	4-Methylphenol	30	< 30 U
621-64-7	N-Nitroso-Di-N-Propylamine	150	< 150 U
67-72-1	Hexachloroethane	30	< 30 U
98-95-3	Nitrobenzene	30	< 30 U
78-59-1	Isophorone	30	< 30 U
88-75-5	2-Nitrophenol	150	< 150 U
105-67-9	2,4-Dimethylphenol	30	< 30 U
65-85-0	Benzoic Acid	300	< 300 U
111-91-1	bis(2-Chloroethoxy) Methane	30	< 30 U
120-83-2	2,4-Dichlorophenol	150	< 150 U
120-82-1	1,2,4-Trichlorobenzene	30	< 30 U
91-20-3	**Naphthalene**	**30**	**54**
106-47-8	4-Chloroaniline	150	< 150 U
87-68-3	Hexachlorobutadiene	30	< 30 U
59-50-7	4-Chloro-3-methylphenol	150	< 150 U
91-57-6	**2-Methylnaphthalene**	**30**	**22 J**
77-47-4	Hexachlorocyclopentadiene	150	< 150 U
88-06-2	2,4,6-Trichlorophenol	150	< 150 U
95-95-4	2,4,5-Trichlorophenol	150	< 150 U
91-58-7	2-Chloronaphthalene	30	< 30 U
88-74-4	2-Nitroaniline	150	< 150 U
131-11-3	Dimethylphthalate	30	< 30 U
208-96-8	**Acenaphthylene**	**30**	**43**
99-09-2	3-Nitroaniline	150	< 150 U
83-32-9	**Acenaphthene**	**30**	**30**
51-28-5	2,4-Dinitrophenol	300	< 300 U
100-02-7	4-Nitrophenol	150	< 150 U
132-64-9	**Dibenzofuran**	**30**	**28 J**
606-20-2	2,6-Dinitrotoluene	150	< 150 U
121-14-2	2,4-Dinitrotoluene	150	< 150 U
84-66-2	Diethylphthalate	30	< 30 U
7005-72-3	4-Chlorophenyl-phenylether	30	< 30 U
86-73-7	**Fluorene**	**30**	**39**
100-01-6	4-Nitroaniline	150	< 150 U
534-52-1	4,6-Dinitro-2-Methylphenol	300	< 300 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC18-0-2
SAMPLE

Lab Sample ID: QM30I
LIMS ID: 10-5179
Matrix: Sediment
Date Analyzed: 03/12/10 19:34

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	30	< 30 U
101-55-3	4-Bromophenyl-phenylether	30	< 30 U
118-74-1	Hexachlorobenzene	30	< 30 U
87-86-5	Pentachlorophenol	150	< 150 U
85-01-8	**Phenanthrene**	**30**	**180**
86-74-8	**Carbazole**	**30**	**50**
120-12-7	**Anthracene**	**30**	**150**
84-74-2	Di-n-Butylphthalate	30	< 30 U
206-44-0	**Fluoranthene**	**30**	**340**
129-00-0	**Pyrene**	**30**	**1,900**
85-68-7	Butylbenzylphthalate	30	< 30 U
91-94-1	3,3'-Dichlorobenzidine	150	< 150 U
56-55-3	**Benzo(a)anthracene**	**30**	**200**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**30**	**410**
218-01-9	**Chrysene**	**30**	**380**
117-84-0	Di-n-Octyl phthalate	30	< 30 U
205-99-2	**Benzo(b)fluoranthene**	**30**	**620**
207-08-9	**Benzo(k)fluoranthene**	**30**	**620**
50-32-8	**Benzo(a)pyrene**	**30**	**610**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**30**	**100**
53-70-3	**Dibenz(a,h)anthracene**	**30**	**57**
191-24-2	**Benzo(g,h,i)perylene**	**30**	**100**
62-53-3	Aniline	30	< 30 U
90-12-0	**1-Methylnaphthalene**	**30**	**17 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	78.8%
d14-p-Terphenyl	72.8%	d4-1,2-Dichlorobenzene	63.6%
d5-Phenol	80.0%	2-Fluorophenol	75.5%
2,4,6-Tribromophenol	96.3%	d4-2-Chlorophenol	68.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC18-2-4
SAMPLE

Lab Sample ID: QM30J
LIMS ID: 10-5180
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 21:15
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 14.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 37.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	36	< 36 U
111-44-4	Bis-(2-Chloroethyl) Ether	36	< 36 U
95-57-8	2-Chlorophenol	36	< 36 U
541-73-1	1,3-Dichlorobenzene	36	< 36 U
106-46-7	**1,4-Dichlorobenzene**	**36**	**29 J**
100-51-6	Benzyl Alcohol	36	< 36 U
95-50-1	1,2-Dichlorobenzene	36	< 36 U
95-48-7	2-Methylphenol	36	< 36 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	36	< 36 U
106-44-5	4-Methylphenol	36	< 36 U
621-64-7	N-Nitroso-Di-N-Propylamine	180	< 180 U
67-72-1	Hexachloroethane	36	< 36 U
98-95-3	Nitrobenzene	36	< 36 U
78-59-1	Isophorone	36	< 36 U
88-75-5	2-Nitrophenol	180	< 180 U
105-67-9	2,4-Dimethylphenol	36	< 36 U
65-85-0	Benzoic Acid	360	< 360 U
111-91-1	bis(2-Chloroethoxy) Methane	36	< 36 U
120-83-2	2,4-Dichlorophenol	180	< 180 U
120-82-1	1,2,4-Trichlorobenzene	36	< 36 U
91-20-3	**Naphthalene**	**36**	**37**
106-47-8	4-Chloroaniline	180	< 180 U
87-68-3	Hexachlorobutadiene	36	< 36 U
59-50-7	4-Chloro-3-methylphenol	180	< 180 U
91-57-6	**2-Methylnaphthalene**	**36**	**20 J**
77-47-4	Hexachlorocyclopentadiene	180	< 180 U
88-06-2	2,4,6-Trichlorophenol	180	< 180 U
95-95-4	2,4,5-Trichlorophenol	180	< 180 U
91-58-7	2-Chloronaphthalene	36	< 36 U
88-74-4	2-Nitroaniline	180	< 180 U
131-11-3	Dimethylphthalate	36	< 36 U
208-96-8	**Acenaphthylene**	**36**	**37**
99-09-2	3-Nitroaniline	180	< 180 U
83-32-9	**Acenaphthene**	**36**	**22 J**
51-28-5	2,4-Dinitrophenol	360	< 360 U
100-02-7	4-Nitrophenol	180	< 180 U
132-64-9	**Dibenzofuran**	**36**	**19 J**
606-20-2	2,6-Dinitrotoluene	180	< 180 U
121-14-2	2,4-Dinitrotoluene	180	< 180 U
84-66-2	Diethylphthalate	36	< 36 U
7005-72-3	4-Chlorophenyl-phenylether	36	< 36 U
86-73-7	**Fluorene**	**36**	**25 J**
100-01-6	4-Nitroaniline	180	< 180 U
534-52-1	4,6-Dinitro-2-Methylphenol	360	< 360 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC18-2-4
SAMPLE

Lab Sample ID: QM30J
LIMS ID: 10-5180
Matrix: Sediment
Date Analyzed: 03/12/10 21:15

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	36	< 36 U
101-55-3	4-Bromophenyl-phenylether	36	< 36 U
118-74-1	Hexachlorobenzene	36	< 36 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**36**	**130**
86-74-8	Carbazole	36	< 36 U
120-12-7	**Anthracene**	**36**	**150**
84-74-2	Di-n-Butylphthalate	36	< 36 U
206-44-0	**Fluoranthene**	**36**	**530**
129-00-0	**Pyrene**	**36**	**2,300**
85-68-7	Butylbenzylphthalate	36	< 36 U
91-94-1	3,3'-Dichlorobenzidine	180	< 180 U
56-55-3	**Benzo(a)anthracene**	**36**	**370**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**36**	**1,000**
218-01-9	**Chrysene**	**36**	**600**
117-84-0	Di-n-Octyl phthalate	36	< 36 U
205-99-2	**Benzo(b)fluoranthene**	**36**	**650**
207-08-9	**Benzo(k)fluoranthene**	**36**	**650**
50-32-8	**Benzo(a)pyrene**	**36**	**540**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**36**	**84**
53-70-3	**Dibenz(a,h)anthracene**	**36**	**44**
191-24-2	**Benzo(g,h,i)perylene**	**36**	**85**
62-53-3	Aniline	36	< 36 U
90-12-0	1-Methylnaphthalene	36	< 36 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.8%	2-Fluorobiphenyl	78.0%
d14-p-Terphenyl	80.8%	d4-1,2-Dichlorobenzene	62.8%
d5-Phenol	80.8%	2-Fluorophenol	75.2%
2,4,6-Tribromophenol	85.9%	d4-2-Chlorophenol	69.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC19-0-2.5
SAMPLE

Lab Sample ID: QL86A
LIMS ID: 10-4948
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 23:08
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 19.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	78	< 78 U
111-44-4	Bis-(2-Chloroethyl) Ether	78	< 78 U
95-57-8	2-Chlorophenol	78	< 78 U
541-73-1	1,3-Dichlorobenzene	78	< 78 U
106-46-7	**1,4-Dichlorobenzene**	**78**	**190**
100-51-6	Benzyl Alcohol	78	< 78 U
95-50-1	1,2-Dichlorobenzene	78	< 78 U
95-48-7	2-Methylphenol	78	< 78 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	78	< 78 U
106-44-5	4-Methylphenol	78	< 78 U
621-64-7	N-Nitroso-Di-N-Propylamine	390	< 390 U
67-72-1	Hexachloroethane	78	< 78 U
98-95-3	Nitrobenzene	78	< 78 U
78-59-1	Isophorone	78	< 78 U
88-75-5	2-Nitrophenol	390	< 390 U
105-67-9	2,4-Dimethylphenol	78	< 78 U
65-85-0	Benzoic Acid	780	< 780 U
111-91-1	bis(2-Chloroethoxy) Methane	78	< 78 U
120-83-2	2,4-Dichlorophenol	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	78	< 78 U
91-20-3	**Naphthalene**	**78**	**120**
106-47-8	4-Chloroaniline	390	< 390 U
87-68-3	Hexachlorobutadiene	78	< 78 U
59-50-7	4-Chloro-3-methylphenol	390	< 390 U
91-57-6	**2-Methylnaphthalene**	**78**	**72 J**
77-47-4	Hexachlorocyclopentadiene	390	< 390 U
88-06-2	2,4,6-Trichlorophenol	390	< 390 U
95-95-4	2,4,5-Trichlorophenol	390	< 390 U
91-58-7	2-Chloronaphthalene	78	< 78 U
88-74-4	2-Nitroaniline	390	< 390 U
131-11-3	Dimethylphthalate	78	< 78 U
208-96-8	**Acenaphthylene**	**78**	**31 J**
99-09-2	3-Nitroaniline	390	< 390 U
83-32-9	**Acenaphthene**	**78**	**140**
51-28-5	2,4-Dinitrophenol	780	< 780 U
100-02-7	4-Nitrophenol	390	< 390 U
132-64-9	**Dibenzofuran**	**78**	**68 J**
606-20-2	2,6-Dinitrotoluene	390	< 390 U
121-14-2	2,4-Dinitrotoluene	390	< 390 U
84-66-2	Diethylphthalate	78	< 78 U
7005-72-3	4-Chlorophenyl-phenylether	78	< 78 U
86-73-7	**Fluorene**	**78**	**120**
100-01-6	4-Nitroaniline	390	< 390 U
534-52-1	4,6-Dinitro-2-Methylphenol	780	< 780 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC19-0-2.5
SAMPLE

Lab Sample ID: QL86A
LIMS ID: 10-4948
Matrix: Sediment
Date Analyzed: 03/10/10 23:08

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	78	< 78 U
101-55-3	4-Bromophenyl-phenylether	78	< 78 U
118-74-1	Hexachlorobenzene	78	< 78 U
87-86-5	Pentachlorophenol	390	< 390 U
85-01-8	**Phenanthrene**	**78**	**840**
86-74-8	**Carbazole**	**78**	**100**
120-12-7	**Anthracene**	**78**	**270**
84-74-2	**Di-n-Butylphthalate**	**78**	**41 J**
206-44-0	**Fluoranthene**	**78**	**920**
129-00-0	**Pyrene**	**78**	**1,500**
85-68-7	**Butylbenzylphthalate**	**78**	**47 J**
91-94-1	3,3'-Dichlorobenzidine	390	< 390 U
56-55-3	**Benzo(a)anthracene**	**78**	**560**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**78**	**1,400**
218-01-9	**Chrysene**	**78**	**520**
117-84-0	Di-n-Octyl phthalate	78	< 78 U
205-99-2	**Benzo(b)fluoranthene**	**78**	**590**
207-08-9	**Benzo(k)fluoranthene**	**78**	**590**
50-32-8	**Benzo(a)pyrene**	**78**	**670**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**78**	**150**
53-70-3	Dibenz(a,h)anthracene	78	< 78 U
191-24-2	**Benzo(g,h,i)perylene**	**78**	**150**
62-53-3	Aniline	78	< 78 U
90-12-0	**1-Methylnaphthalene**	**78**	**60 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.1%	2-Fluorobiphenyl	70.1%
d14-p-Terphenyl	74.2%	d4-1,2-Dichlorobenzene	57.0%
d5-Phenol	67.7%	2-Fluorophenol	57.1%
2,4,6-Tribromophenol	73.4%	d4-2-Chlorophenol	61.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC19-2.5-4
SAMPLE

Lab Sample ID: QL86B
LIMS ID: 10-4949
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/09/10 19:54
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 23.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**17 J**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC19-2.5-4
SAMPLE

Lab Sample ID: QL86B
LIMS ID: 10-4949
Matrix: Sediment
Date Analyzed: 03/09/10 19:54

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**14 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	**Di-n-Butylphthalate**	**20**	**12 J**
206-44-0	**Fluoranthene**	**20**	**18 J**
129-00-0	**Pyrene**	**20**	**69**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**12 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**170**
218-01-9	**Chrysene**	**20**	**14 J**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**15 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**15 J**
50-32-8	**Benzo(a)pyrene**	**20**	**14 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.8%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	72.8%	2-Fluorophenol	67.2%
2,4,6-Tribromophenol	64.3%	d4-2-Chlorophenol	61.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC20-0.4-2.4
SAMPLE

Lab Sample ID: QL86C
LIMS ID: 10-4950
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/09/10 20:28
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	**4-Methylphenol**	**19**	**21**
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**23**
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	**2-Methylnaphthalene**	**19**	**20**
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**21**
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	**Acenaphthene**	**19**	**21**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	**Dibenzofuran**	**19**	**11 J**
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**47**
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC20-0.4-2.4
SAMPLE

Lab Sample ID: QL86C
LIMS ID: 10-4950
Matrix: Sediment
Date Analyzed: 03/09/10 20:28

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	**Phenanthrene**	**19**	**300**
86-74-8	Carbazole	19	< 19 U
120-12-7	**Anthracene**	**19**	**75**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**220**
129-00-0	**Pyrene**	**19**	**300**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	**Benzo(a)anthracene**	**19**	**110**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**23**
218-01-9	**Chrysene**	**19**	**120**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**62**
207-08-9	**Benzo(k)fluoranthene**	**19**	**62**
50-32-8	**Benzo(a)pyrene**	**19**	**110**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**36**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**14 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**37**
62-53-3	Aniline	19	< 19 U
90-12-0	**1-Methylnaphthalene**	**19**	**10 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	51.2%	2-Fluorobiphenyl	56.4%
d14-p-Terphenyl	65.2%	d4-1,2-Dichlorobenzene	50.8%
d5-Phenol	65.3%	2-Fluorophenol	59.7%
2,4,6-Tribromophenol	57.1%	d4-2-Chlorophenol	57.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC20-2.4-4.4
SAMPLE

Lab Sample ID: QL86D
LIMS ID: 10-4951
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/09/10 22:08
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC20-2.4-4.4
SAMPLE

Lab Sample ID: QL86D
LIMS ID: 10-4951
Matrix: Sediment
Date Analyzed: 03/09/10 22:08

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	**Di-n-Butylphthalate**	**19**	**23**
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**24**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.0%	2-Fluorobiphenyl	63.2%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	71.7%	2-Fluorophenol	67.2%
2,4,6-Tribromophenol	64.0%	d4-2-Chlorophenol	61.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC21-0-2
SAMPLE

Lab Sample ID: QL86E
LIMS ID: 10-4952
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/09/10 22:41
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 18.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 45.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	28	< 28 U
111-44-4	Bis-(2-Chloroethyl) Ether	28	< 28 U
95-57-8	2-Chlorophenol	28	< 28 U
541-73-1	1,3-Dichlorobenzene	28	< 28 U
106-46-7	**1,4-Dichlorobenzene**	**28**	**200**
100-51-6	Benzyl Alcohol	28	< 28 U
95-50-1	1,2-Dichlorobenzene	28	< 28 U
95-48-7	2-Methylphenol	28	< 28 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	28	< 28 U
106-44-5	**4-Methylphenol**	**28**	**28**
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	28	< 28 U
98-95-3	Nitrobenzene	28	< 28 U
78-59-1	Isophorone	28	< 28 U
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	28	< 28 U
65-85-0	Benzoic Acid	280	< 280 U
111-91-1	bis(2-Chloroethoxy) Methane	28	< 28 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	28	< 28 U
91-20-3	**Naphthalene**	**28**	**95**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	28	< 28 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**28**	**40**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	28	< 28 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	Dimethylphthalate	28	< 28 U
208-96-8	**Acenaphthylene**	**28**	**32**
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**28**	**200**
51-28-5	2,4-Dinitrophenol	280	< 280 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	**Dibenzofuran**	**28**	**80**
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	28	< 28 U
7005-72-3	4-Chlorophenyl-phenylether	28	< 28 U
86-73-7	**Fluorene**	**28**	**230**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	280	< 280 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC21-0-2
SAMPLE

Lab Sample ID: QL86E
LIMS ID: 10-4952
Matrix: Sediment
Date Analyzed: 03/09/10 22:41

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	28	< 28 U
101-55-3	4-Bromophenyl-phenylether	28	< 28 U
118-74-1	Hexachlorobenzene	28	< 28 U
87-86-5	Pentachlorophenol	140	< 140 U
85-01-8	**Phenanthrene**	**28**	**390**
86-74-8	**Carbazole**	**28**	**51**
120-12-7	**Anthracene**	**28**	**160**
84-74-2	**Di-n-Butylphthalate**	**28**	**60**
206-44-0	**Fluoranthene**	**28**	**590**
129-00-0	**Pyrene**	**28**	**970**
85-68-7	**Butylbenzylphthalate**	**28**	**56**
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**28**	**290**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**28**	**1,200**
218-01-9	**Chrysene**	**28**	**550**
117-84-0	Di-n-Octyl phthalate	28	< 28 U
205-99-2	**Benzo(b)fluoranthene**	**28**	**510**
207-08-9	**Benzo(k)fluoranthene**	**28**	**510**
50-32-8	**Benzo(a)pyrene**	**28**	**460**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**28**	**110**
53-70-3	Dibenz(a,h)anthracene	28	< 28 U
191-24-2	**Benzo(g,h,i)perylene**	**28**	**110**
62-53-3	Aniline	28	< 28 U
90-12-0	**1-Methylnaphthalene**	**28**	**35**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	54.0%	2-Fluorobiphenyl	65.6%
d14-p-Terphenyl	77.6%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	70.7%	2-Fluorophenol	63.7%
2,4,6-Tribromophenol	64.8%	d4-2-Chlorophenol	62.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC21-2-4
SAMPLE

Lab Sample ID: QL86F
LIMS ID: 10-4953
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 22:35
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 17.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 42.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	86	< 86 U
111-44-4	Bis-(2-Chloroethyl) Ether	86	< 86 U
95-57-8	2-Chlorophenol	86	< 86 U
541-73-1	1,3-Dichlorobenzene	86	< 86 U
106-46-7	**1,4-Dichlorobenzene**	**86**	**250**
100-51-6	Benzyl Alcohol	86	< 86 U
95-50-1	1,2-Dichlorobenzene	86	< 86 U
95-48-7	2-Methylphenol	86	< 86 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	86	< 86 U
106-44-5	4-Methylphenol	86	< 86 U
621-64-7	N-Nitroso-Di-N-Propylamine	430	< 430 U
67-72-1	Hexachloroethane	86	< 86 U
98-95-3	Nitrobenzene	86	< 86 U
78-59-1	Isophorone	86	< 86 U
88-75-5	2-Nitrophenol	430	< 430 U
105-67-9	2,4-Dimethylphenol	86	< 86 U
65-85-0	Benzoic Acid	860	< 860 U
111-91-1	bis(2-Chloroethoxy) Methane	86	< 86 U
120-83-2	2,4-Dichlorophenol	430	< 430 U
120-82-1	1,2,4-Trichlorobenzene	86	< 86 U
91-20-3	**Naphthalene**	**86**	**150**
106-47-8	4-Chloroaniline	430	< 430 U
87-68-3	Hexachlorobutadiene	86	< 86 U
59-50-7	4-Chloro-3-methylphenol	430	< 430 U
91-57-6	**2-Methylnaphthalene**	**86**	**74 J**
77-47-4	Hexachlorocyclopentadiene	430	< 430 U
88-06-2	2,4,6-Trichlorophenol	430	< 430 U
95-95-4	2,4,5-Trichlorophenol	430	< 430 U
91-58-7	2-Chloronaphthalene	86	< 86 U
88-74-4	2-Nitroaniline	430	< 430 U
131-11-3	Dimethylphthalate	86	< 86 U
208-96-8	Acenaphthylene	86	< 86 U
99-09-2	3-Nitroaniline	430	< 430 U
83-32-9	**Acenaphthene**	**86**	**75 J**
51-28-5	2,4-Dinitrophenol	860	< 860 U
100-02-7	4-Nitrophenol	430	< 430 U
132-64-9	**Dibenzofuran**	**86**	**59 J**
606-20-2	2,6-Dinitrotoluene	430	< 430 U
121-14-2	2,4-Dinitrotoluene	430	< 430 U
84-66-2	Diethylphthalate	86	< 86 U
7005-72-3	4-Chlorophenyl-phenylether	86	< 86 U
86-73-7	**Fluorene**	**86**	**96**
100-01-6	4-Nitroaniline	430	< 430 U
534-52-1	4,6-Dinitro-2-Methylphenol	860	< 860 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC21-2-4
SAMPLE

Lab Sample ID: QL86F
LIMS ID: 10-4953
Matrix: Sediment
Date Analyzed: 03/10/10 22:35

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	86	< 86 U
101-55-3	4-Bromophenyl-phenylether	86	< 86 U
118-74-1	Hexachlorobenzene	86	< 86 U
87-86-5	Pentachlorophenol	430	< 430 U
85-01-8	**Phenanthrene**	**86**	**430**
86-74-8	**Carbazole**	**86**	**52 J**
120-12-7	**Anthracene**	**86**	**230**
84-74-2	**Di-n-Butylphthalate**	**86**	**88**
206-44-0	**Fluoranthene**	**86**	**1,700**
129-00-0	**Pyrene**	**86**	**1,800**
85-68-7	**Butylbenzylphthalate**	**86**	**93**
91-94-1	3,3'-Dichlorobenzidine	430	< 430 U
56-55-3	**Benzo(a)anthracene**	**86**	**640**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**86**	**3,700**
218-01-9	**Chrysene**	**86**	**780**
117-84-0	Di-n-Octyl phthalate	86	< 86 U
205-99-2	**Benzo(b)fluoranthene**	**86**	**580**
207-08-9	**Benzo(k)fluoranthene**	**86**	**580**
50-32-8	**Benzo(a)pyrene**	**86**	**600**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**86**	**150**
53-70-3	Dibenz(a,h)anthracene	86	< 86 U
191-24-2	**Benzo(g,h,i)perylene**	**86**	**160**
62-53-3	Aniline	86	< 86 U
90-12-0	**1-Methylnaphthalene**	**86**	**51 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	51.6%	2-Fluorobiphenyl	69.1%
d14-p-Terphenyl	75.0%	d4-1,2-Dichlorobenzene	58.3%
d5-Phenol	71.4%	2-Fluorophenol	66.4%
2,4,6-Tribromophenol	55.9%	d4-2-Chlorophenol	62.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC23-0-1.3
SAMPLE

Lab Sample ID: QM57A
LIMS ID: 10-5375
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 13:44
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 24.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**29**
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	**2-Methylnaphthalene**	**20**	**24**
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**46**
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	**Acenaphthene**	**20**	**32**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	**Dibenzofuran**	**20**	**29**
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**42**
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC23-0-1.3
SAMPLE

Lab Sample ID: QM57A
LIMS ID: 10-5375
Matrix: Sediment
Date Analyzed: 03/18/10 13:44

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**250**
86-74-8	**Carbazole**	**20**	**66**
120-12-7	**Anthracene**	**20**	**200**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**600**
129-00-0	**Pyrene**	**20**	**810**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**280**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**430 B**
218-01-9	**Chrysene**	**20**	**550**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**460**
207-08-9	**Benzo(k)fluoranthene**	**20**	**460**
50-32-8	**Benzo(a)pyrene**	**20**	**460**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**180**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**94**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**170**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**18 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.4%	2-Fluorobiphenyl	69.2%
d14-p-Terphenyl	75.2%	d4-1,2-Dichlorobenzene	51.2%
d5-Phenol	72.8%	2-Fluorophenol	57.3%
2,4,6-Tribromophenol	96.0%	d4-2-Chlorophenol	58.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC23-1.3-3.2
SAMPLE

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 14:16
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 47.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	150	< 150 U
111-44-4	Bis-(2-Chloroethyl) Ether	150	< 150 U
95-57-8	2-Chlorophenol	150	< 150 U
541-73-1	1,3-Dichlorobenzene	150	< 150 U
106-46-7	1,4-Dichlorobenzene	150	< 150 U
100-51-6	Benzyl Alcohol	150	< 150 U
95-50-1	1,2-Dichlorobenzene	150	< 150 U
95-48-7	2-Methylphenol	150	< 150 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	150	< 150 U
106-44-5	4-Methylphenol	150	< 150 U
621-64-7	N-Nitroso-Di-N-Propylamine	750	< 750 U
67-72-1	Hexachloroethane	150	< 150 U
98-95-3	Nitrobenzene	150	< 150 U
78-59-1	Isophorone	150	< 150 U
88-75-5	2-Nitrophenol	750	< 750 U
105-67-9	2,4-Dimethylphenol	150	< 150 U
65-85-0	Benzoic Acid	1,500	< 1,500 U
111-91-1	bis(2-Chloroethoxy) Methane	150	< 150 U
120-83-2	2,4-Dichlorophenol	750	< 750 U
120-82-1	1,2,4-Trichlorobenzene	150	< 150 U
91-20-3	**Naphthalene**	**150**	**350**
106-47-8	4-Chloroaniline	750	< 750 U
87-68-3	Hexachlorobutadiene	150	< 150 U
59-50-7	4-Chloro-3-methylphenol	750	< 750 U
91-57-6	**2-Methylnaphthalene**	**150**	**230**
77-47-4	Hexachlorocyclopentadiene	750	< 750 U
88-06-2	2,4,6-Trichlorophenol	750	< 750 U
95-95-4	2,4,5-Trichlorophenol	750	< 750 U
91-58-7	2-Chloronaphthalene	150	< 150 U
88-74-4	2-Nitroaniline	750	< 750 U
131-11-3	Dimethylphthalate	150	< 150 U
208-96-8	**Acenaphthylene**	**150**	**260**
99-09-2	3-Nitroaniline	750	< 750 U
83-32-9	**Acenaphthene**	**150**	**800**
51-28-5	2,4-Dinitrophenol	1,500	< 1,500 U
100-02-7	4-Nitrophenol	750	< 750 U
132-64-9	**Dibenzofuran**	**150**	**530**
606-20-2	2,6-Dinitrotoluene	750	< 750 U
121-14-2	2,4-Dinitrotoluene	750	< 750 U
84-66-2	Diethylphthalate	150	< 150 U
7005-72-3	4-Chlorophenyl-phenylether	150	< 150 U
86-73-7	**Fluorene**	**150**	**1,100**
100-01-6	4-Nitroaniline	750	< 750 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,500	< 1,500 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC23-1.3-3.2
SAMPLE

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Date Analyzed: 03/18/10 14:16

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	150	< 150 U
101-55-3	4-Bromophenyl-phenylether	150	< 150 U
118-74-1	Hexachlorobenzene	150	< 150 U
87-86-5	Pentachlorophenol	750	< 750 U
85-01-8	**Phenanthrene**	**150**	**1,500**
86-74-8	**Carbazole**	**150**	**310**
120-12-7	**Anthracene**	**150**	**2,900**
84-74-2	Di-n-Butylphthalate	150	< 150 U
206-44-0	**Fluoranthene**	**150**	**10,000**
129-00-0	**Pyrene**	**150**	**20,000 ES**
85-68-7	Butylbenzylphthalate	150	< 150 U
91-94-1	3,3'-Dichlorobenzidine	750	< 750 U
56-55-3	**Benzo(a)anthracene**	**150**	**4,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**150**	**5,800 B**
218-01-9	**Chrysene**	**150**	**4,700**
117-84-0	Di-n-Octyl phthalate	150	< 150 U
205-99-2	**Benzo(b)fluoranthene**	**150**	**4,200**
207-08-9	**Benzo(k)fluoranthene**	**150**	**4,200**
50-32-8	**Benzo(a)pyrene**	**150**	**3,000**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**150**	**720**
53-70-3	**Dibenz(a,h)anthracene**	**150**	**330**
191-24-2	**Benzo(g,h,i)perylene**	**150**	**690**
62-53-3	Aniline	150	< 150 U
90-12-0	**1-Methylnaphthalene**	**150**	**140 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.7%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	96.7%	d4-1,2-Dichlorobenzene	53.8%
d5-Phenol	73.3%	2-Fluorophenol	58.2%
2,4,6-Tribromophenol	102%	d4-2-Chlorophenol	62.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC23-1.3-3.2
DILUTION

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 21:11
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 47.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	500	< 500 U
111-44-4	Bis-(2-Chloroethyl) Ether	500	< 500 U
95-57-8	2-Chlorophenol	500	< 500 U
541-73-1	1,3-Dichlorobenzene	500	< 500 U
106-46-7	1,4-Dichlorobenzene	500	< 500 U
100-51-6	Benzyl Alcohol	500	< 500 U
95-50-1	1,2-Dichlorobenzene	500	< 500 U
95-48-7	2-Methylphenol	500	< 500 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	500	< 500 U
106-44-5	4-Methylphenol	500	< 500 U
621-64-7	N-Nitroso-Di-N-Propylamine	2,500	< 2,500 U
67-72-1	Hexachloroethane	500	< 500 U
98-95-3	Nitrobenzene	500	< 500 U
78-59-1	Isophorone	500	< 500 U
88-75-5	2-Nitrophenol	2,500	< 2,500 U
105-67-9	2,4-Dimethylphenol	500	< 500 U
65-85-0	Benzoic Acid	5,000	< 5,000 U
111-91-1	bis(2-Chloroethoxy) Methane	500	< 500 U
120-83-2	2,4-Dichlorophenol	2,500	< 2,500 U
120-82-1	1,2,4-Trichlorobenzene	500	< 500 U
91-20-3	**Naphthalene**	**500**	**290 J**
106-47-8	4-Chloroaniline	2,500	< 2,500 U
87-68-3	Hexachlorobutadiene	500	< 500 U
59-50-7	4-Chloro-3-methylphenol	2,500	< 2,500 U
91-57-6	2-Methylnaphthalene	500	< 500 U
77-47-4	Hexachlorocyclopentadiene	2,500	< 2,500 U
88-06-2	2,4,6-Trichlorophenol	2,500	< 2,500 U
95-95-4	2,4,5-Trichlorophenol	2,500	< 2,500 U
91-58-7	2-Chloronaphthalene	500	< 500 U
88-74-4	2-Nitroaniline	2,500	< 2,500 U
131-11-3	Dimethylphthalate	500	< 500 U
208-96-8	Acenaphthylene	500	< 500 U
99-09-2	3-Nitroaniline	2,500	< 2,500 U
83-32-9	**Acenaphthene**	**500**	**730**
51-28-5	2,4-Dinitrophenol	5,000	< 5,000 U
100-02-7	4-Nitrophenol	2,500	< 2,500 U
132-64-9	**Dibenzofuran**	**500**	**460 J**
606-20-2	2,6-Dinitrotoluene	2,500	< 2,500 U
121-14-2	2,4-Dinitrotoluene	2,500	< 2,500 U
84-66-2	Diethylphthalate	500	< 500 U
7005-72-3	4-Chlorophenyl-phenylether	500	< 500 U
86-73-7	**Fluorene**	**500**	**930**
100-01-6	4-Nitroaniline	2,500	< 2,500 U
534-52-1	4,6-Dinitro-2-Methylphenol	5,000	< 5,000 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC23-1.3-3.2
DILUTION

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Date Analyzed: 03/18/10 21:11

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	500	< 500 U
101-55-3	4-Bromophenyl-phenylether	500	< 500 U
118-74-1	Hexachlorobenzene	500	< 500 U
87-86-5	Pentachlorophenol	2,500	< 2,500 U
85-01-8	**Phenanthrene**	**500**	**1,900**
86-74-8	**Carbazole**	**500**	**320 J**
120-12-7	**Anthracene**	**500**	**2,300**
84-74-2	Di-n-Butylphthalate	500	< 500 U
206-44-0	**Fluoranthene**	**500**	**12,000**
129-00-0	**Pyrene**	**500**	**18,000**
85-68-7	Butylbenzylphthalate	500	< 500 U
91-94-1	3,3'-Dichlorobenzidine	2,500	< 2,500 U
56-55-3	**Benzo(a)anthracene**	**500**	**3,500**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**500**	**5,000 B**
218-01-9	**Chrysene**	**500**	**4,900**
117-84-0	Di-n-Octyl phthalate	500	< 500 U
205-99-2	**Benzo(b)fluoranthene**	**500**	**3,700**
207-08-9	**Benzo(k)fluoranthene**	**500**	**3,700**
50-32-8	**Benzo(a)pyrene**	**500**	**3,000**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**500**	**610**
53-70-3	**Dibenz(a,h)anthracene**	**500**	**320 J**
191-24-2	**Benzo(g,h,i)perylene**	**500**	**530**
62-53-3	Aniline	500	< 500 U
90-12-0	1-Methylnaphthalene	500	< 500 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	54.8%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	70.8%	d4-1,2-Dichlorobenzene	48.4%
d5-Phenol	58.4%	2-Fluorophenol	45.6%
2,4,6-Tribromophenol	70.9%	d4-2-Chlorophenol	48.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC26-0-2.7
SAMPLE

Lab Sample ID: QM57C
LIMS ID: 10-5377
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 14:48
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 22.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**38**
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	**2-Methylnaphthalene**	**19**	**16 J**
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	**Acenaphthene**	**19**	**18 J**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	**Dibenzofuran**	**19**	**9.8 J**
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**12 J**
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC26-0-2.7
SAMPLE

Lab Sample ID: QM57C
LIMS ID: 10-5377
Matrix: Sediment
Date Analyzed: 03/18/10 14:48

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	**Phenanthrene**	**19**	**32**
86-74-8	**Carbazole**	**19**	**11 J**
120-12-7	**Anthracene**	**19**	**22**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**62**
129-00-0	**Pyrene**	**19**	**270**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	**Benzo(a)anthracene**	**19**	**40**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**82 B**
218-01-9	**Chrysene**	**19**	**79**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**110**
207-08-9	**Benzo(k)fluoranthene**	**19**	**110**
50-32-8	**Benzo(a)pyrene**	**19**	**120**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**42**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**21**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**42**
62-53-3	Aniline	19	< 19 U
90-12-0	**1-Methylnaphthalene**	**19**	**13 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	75.2%	d4-1,2-Dichlorobenzene	57.6%
d5-Phenol	75.7%	2-Fluorophenol	64.3%
2,4,6-Tribromophenol	88.3%	d4-2-Chlorophenol	63.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC26-2.7-4
SAMPLE

Lab Sample ID: QM57D
LIMS ID: 10-5378
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 15:20
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC26-2.7-4
SAMPLE

Lab Sample ID: QM57D
LIMS ID: 10-5378
Matrix: Sediment
Date Analyzed: 03/18/10 15:20

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**37 B**
218-01-9	Chrysene	20	< 20 U
117-84-0	**Di-n-Octyl phthalate**	**20**	**31**
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.8%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	76.0%	d4-1,2-Dichlorobenzene	50.8%
d5-Phenol	71.5%	2-Fluorophenol	57.9%
2,4,6-Tribromophenol	87.7%	d4-2-Chlorophenol	59.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-0-2
SAMPLE

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 16:57
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 54.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	40	< 40 U
111-44-4	Bis-(2-Chloroethyl) Ether	40	< 40 U
95-57-8	2-Chlorophenol	40	< 40 U
541-73-1	1,3-Dichlorobenzene	40	< 40 U
106-46-7	1,4-Dichlorobenzene	40	< 40 U
100-51-6	Benzyl Alcohol	40	< 40 U
95-50-1	1,2-Dichlorobenzene	40	< 40 U
95-48-7	2-Methylphenol	40	< 40 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	40	< 40 U
106-44-5	**4-Methylphenol**	**40**	**23 J**
621-64-7	N-Nitroso-Di-N-Propylamine	200	< 200 U
67-72-1	Hexachloroethane	40	< 40 U
98-95-3	Nitrobenzene	40	< 40 U
78-59-1	Isophorone	40	< 40 U
88-75-5	2-Nitrophenol	200	< 200 U
105-67-9	2,4-Dimethylphenol	40	< 40 U
65-85-0	Benzoic Acid	400	< 400 U
111-91-1	bis(2-Chloroethoxy) Methane	40	< 40 U
120-83-2	2,4-Dichlorophenol	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	40	< 40 U
91-20-3	**Naphthalene**	**40**	**69**
106-47-8	4-Chloroaniline	200	< 200 U
87-68-3	Hexachlorobutadiene	40	< 40 U
59-50-7	4-Chloro-3-methylphenol	200	< 200 U
91-57-6	**2-Methylnaphthalene**	**40**	**54**
77-47-4	Hexachlorocyclopentadiene	200	< 200 U
88-06-2	2,4,6-Trichlorophenol	200	< 200 U
95-95-4	2,4,5-Trichlorophenol	200	< 200 U
91-58-7	2-Chloronaphthalene	40	< 40 U
88-74-4	2-Nitroaniline	200	< 200 U
131-11-3	Dimethylphthalate	40	< 40 U
208-96-8	**Acenaphthylene**	**40**	**87**
99-09-2	3-Nitroaniline	200	< 200 U
83-32-9	**Acenaphthene**	**40**	**140**
51-28-5	2,4-Dinitrophenol	400	< 400 U
100-02-7	4-Nitrophenol	200	< 200 U
132-64-9	**Dibenzofuran**	**40**	**78**
606-20-2	2,6-Dinitrotoluene	200	< 200 U
121-14-2	2,4-Dinitrotoluene	200	< 200 U
84-66-2	Diethylphthalate	40	< 40 U
7005-72-3	4-Chlorophenyl-phenylether	40	< 40 U
86-73-7	**Fluorene**	**40**	**220**
100-01-6	4-Nitroaniline	200	< 200 U
534-52-1	4,6-Dinitro-2-Methylphenol	400	< 400 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-0-2
SAMPLE

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Date Analyzed: 03/18/10 16:57

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	40	< 40 U
101-55-3	4-Bromophenyl-phenylether	40	< 40 U
118-74-1	Hexachlorobenzene	40	< 40 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	**Phenanthrene**	**40**	**440**
86-74-8	**Carbazole**	**40**	**77**
120-12-7	**Anthracene**	**40**	**480**
84-74-2	Di-n-Butylphthalate	40	< 40 U
206-44-0	**Fluoranthene**	**40**	**2,400**
129-00-0	**Pyrene**	**40**	**2,800**
85-68-7	Butylbenzylphthalate	40	< 40 U
91-94-1	3,3'-Dichlorobenzidine	200	< 200 U
56-55-3	**Benzo(a)anthracene**	**40**	**850**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**40**	**4,600 ES**
218-01-9	**Chrysene**	**40**	**1,400**
117-84-0	Di-n-Octyl phthalate	40	< 40 U
205-99-2	**Benzo(b)fluoranthene**	**40**	**1,000**
207-08-9	**Benzo(k)fluoranthene**	**40**	**1,000**
50-32-8	**Benzo(a)pyrene**	**40**	**1,100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**40**	**280**
53-70-3	**Dibenz(a,h)anthracene**	**40**	**140**
191-24-2	**Benzo(g,h,i)perylene**	**40**	**280**
62-53-3	Aniline	40	< 40 U
90-12-0	**1-Methylnaphthalene**	**40**	**40**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	54.0%	2-Fluorobiphenyl	58.8%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	47.2%
d5-Phenol	66.1%	2-Fluorophenol	55.7%
2,4,6-Tribromophenol	92.3%	d4-2-Chlorophenol	55.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-0-2
DILUTION

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 21:43
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 54.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	120	< 120 U
111-44-4	Bis-(2-Chloroethyl) Ether	120	< 120 U
95-57-8	2-Chlorophenol	120	< 120 U
541-73-1	1,3-Dichlorobenzene	120	< 120 U
106-46-7	1,4-Dichlorobenzene	120	< 120 U
100-51-6	Benzyl Alcohol	120	< 120 U
95-50-1	1,2-Dichlorobenzene	120	< 120 U
95-48-7	2-Methylphenol	120	< 120 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	120	< 120 U
106-44-5	4-Methylphenol	120	< 120 U
621-64-7	N-Nitroso-Di-N-Propylamine	600	< 600 U
67-72-1	Hexachloroethane	120	< 120 U
98-95-3	Nitrobenzene	120	< 120 U
78-59-1	Isophorone	120	< 120 U
88-75-5	2-Nitrophenol	600	< 600 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
111-91-1	bis(2-Chloroethoxy) Methane	120	< 120 U
120-83-2	2,4-Dichlorophenol	600	< 600 U
120-82-1	1,2,4-Trichlorobenzene	120	< 120 U
91-20-3	**Naphthalene**	**120**	**75 J**
106-47-8	4-Chloroaniline	600	< 600 U
87-68-3	Hexachlorobutadiene	120	< 120 U
59-50-7	4-Chloro-3-methylphenol	600	< 600 U
91-57-6	2-Methylnaphthalene	120	< 120 U
77-47-4	Hexachlorocyclopentadiene	600	< 600 U
88-06-2	2,4,6-Trichlorophenol	600	< 600 U
95-95-4	2,4,5-Trichlorophenol	600	< 600 U
91-58-7	2-Chloronaphthalene	120	< 120 U
88-74-4	2-Nitroaniline	600	< 600 U
131-11-3	Dimethylphthalate	120	< 120 U
208-96-8	**Acenaphthylene**	**120**	**100 J**
99-09-2	3-Nitroaniline	600	< 600 U
83-32-9	**Acenaphthene**	**120**	**150**
51-28-5	2,4-Dinitrophenol	1,200	< 1,200 U
100-02-7	4-Nitrophenol	600	< 600 U
132-64-9	**Dibenzofuran**	**120**	**83 J**
606-20-2	2,6-Dinitrotoluene	600	< 600 U
121-14-2	2,4-Dinitrotoluene	600	< 600 U
84-66-2	Diethylphthalate	120	< 120 U
7005-72-3	4-Chlorophenyl-phenylether	120	< 120 U
86-73-7	**Fluorene**	**120**	**240**
100-01-6	4-Nitroaniline	600	< 600 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,200	< 1,200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-0-2
DILUTION

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Date Analyzed: 03/18/10 21:43

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	120	< 120 U
101-55-3	4-Bromophenyl-phenylether	120	< 120 U
118-74-1	Hexachlorobenzene	120	< 120 U
87-86-5	Pentachlorophenol	600	< 600 U
85-01-8	**Phenanthrene**	**120**	**440**
86-74-8	Carbazole	120	< 120 U
120-12-7	**Anthracene**	**120**	**480**
84-74-2	Di-n-Butylphthalate	120	< 120 U
206-44-0	**Fluoranthene**	**120**	**2,700**
129-00-0	**Pyrene**	**120**	**2,800**
85-68-7	Butylbenzylphthalate	120	< 120 U
91-94-1	3,3'-Dichlorobenzidine	600	< 600 U
56-55-3	**Benzo(a)anthracene**	**120**	**740**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**120**	**4,700 B**
218-01-9	**Chrysene**	**120**	**1,400**
117-84-0	Di-n-Octyl phthalate	120	< 120 U
205-99-2	**Benzo(b)fluoranthene**	**120**	**1,100**
207-08-9	**Benzo(k)fluoranthene**	**120**	**1,100**
50-32-8	**Benzo(a)pyrene**	**120**	**1,100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**120**	**200**
53-70-3	**Dibenz(a,h)anthracene**	**120**	**95 J**
191-24-2	**Benzo(g,h,i)perylene**	**120**	**200**
62-53-3	Aniline	120	< 120 U
90-12-0	**1-Methylnaphthalene**	**120**	**56 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.8%	2-Fluorobiphenyl	65.9%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	52.1%
d5-Phenol	67.1%	2-Fluorophenol	53.0%
2,4,6-Tribromophenol	90.4%	d4-2-Chlorophenol	57.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-2-4
SAMPLE

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 17:29
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 51.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	120	< 120 U
111-44-4	Bis-(2-Chloroethyl) Ether	120	< 120 U
95-57-8	2-Chlorophenol	120	< 120 U
541-73-1	1,3-Dichlorobenzene	120	< 120 U
106-46-7	1,4-Dichlorobenzene	120	< 120 U
100-51-6	Benzyl Alcohol	120	< 120 U
95-50-1	1,2-Dichlorobenzene	120	< 120 U
95-48-7	2-Methylphenol	120	< 120 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	120	< 120 U
106-44-5	4-Methylphenol	120	< 120 U
621-64-7	N-Nitroso-Di-N-Propylamine	600	< 600 U
67-72-1	Hexachloroethane	120	< 120 U
98-95-3	Nitrobenzene	120	< 120 U
78-59-1	Isophorone	120	< 120 U
88-75-5	2-Nitrophenol	600	< 600 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
111-91-1	bis(2-Chloroethoxy) Methane	120	< 120 U
120-83-2	2,4-Dichlorophenol	600	< 600 U
120-82-1	1,2,4-Trichlorobenzene	120	< 120 U
91-20-3	**Naphthalene**	**120**	**1,800**
106-47-8	4-Chloroaniline	600	< 600 U
87-68-3	Hexachlorobutadiene	120	< 120 U
59-50-7	4-Chloro-3-methylphenol	600	< 600 U
91-57-6	**2-Methylnaphthalene**	**120**	**340**
77-47-4	Hexachlorocyclopentadiene	600	< 600 U
88-06-2	2,4,6-Trichlorophenol	600	< 600 U
95-95-4	2,4,5-Trichlorophenol	600	< 600 U
91-58-7	2-Chloronaphthalene	120	< 120 U
88-74-4	2-Nitroaniline	600	< 600 U
131-11-3	Dimethylphthalate	120	< 120 U
208-96-8	Acenaphthylene	120	< 120 U
99-09-2	3-Nitroaniline	600	< 600 U
83-32-9	**Acenaphthene**	**120**	**6,100**
51-28-5	2,4-Dinitrophenol	1,200	< 1,200 U
100-02-7	4-Nitrophenol	600	< 600 U
132-64-9	**Dibenzofuran**	**120**	**3,500**
606-20-2	2,6-Dinitrotoluene	600	< 600 U
121-14-2	2,4-Dinitrotoluene	600	< 600 U
84-66-2	Diethylphthalate	120	< 120 U
7005-72-3	4-Chlorophenyl-phenylether	120	< 120 U
86-73-7	**Fluorene**	**120**	**5,500**
100-01-6	4-Nitroaniline	600	< 600 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,200	< 1,200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-2-4
SAMPLE

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Date Analyzed: 03/18/10 17:29

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	120	< 120 U
101-55-3	4-Bromophenyl-phenylether	120	< 120 U
118-74-1	Hexachlorobenzene	120	< 120 U
87-86-5	Pentachlorophenol	600	< 600 U
85-01-8	**Phenanthrene**	**120**	**10,000 E**
86-74-8	**Carbazole**	**120**	**120**
120-12-7	**Anthracene**	**120**	**4,200**
84-74-2	Di-n-Butylphthalate	120	< 120 U
206-44-0	**Fluoranthene**	**120**	**12,000 ES**
129-00-0	**Pyrene**	**120**	**8,300**
85-68-7	Butylbenzylphthalate	120	< 120 U
91-94-1	3,3'-Dichlorobenzidine	600	< 600 U
56-55-3	**Benzo(a)anthracene**	**120**	**2,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**120**	**2,200 B**
218-01-9	**Chrysene**	**120**	**3,000**
117-84-0	Di-n-Octyl phthalate	120	< 120 U
205-99-2	**Benzo(b)fluoranthene**	**120**	**1,400**
207-08-9	**Benzo(k)fluoranthene**	**120**	**1,400**
50-32-8	**Benzo(a)pyrene**	**120**	**1,300**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**120**	**310**
53-70-3	**Dibenz(a,h)anthracene**	**120**	**160**
191-24-2	**Benzo(g,h,i)perylene**	**120**	**300**
62-53-3	Aniline	120	< 120 U
90-12-0	**1-Methylnaphthalene**	**120**	**1,900**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.6%	2-Fluorobiphenyl	68.3%
d14-p-Terphenyl	78.1%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	66.8%	2-Fluorophenol	54.2%
2,4,6-Tribromophenol	91.2%	d4-2-Chlorophenol	60.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-2-4
DILUTION

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 22:15
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 51.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	400	< 400 U
111-44-4	Bis-(2-Chloroethyl) Ether	400	< 400 U
95-57-8	2-Chlorophenol	400	< 400 U
541-73-1	1,3-Dichlorobenzene	400	< 400 U
106-46-7	1,4-Dichlorobenzene	400	< 400 U
100-51-6	Benzyl Alcohol	400	< 400 U
95-50-1	1,2-Dichlorobenzene	400	< 400 U
95-48-7	2-Methylphenol	400	< 400 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	< 400 U
106-44-5	4-Methylphenol	400	< 400 U
621-64-7	N-Nitroso-Di-N-Propylamine	2,000	< 2,000 U
67-72-1	Hexachloroethane	400	< 400 U
98-95-3	Nitrobenzene	400	< 400 U
78-59-1	Isophorone	400	< 400 U
88-75-5	2-Nitrophenol	2,000	< 2,000 U
105-67-9	2,4-Dimethylphenol	400	< 400 U
65-85-0	Benzoic Acid	4,000	< 4,000 U
111-91-1	bis(2-Chloroethoxy) Methane	400	< 400 U
120-83-2	2,4-Dichlorophenol	2,000	< 2,000 U
120-82-1	1,2,4-Trichlorobenzene	400	< 400 U
91-20-3	**Naphthalene**	**400**	**1,600**
106-47-8	4-Chloroaniline	2,000	< 2,000 U
87-68-3	Hexachlorobutadiene	400	< 400 U
59-50-7	4-Chloro-3-methylphenol	2,000	< 2,000 U
91-57-6	**2-Methylnaphthalene**	**400**	**280 J**
77-47-4	Hexachlorocyclopentadiene	2,000	< 2,000 U
88-06-2	2,4,6-Trichlorophenol	2,000	< 2,000 U
95-95-4	2,4,5-Trichlorophenol	2,000	< 2,000 U
91-58-7	2-Chloronaphthalene	400	< 400 U
88-74-4	2-Nitroaniline	2,000	< 2,000 U
131-11-3	Dimethylphthalate	400	< 400 U
208-96-8	Acenaphthylene	400	< 400 U
99-09-2	3-Nitroaniline	2,000	< 2,000 U
83-32-9	**Acenaphthene**	**400**	**5,700**
51-28-5	2,4-Dinitrophenol	4,000	< 4,000 U
100-02-7	4-Nitrophenol	2,000	< 2,000 U
132-64-9	**Dibenzofuran**	**400**	**3,100**
606-20-2	2,6-Dinitrotoluene	2,000	< 2,000 U
121-14-2	2,4-Dinitrotoluene	2,000	< 2,000 U
84-66-2	Diethylphthalate	400	< 400 U
7005-72-3	4-Chlorophenyl-phenylether	400	< 400 U
86-73-7	**Fluorene**	**400**	**5,000**
100-01-6	4-Nitroaniline	2,000	< 2,000 U
534-52-1	4,6-Dinitro-2-Methylphenol	4,000	< 4,000 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC27-2-4
DILUTION

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Date Analyzed: 03/18/10 22:15

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	400	< 400 U
101-55-3	4-Bromophenyl-phenylether	400	< 400 U
118-74-1	Hexachlorobenzene	400	< 400 U
87-86-5	Pentachlorophenol	2,000	< 2,000 U
85-01-8	**Phenanthrene**	**400**	**12,000**
86-74-8	**Carbazole**	**400**	**120 J**
120-12-7	**Anthracene**	**400**	**2,800**
84-74-2	Di-n-Butylphthalate	400	< 400 U
206-44-0	**Fluoranthene**	**400**	**12,000**
129-00-0	**Pyrene**	**400**	**7,800**
85-68-7	Butylbenzylphthalate	400	< 400 U
91-94-1	3,3'-Dichlorobenzidine	2,000	< 2,000 U
56-55-3	**Benzo(a)anthracene**	**400**	**2,200**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**400**	**2,000 B**
218-01-9	**Chrysene**	**400**	**2,600**
117-84-0	Di-n-Octyl phthalate	400	< 400 U
205-99-2	**Benzo(b)fluoranthene**	**400**	**1,300**
207-08-9	**Benzo(k)fluoranthene**	**400**	**1,300**
50-32-8	**Benzo(a)pyrene**	**400**	**1,200**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**400**	**240 J**
53-70-3	**Dibenz(a,h)anthracene**	**400**	**120 J**
191-24-2	**Benzo(g,h,i)perylene**	**400**	**240 J**
62-53-3	Aniline	400	< 400 U
90-12-0	**1-Methylnaphthalene**	**400**	**1,700**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	50.0%	2-Fluorobiphenyl	61.6%
d14-p-Terphenyl	64.4%	d4-1,2-Dichlorobenzene	50.8%
d5-Phenol	56.5%	2-Fluorophenol	47.2%
2,4,6-Tribromophenol	69.6%	d4-2-Chlorophenol	49.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC29-0-2
SAMPLE

Lab Sample ID: QM57W
LIMS ID: 10-5435
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 14:54
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 49.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	91	< 91 U
111-44-4	Bis-(2-Chloroethyl) Ether	91	< 91 U
95-57-8	2-Chlorophenol	91	< 91 U
541-73-1	1,3-Dichlorobenzene	91	< 91 U
106-46-7	1,4-Dichlorobenzene	91	< 91 U
100-51-6	Benzyl Alcohol	91	< 91 U
95-50-1	1,2-Dichlorobenzene	91	< 91 U
95-48-7	2-Methylphenol	91	< 91 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	91	< 91 U
106-44-5	4-Methylphenol	91	< 91 U
621-64-7	N-Nitroso-Di-N-Propylamine	450	< 450 U
67-72-1	Hexachloroethane	91	< 91 U
98-95-3	Nitrobenzene	91	< 91 U
78-59-1	Isophorone	91	< 91 U
88-75-5	2-Nitrophenol	450	< 450 U
105-67-9	2,4-Dimethylphenol	91	< 91 U
65-85-0	Benzoic Acid	910	< 910 U
111-91-1	bis(2-Chloroethoxy) Methane	91	< 91 U
120-83-2	2,4-Dichlorophenol	450	< 450 U
120-82-1	1,2,4-Trichlorobenzene	91	< 91 U
91-20-3	**Naphthalene**	**91**	**380**
106-47-8	4-Chloroaniline	450	< 450 U
87-68-3	Hexachlorobutadiene	91	< 91 U
59-50-7	4-Chloro-3-methylphenol	450	< 450 U
91-57-6	**2-Methylnaphthalene**	**91**	**110**
77-47-4	Hexachlorocyclopentadiene	450	< 450 U
88-06-2	2,4,6-Trichlorophenol	450	< 450 U
95-95-4	2,4,5-Trichlorophenol	450	< 450 U
91-58-7	2-Chloronaphthalene	91	< 91 U
88-74-4	2-Nitroaniline	450	< 450 U
131-11-3	Dimethylphthalate	91	< 91 U
208-96-8	Acenaphthylene	91	< 91 U
99-09-2	3-Nitroaniline	450	< 450 U
83-32-9	**Acenaphthene**	**91**	**850**
51-28-5	2,4-Dinitrophenol	910	< 910 U
100-02-7	4-Nitrophenol	450	< 450 U
132-64-9	**Dibenzofuran**	**91**	**260**
606-20-2	2,6-Dinitrotoluene	450	< 450 U
121-14-2	2,4-Dinitrotoluene	450	< 450 U
84-66-2	Diethylphthalate	91	< 91 U
7005-72-3	4-Chlorophenyl-phenylether	91	< 91 U
86-73-7	**Fluorene**	**91**	**410**
100-01-6	4-Nitroaniline	450	< 450 U
534-52-1	4,6-Dinitro-2-Methylphenol	910	< 910 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC29-0-2
SAMPLE

Lab Sample ID: QM57W
LIMS ID: 10-5435
Matrix: Sediment
Date Analyzed: 03/19/10 14:54

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	91	< 91 U
101-55-3	4-Bromophenyl-phenylether	91	< 91 U
118-74-1	Hexachlorobenzene	91	< 91 U
87-86-5	Pentachlorophenol	450	< 450 U
85-01-8	**Phenanthrene**	**91**	**570**
86-74-8	**Carbazole**	**91**	**140**
120-12-7	**Anthracene**	**91**	**2,000**
84-74-2	**Di-n-Butylphthalate**	**91**	**180**
206-44-0	**Fluoranthene**	**91**	**6,900**
129-00-0	**Pyrene**	**91**	**6,600**
85-68-7	Butylbenzylphthalate	91	< 91 U
91-94-1	3,3'-Dichlorobenzidine	450	< 450 U
56-55-3	**Benzo(a)anthracene**	**91**	**2,500**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**91**	**1,400 B**
218-01-9	**Chrysene**	**91**	**2,800**
117-84-0	Di-n-Octyl phthalate	91	< 91 U
205-99-2	**Benzo(b)fluoranthene**	**91**	**1,700**
207-08-9	**Benzo(k)fluoranthene**	**91**	**1,700**
50-32-8	**Benzo(a)pyrene**	**91**	**1,700**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**91**	**520**
53-70-3	**Dibenz(a,h)anthracene**	**91**	**240**
191-24-2	**Benzo(g,h,i)perylene**	**91**	**520**
62-53-3	Aniline	91	< 91 U
90-12-0	**1-Methylnaphthalene**	**91**	**82 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.1%	2-Fluorobiphenyl	72.7%
d14-p-Terphenyl	82.7%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	78.3%	2-Fluorophenol	65.4%
2,4,6-Tribromophenol	105%	d4-2-Chlorophenol	66.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC29-2-3.9
SAMPLE

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 15:27
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	< 59 U
111-44-4	Bis-(2-Chloroethyl) Ether	59	< 59 U
95-57-8	2-Chlorophenol	59	< 59 U
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	Benzyl Alcohol	59	< 59 U
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	< 59 U
106-44-5	4-Methylphenol	59	< 59 U
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	59	< 59 U
98-95-3	Nitrobenzene	59	< 59 U
78-59-1	Isophorone	59	< 59 U
88-75-5	2-Nitrophenol	300	< 300 U
105-67-9	2,4-Dimethylphenol	59	< 59 U
65-85-0	Benzoic Acid	590	< 590 U
111-91-1	bis(2-Chloroethoxy) Methane	59	< 59 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	**Naphthalene**	**59**	**11,000 ES**
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	59	< 59 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
91-57-6	**2-Methylnaphthalene**	**59**	**5,400 E**
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	59	< 59 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	59	< 59 U
208-96-8	Acenaphthylene	59	< 59 U
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	**Acenaphthene**	**59**	**7,000 ES**
51-28-5	2,4-Dinitrophenol	590	< 590 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	**Dibenzofuran**	**59**	**4,800 E**
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U
84-66-2	Diethylphthalate	59	< 59 U
7005-72-3	4-Chlorophenyl-phenylether	59	< 59 U
86-73-7	**Fluorene**	**59**	**7,000 ES**
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	590	< 590 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC29-2-3.9
SAMPLE

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Date Analyzed: 03/19/10 15:27

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
101-55-3	4-Bromophenyl-phenylether	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	**Phenanthrene**	**59**	**5,500 ES**
86-74-8	**Carbazole**	**59**	**230**
120-12-7	**Anthracene**	**59**	**4,300**
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	**Fluoranthene**	**59**	**7,000 ES**
129-00-0	**Pyrene**	**59**	**5,300 ES**
85-68-7	Butylbenzylphthalate	59	< 59 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	**Benzo(a)anthracene**	**59**	**1,900**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**59**	**210 B**
218-01-9	**Chrysene**	**59**	**2,000**
117-84-0	Di-n-Octyl phthalate	59	< 59 U
205-99-2	**Benzo(b)fluoranthene**	**59**	**1,400**
207-08-9	**Benzo(k)fluoranthene**	**59**	**1,400**
50-32-8	**Benzo(a)pyrene**	**59**	**1,300**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**59**	**440**
53-70-3	**Dibenz(a,h)anthracene**	**59**	**210**
191-24-2	**Benzo(g,h,i)perylene**	**59**	**410**
62-53-3	Aniline	59	< 59 U
90-12-0	**1-Methylnaphthalene**	**59**	**5,100 E**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.8%	2-Fluorobiphenyl	63.8%
d14-p-Terphenyl	54.8%	d4-1,2-Dichlorobenzene	52.4%
d5-Phenol	75.0%	2-Fluorophenol	61.9%
2,4,6-Tribromophenol	82.4%	d4-2-Chlorophenol	64.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC29-2-3.9
DILUTION

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 17:26
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 15.0
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	300	< 300 U
111-44-4	Bis-(2-Chloroethyl) Ether	300	< 300 U
95-57-8	2-Chlorophenol	300	< 300 U
541-73-1	1,3-Dichlorobenzene	300	< 300 U
106-46-7	1,4-Dichlorobenzene	300	< 300 U
100-51-6	Benzyl Alcohol	300	< 300 U
95-50-1	1,2-Dichlorobenzene	300	< 300 U
95-48-7	2-Methylphenol	300	< 300 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	300	< 300 U
106-44-5	4-Methylphenol	300	< 300 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,500	< 1,500 U
67-72-1	Hexachloroethane	300	< 300 U
98-95-3	Nitrobenzene	300	< 300 U
78-59-1	Isophorone	300	< 300 U
88-75-5	2-Nitrophenol	1,500	< 1,500 U
105-67-9	2,4-Dimethylphenol	300	< 300 U
65-85-0	Benzoic Acid	3,000	< 3,000 U
111-91-1	bis(2-Chloroethoxy) Methane	300	< 300 U
120-83-2	2,4-Dichlorophenol	1,500	< 1,500 U
120-82-1	1,2,4-Trichlorobenzene	300	< 300 U
91-20-3	**Naphthalene**	**300**	**17,000**
106-47-8	4-Chloroaniline	1,500	< 1,500 U
87-68-3	Hexachlorobutadiene	300	< 300 U
59-50-7	4-Chloro-3-methylphenol	1,500	< 1,500 U
91-57-6	**2-Methylnaphthalene**	**300**	**4,400**
77-47-4	Hexachlorocyclopentadiene	1,500	< 1,500 U
88-06-2	2,4,6-Trichlorophenol	1,500	< 1,500 U
95-95-4	2,4,5-Trichlorophenol	1,500	< 1,500 U
91-58-7	2-Chloronaphthalene	300	< 300 U
88-74-4	2-Nitroaniline	1,500	< 1,500 U
131-11-3	Dimethylphthalate	300	< 300 U
208-96-8	Acenaphthylene	300	< 300 U
99-09-2	3-Nitroaniline	1,500	< 1,500 U
83-32-9	**Acenaphthene**	**300**	**6,800**
51-28-5	2,4-Dinitrophenol	3,000	< 3,000 U
100-02-7	4-Nitrophenol	1,500	< 1,500 U
132-64-9	**Dibenzofuran**	**300**	**4,000**
606-20-2	2,6-Dinitrotoluene	1,500	< 1,500 U
121-14-2	2,4-Dinitrotoluene	1,500	< 1,500 U
84-66-2	Diethylphthalate	300	< 300 U
7005-72-3	4-Chlorophenyl-phenylether	300	< 300 U
86-73-7	**Fluorene**	**300**	**5,200**
100-01-6	4-Nitroaniline	1,500	< 1,500 U
534-52-1	4,6-Dinitro-2-Methylphenol	3,000	< 3,000 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC29-2-3.9
DILUTION

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Date Analyzed: 03/19/10 17:26

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	300	< 300 U
101-55-3	4-Bromophenyl-phenylether	300	< 300 U
118-74-1	Hexachlorobenzene	300	< 300 U
87-86-5	Pentachlorophenol	1,500	< 1,500 U
85-01-8	**Phenanthrene**	**300**	**7,000**
86-74-8	**Carbazole**	**300**	**170 J**
120-12-7	**Anthracene**	**300**	**1,700**
84-74-2	Di-n-Butylphthalate	300	< 300 U
206-44-0	**Fluoranthene**	**300**	**8,700**
129-00-0	**Pyrene**	**300**	**4,600**
85-68-7	Butylbenzylphthalate	300	< 300 U
91-94-1	3,3'-Dichlorobenzidine	1,500	< 1,500 U
56-55-3	**Benzo(a)anthracene**	**300**	**1,600**
117-81-7	bis(2-Ethylhexyl)phthalate	300	< 300 U
218-01-9	**Chrysene**	**300**	**1,900**
117-84-0	Di-n-Octyl phthalate	300	< 300 U
205-99-2	**Benzo(b)fluoranthene**	**300**	**950**
207-08-9	**Benzo(k)fluoranthene**	**300**	**950**
50-32-8	**Benzo(a)pyrene**	**300**	**1,000**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**300**	**350**
53-70-3	**Dibenz(a,h)anthracene**	**300**	**180 J**
191-24-2	**Benzo(g,h,i)perylene**	**300**	**340**
62-53-3	Aniline	300	< 300 U
90-12-0	**1-Methylnaphthalene**	**300**	**4,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	46.8%	2-Fluorobiphenyl	49.8%
d14-p-Terphenyl	39.0%	d4-1,2-Dichlorobenzene	33.6%
d5-Phenol	53.6%	2-Fluorophenol	44.4%
2,4,6-Tribromophenol	38.4%	d4-2-Chlorophenol	43.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC30-0-2
SAMPLE

Lab Sample ID: QM57G
LIMS ID: 10-5381
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 18:01
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**16 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**34**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**22**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**43**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**30**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**24**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**36**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC30-0-2
SAMPLE

Lab Sample ID: QM57G
LIMS ID: 10-5381
Matrix: Sediment
Date Analyzed: 03/18/10 18:01

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**220**
86-74-8	**Carbazole**	**20**	**46**
120-12-7	**Anthracene**	**20**	**130**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**450**
129-00-0	**Pyrene**	**20**	**580**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**200**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**420 B**
218-01-9	**Chrysene**	**20**	**370**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**400**
207-08-9	**Benzo(k)fluoranthene**	**20**	**400**
50-32-8	**Benzo(a)pyrene**	**20**	**380**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**110**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**58**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**110**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**14 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	72.8%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	71.5%	2-Fluorophenol	58.9%
2,4,6-Tribromophenol	94.7%	d4-2-Chlorophenol	61.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC30-2-4.3
SAMPLE

Lab Sample ID: QM57H
LIMS ID: 10-5382
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 18:32
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 43.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	26	< 26 U
111-44-4	Bis-(2-Chloroethyl) Ether	26	< 26 U
95-57-8	2-Chlorophenol	26	< 26 U
541-73-1	1,3-Dichlorobenzene	26	< 26 U
106-46-7	**1,4-Dichlorobenzene**	**26**	**15 J**
100-51-6	Benzyl Alcohol	26	< 26 U
95-50-1	1,2-Dichlorobenzene	26	< 26 U
95-48-7	2-Methylphenol	26	< 26 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	26	< 26 U
106-44-5	4-Methylphenol	26	< 26 U
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 U
67-72-1	Hexachloroethane	26	< 26 U
98-95-3	Nitrobenzene	26	< 26 U
78-59-1	Isophorone	26	< 26 U
88-75-5	2-Nitrophenol	130	< 130 U
105-67-9	2,4-Dimethylphenol	26	< 26 U
65-85-0	Benzoic Acid	260	< 260 U
111-91-1	bis(2-Chloroethoxy) Methane	26	< 26 U
120-83-2	2,4-Dichlorophenol	130	< 130 U
120-82-1	1,2,4-Trichlorobenzene	26	< 26 U
91-20-3	**Naphthalene**	**26**	**63**
106-47-8	4-Chloroaniline	130	< 130 U
87-68-3	Hexachlorobutadiene	26	< 26 U
59-50-7	4-Chloro-3-methylphenol	130	< 130 U
91-57-6	**2-Methylnaphthalene**	**26**	**23 J**
77-47-4	Hexachlorocyclopentadiene	130	< 130 U
88-06-2	2,4,6-Trichlorophenol	130	< 130 U
95-95-4	2,4,5-Trichlorophenol	130	< 130 U
91-58-7	2-Chloronaphthalene	26	< 26 U
88-74-4	2-Nitroaniline	130	< 130 U
131-11-3	Dimethylphthalate	26	< 26 U
208-96-8	**Acenaphthylene**	**26**	**41**
99-09-2	3-Nitroaniline	130	< 130 U
83-32-9	**Acenaphthene**	**26**	**53**
51-28-5	2,4-Dinitrophenol	260	< 260 U
100-02-7	4-Nitrophenol	130	< 130 U
132-64-9	**Dibenzofuran**	**26**	**51**
606-20-2	2,6-Dinitrotoluene	130	< 130 U
121-14-2	2,4-Dinitrotoluene	130	< 130 U
84-66-2	Diethylphthalate	26	< 26 U
7005-72-3	4-Chlorophenyl-phenylether	26	< 26 U
86-73-7	**Fluorene**	**26**	**66**
100-01-6	4-Nitroaniline	130	< 130 U
534-52-1	4,6-Dinitro-2-Methylphenol	260	< 260 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC30-2-4.3
SAMPLE

Lab Sample ID: QM57H
LIMS ID: 10-5382
Matrix: Sediment
Date Analyzed: 03/18/10 18:32

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	26	< 26 U
101-55-3	4-Bromophenyl-phenylether	26	< 26 U
118-74-1	Hexachlorobenzene	26	< 26 U
87-86-5	Pentachlorophenol	130	< 130 U
85-01-8	**Phenanthrene**	**26**	**250**
86-74-8	**Carbazole**	**26**	**49**
120-12-7	**Anthracene**	**26**	**150**
84-74-2	Di-n-Butylphthalate	26	< 26 U
206-44-0	**Fluoranthene**	**26**	**480**
129-00-0	**Pyrene**	**26**	**920**
85-68-7	Butylbenzylphthalate	26	< 26 U
91-94-1	3,3'-Dichlorobenzidine	130	< 130 U
56-55-3	**Benzo(a)anthracene**	**26**	**200**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**26**	**450 B**
218-01-9	**Chrysene**	**26**	**350**
117-84-0	Di-n-Octyl phthalate	26	< 26 U
205-99-2	**Benzo(b)fluoranthene**	**26**	**430**
207-08-9	**Benzo(k)fluoranthene**	**26**	**430**
50-32-8	**Benzo(a)pyrene**	**26**	**400**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**26**	**110**
53-70-3	**Dibenz(a,h)anthracene**	**26**	**60**
191-24-2	**Benzo(g,h,i)perylene**	**26**	**100**
62-53-3	Aniline	26	< 26 U
90-12-0	**1-Methylnaphthalene**	**26**	**27**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	48.4%	2-Fluorobiphenyl	58.8%
d14-p-Terphenyl	62.8%	d4-1,2-Dichlorobenzene	43.6%
d5-Phenol	58.9%	2-Fluorophenol	49.1%
2,4,6-Tribromophenol	77.9%	d4-2-Chlorophenol	49.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-0-2
SAMPLE

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 19:04
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	32	< 32 U
111-44-4	Bis-(2-Chloroethyl) Ether	32	< 32 U
95-57-8	2-Chlorophenol	32	< 32 U
541-73-1	1,3-Dichlorobenzene	32	< 32 U
106-46-7	**1,4-Dichlorobenzene**	**32**	**57**
100-51-6	Benzyl Alcohol	32	< 32 U
95-50-1	1,2-Dichlorobenzene	32	< 32 U
95-48-7	2-Methylphenol	32	< 32 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	32	< 32 U
106-44-5	4-Methylphenol	32	< 32 U
621-64-7	N-Nitroso-Di-N-Propylamine	160	< 160 U
67-72-1	Hexachloroethane	32	< 32 U
98-95-3	Nitrobenzene	32	< 32 U
78-59-1	Isophorone	32	< 32 U
88-75-5	2-Nitrophenol	160	< 160 U
105-67-9	2,4-Dimethylphenol	32	< 32 U
65-85-0	Benzoic Acid	320	< 320 U
111-91-1	bis(2-Chloroethoxy) Methane	32	< 32 U
120-83-2	2,4-Dichlorophenol	160	< 160 U
120-82-1	1,2,4-Trichlorobenzene	32	< 32 U
91-20-3	**Naphthalene**	**32**	**1,000**
106-47-8	4-Chloroaniline	160	< 160 U
87-68-3	Hexachlorobutadiene	32	< 32 U
59-50-7	4-Chloro-3-methylphenol	160	< 160 U
91-57-6	**2-Methylnaphthalene**	**32**	**1,100**
77-47-4	Hexachlorocyclopentadiene	160	< 160 U
88-06-2	2,4,6-Trichlorophenol	160	< 160 U
95-95-4	2,4,5-Trichlorophenol	160	< 160 U
91-58-7	2-Chloronaphthalene	32	< 32 U
88-74-4	2-Nitroaniline	160	< 160 U
131-11-3	Dimethylphthalate	32	< 32 U
208-96-8	Acenaphthylene	32	< 32 U
99-09-2	3-Nitroaniline	160	< 160 U
83-32-9	**Acenaphthene**	**32**	**1,300**
51-28-5	2,4-Dinitrophenol	320	< 320 U
100-02-7	4-Nitrophenol	160	< 160 U
132-64-9	**Dibenzofuran**	**32**	**880**
606-20-2	2,6-Dinitrotoluene	160	< 160 U
121-14-2	2,4-Dinitrotoluene	160	< 160 U
84-66-2	Diethylphthalate	32	< 32 U
7005-72-3	4-Chlorophenyl-phenylether	32	< 32 U
86-73-7	**Fluorene**	**32**	**1,400**
100-01-6	4-Nitroaniline	160	< 160 U
534-52-1	4,6-Dinitro-2-Methylphenol	320	< 320 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-0-2
SAMPLE

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Date Analyzed: 03/18/10 19:04

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	32	< 32 U
101-55-3	4-Bromophenyl-phenylether	32	< 32 U
118-74-1	Hexachlorobenzene	32	< 32 U
87-86-5	Pentachlorophenol	160	< 160 U
85-01-8	**Phenanthrene**	**32**	**3,300 ES**
86-74-8	**Carbazole**	**32**	**88**
120-12-7	**Anthracene**	**32**	**870**
84-74-2	Di-n-Butylphthalate	32	< 32 U
206-44-0	**Fluoranthene**	**32**	**3,100 ES**
129-00-0	**Pyrene**	**32**	**2,300**
85-68-7	Butylbenzylphthalate	32	< 32 U
91-94-1	3,3'-Dichlorobenzidine	160	< 160 U
56-55-3	**Benzo(a)anthracene**	**32**	**820**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**32**	**2,100 BE**
218-01-9	**Chrysene**	**32**	**1,100**
117-84-0	Di-n-Octyl phthalate	32	< 32 U
205-99-2	**Benzo(b)fluoranthene**	**32**	**560**
207-08-9	**Benzo(k)fluoranthene**	**32**	**560**
50-32-8	**Benzo(a)pyrene**	**32**	**520**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**32**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**32**	**65**
191-24-2	**Benzo(g,h,i)perylene**	**32**	**160**
62-53-3	Aniline	32	< 32 U
90-12-0	**1-Methylnaphthalene**	**32**	**940**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	59.2%
d14-p-Terphenyl	66.0%	d4-1,2-Dichlorobenzene	50.4%
d5-Phenol	67.5%	2-Fluorophenol	54.4%
2,4,6-Tribromophenol	91.7%	d4-2-Chlorophenol	56.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-0-2
DILUTION

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 22:46
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	95	< 95 U
111-44-4	Bis-(2-Chloroethyl) Ether	95	< 95 U
95-57-8	2-Chlorophenol	95	< 95 U
541-73-1	1,3-Dichlorobenzene	95	< 95 U
106-46-7	**1,4-Dichlorobenzene**	**95**	**56 J**
100-51-6	Benzyl Alcohol	95	< 95 U
95-50-1	1,2-Dichlorobenzene	95	< 95 U
95-48-7	2-Methylphenol	95	< 95 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	95	< 95 U
106-44-5	4-Methylphenol	95	< 95 U
621-64-7	N-Nitroso-Di-N-Propylamine	480	< 480 U
67-72-1	Hexachloroethane	95	< 95 U
98-95-3	Nitrobenzene	95	< 95 U
78-59-1	Isophorone	95	< 95 U
88-75-5	2-Nitrophenol	480	< 480 U
105-67-9	2,4-Dimethylphenol	95	< 95 U
65-85-0	Benzoic Acid	950	< 950 U
111-91-1	bis(2-Chloroethoxy) Methane	95	< 95 U
120-83-2	2,4-Dichlorophenol	480	< 480 U
120-82-1	1,2,4-Trichlorobenzene	95	< 95 U
91-20-3	**Naphthalene**	**95**	**1,100**
106-47-8	4-Chloroaniline	480	< 480 U
87-68-3	Hexachlorobutadiene	95	< 95 U
59-50-7	4-Chloro-3-methylphenol	480	< 480 U
91-57-6	**2-Methylnaphthalene**	**95**	**1,100**
77-47-4	Hexachlorocyclopentadiene	480	< 480 U
88-06-2	2,4,6-Trichlorophenol	480	< 480 U
95-95-4	2,4,5-Trichlorophenol	480	< 480 U
91-58-7	2-Chloronaphthalene	95	< 95 U
88-74-4	2-Nitroaniline	480	< 480 U
131-11-3	Dimethylphthalate	95	< 95 U
208-96-8	Acenaphthylene	95	< 95 U
99-09-2	3-Nitroaniline	480	< 480 U
83-32-9	**Acenaphthene**	**95**	**1,400**
51-28-5	2,4-Dinitrophenol	950	< 950 U
100-02-7	4-Nitrophenol	480	< 480 U
132-64-9	**Dibenzofuran**	**95**	**900**
606-20-2	2,6-Dinitrotoluene	480	< 480 U
121-14-2	2,4-Dinitrotoluene	480	< 480 U
84-66-2	Diethylphthalate	95	< 95 U
7005-72-3	4-Chlorophenyl-phenylether	95	< 95 U
86-73-7	**Fluorene**	**95**	**1,500**
100-01-6	4-Nitroaniline	480	< 480 U
534-52-1	4,6-Dinitro-2-Methylphenol	950	< 950 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-0-2
DILUTION

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Date Analyzed: 03/18/10 22:46

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	95	< 95 U
101-55-3	4-Bromophenyl-phenylether	95	< 95 U
118-74-1	Hexachlorobenzene	95	< 95 U
87-86-5	Pentachlorophenol	480	< 480 U
85-01-8	**Phenanthrene**	**95**	**4,100**
86-74-8	**Carbazole**	**95**	**98**
120-12-7	**Anthracene**	**95**	**650**
84-74-2	Di-n-Butylphthalate	95	< 95 U
206-44-0	**Fluoranthene**	**95**	**3,700**
129-00-0	**Pyrene**	**95**	**2,300**
85-68-7	Butylbenzylphthalate	95	< 95 U
91-94-1	3,3'-Dichlorobenzidine	480	< 480 U
56-55-3	**Benzo(a)anthracene**	**95**	**780**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**95**	**2,200 B**
218-01-9	**Chrysene**	**95**	**1,000**
117-84-0	Di-n-Octyl phthalate	95	< 95 U
205-99-2	**Benzo(b)fluoranthene**	**95**	**590**
207-08-9	**Benzo(k)fluoranthene**	**95**	**590**
50-32-8	**Benzo(a)pyrene**	**95**	**520**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**95**	**110**
53-70-3	**Dibenz(a,h)anthracene**	**95**	**55 J**
191-24-2	**Benzo(g,h,i)perylene**	**95**	**120**
62-53-3	Aniline	95	< 95 U
90-12-0	**1-Methylnaphthalene**	**95**	**940**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	70.4%	2-Fluorobiphenyl	61.4%
d14-p-Terphenyl	63.1%	d4-1,2-Dichlorobenzene	49.0%
d5-Phenol	62.5%	2-Fluorophenol	51.9%
2,4,6-Tribromophenol	74.3%	d4-2-Chlorophenol	55.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-2-4
SAMPLE

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 19:36
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 51.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	96	< 96 U
111-44-4	Bis-(2-Chloroethyl) Ether	96	< 96 U
95-57-8	2-Chlorophenol	96	< 96 U
541-73-1	1,3-Dichlorobenzene	96	< 96 U
106-46-7	**1,4-Dichlorobenzene**	**96**	**73 J**
100-51-6	Benzyl Alcohol	96	< 96 U
95-50-1	1,2-Dichlorobenzene	96	< 96 U
95-48-7	2-Methylphenol	96	< 96 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	96	< 96 U
106-44-5	4-Methylphenol	96	< 96 U
621-64-7	N-Nitroso-Di-N-Propylamine	480	< 480 U
67-72-1	Hexachloroethane	96	< 96 U
98-95-3	Nitrobenzene	96	< 96 U
78-59-1	Isophorone	96	< 96 U
88-75-5	2-Nitrophenol	480	< 480 U
105-67-9	2,4-Dimethylphenol	96	< 96 U
65-85-0	Benzoic Acid	960	< 960 U
111-91-1	bis(2-Chloroethoxy) Methane	96	< 96 U
120-83-2	2,4-Dichlorophenol	480	< 480 U
120-82-1	1,2,4-Trichlorobenzene	96	< 96 U
91-20-3	**Naphthalene**	**96**	**450**
106-47-8	4-Chloroaniline	480	< 480 U
87-68-3	Hexachlorobutadiene	96	< 96 U
59-50-7	4-Chloro-3-methylphenol	480	< 480 U
91-57-6	**2-Methylnaphthalene**	**96**	**350**
77-47-4	Hexachlorocyclopentadiene	480	< 480 U
88-06-2	2,4,6-Trichlorophenol	480	< 480 U
95-95-4	2,4,5-Trichlorophenol	480	< 480 U
91-58-7	2-Chloronaphthalene	96	< 96 U
88-74-4	2-Nitroaniline	480	< 480 U
131-11-3	Dimethylphthalate	96	< 96 U
208-96-8	Acenaphthylene	96	< 96 U
99-09-2	3-Nitroaniline	480	< 480 U
83-32-9	**Acenaphthene**	**96**	**1,500**
51-28-5	2,4-Dinitrophenol	960	< 960 U
100-02-7	4-Nitrophenol	480	< 480 U
132-64-9	**Dibenzofuran**	**96**	**740**
606-20-2	2,6-Dinitrotoluene	480	< 480 U
121-14-2	2,4-Dinitrotoluene	480	< 480 U
84-66-2	Diethylphthalate	96	< 96 U
7005-72-3	4-Chlorophenyl-phenylether	96	< 96 U
86-73-7	**Fluorene**	**96**	**1,800**
100-01-6	4-Nitroaniline	480	< 480 U
534-52-1	4,6-Dinitro-2-Methylphenol	960	< 960 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-2-4
SAMPLE

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Date Analyzed: 03/18/10 19:36

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	96	< 96 U
101-55-3	4-Bromophenyl-phenylether	96	< 96 U
118-74-1	Hexachlorobenzene	96	< 96 U
87-86-5	Pentachlorophenol	480	< 480 U
85-01-8	**Phenanthrene**	**96**	**5,200**
86-74-8	**Carbazole**	**96**	**140**
120-12-7	**Anthracene**	**96**	**1,200**
84-74-2	Di-n-Butylphthalate	96	< 96 U
206-44-0	**Fluoranthene**	**96**	**4,900**
129-00-0	**Pyrene**	**96**	**3,800**
85-68-7	Butylbenzylphthalate	96	< 96 U
91-94-1	3,3'-Dichlorobenzidine	480	< 480 U
56-55-3	**Benzo(a)anthracene**	**96**	**1,500**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**96**	**660 B**
218-01-9	**Chrysene**	**96**	**1,800**
117-84-0	Di-n-Octyl phthalate	96	< 96 U
205-99-2	**Benzo(b)fluoranthene**	**96**	**980**
207-08-9	**Benzo(k)fluoranthene**	**96**	**980**
50-32-8	**Benzo(a)pyrene**	**96**	**1,100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**96**	**300**
53-70-3	**Dibenz(a,h)anthracene**	**96**	**150**
191-24-2	**Benzo(g,h,i)perylene**	**96**	**340**
62-53-3	Aniline	96	< 96 U
90-12-0	**1-Methylnaphthalene**	**96**	**430**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	98.9%	2-Fluorobiphenyl	63.5%
d14-p-Terphenyl	77.3%	d4-1,2-Dichlorobenzene	53.5%
d5-Phenol	59.5%	2-Fluorophenol	47.0%
2,4,6-Tribromophenol	87.2%	d4-2-Chlorophenol	52.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-2-4
DILUTION

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 23:18
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 51.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	320	< 320 U
111-44-4	Bis-(2-Chloroethyl) Ether	320	< 320 U
95-57-8	2-Chlorophenol	320	< 320 U
541-73-1	1,3-Dichlorobenzene	320	< 320 U
106-46-7	1,4-Dichlorobenzene	320	< 320 U
100-51-6	Benzyl Alcohol	320	< 320 U
95-50-1	1,2-Dichlorobenzene	320	< 320 U
95-48-7	2-Methylphenol	320	< 320 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	320	< 320 U
106-44-5	4-Methylphenol	320	< 320 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,600	< 1,600 U
67-72-1	Hexachloroethane	320	< 320 U
98-95-3	Nitrobenzene	320	< 320 U
78-59-1	Isophorone	320	< 320 U
88-75-5	2-Nitrophenol	1,600	< 1,600 U
105-67-9	2,4-Dimethylphenol	320	< 320 U
65-85-0	Benzoic Acid	3,200	< 3,200 U
111-91-1	bis(2-Chloroethoxy) Methane	320	< 320 U
120-83-2	2,4-Dichlorophenol	1,600	< 1,600 U
120-82-1	1,2,4-Trichlorobenzene	320	< 320 U
91-20-3	**Naphthalene**	**320**	**500**
106-47-8	4-Chloroaniline	1,600	< 1,600 U
87-68-3	Hexachlorobutadiene	320	< 320 U
59-50-7	4-Chloro-3-methylphenol	1,600	< 1,600 U
91-57-6	**2-Methylnaphthalene**	**320**	**340**
77-47-4	Hexachlorocyclopentadiene	1,600	< 1,600 U
88-06-2	2,4,6-Trichlorophenol	1,600	< 1,600 U
95-95-4	2,4,5-Trichlorophenol	1,600	< 1,600 U
91-58-7	2-Chloronaphthalene	320	< 320 U
88-74-4	2-Nitroaniline	1,600	< 1,600 U
131-11-3	Dimethylphthalate	320	< 320 U
208-96-8	Acenaphthylene	320	< 320 U
99-09-2	3-Nitroaniline	1,600	< 1,600 U
83-32-9	**Acenaphthene**	**320**	**1,700**
51-28-5	2,4-Dinitrophenol	3,200	< 3,200 U
100-02-7	4-Nitrophenol	1,600	< 1,600 U
132-64-9	**Dibenzofuran**	**320**	**830**
606-20-2	2,6-Dinitrotoluene	1,600	< 1,600 U
121-14-2	2,4-Dinitrotoluene	1,600	< 1,600 U
84-66-2	Diethylphthalate	320	< 320 U
7005-72-3	4-Chlorophenyl-phenylether	320	< 320 U
86-73-7	**Fluorene**	**320**	**1,900**
100-01-6	4-Nitroaniline	1,600	< 1,600 U
534-52-1	4,6-Dinitro-2-Methylphenol	3,200	< 3,200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC32-2-4
DILUTION

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Date Analyzed: 03/18/10 23:18

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	320	< 320 U
101-55-3	4-Bromophenyl-phenylether	320	< 320 U
118-74-1	Hexachlorobenzene	320	< 320 U
87-86-5	Pentachlorophenol	1,600	< 1,600 U
85-01-8	**Phenanthrene**	**320**	**6,100**
86-74-8	**Carbazole**	**320**	**150 J**
120-12-7	**Anthracene**	**320**	**1,000**
84-74-2	Di-n-Butylphthalate	320	< 320 U
206-44-0	**Fluoranthene**	**320**	**6,400**
129-00-0	**Pyrene**	**320**	**4,000**
85-68-7	Butylbenzylphthalate	320	< 320 U
91-94-1	3,3'-Dichlorobenzidine	1,600	< 1,600 U
56-55-3	**Benzo(a)anthracene**	**320**	**1,500**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**320**	**600 B**
218-01-9	**Chrysene**	**320**	**2,100**
117-84-0	Di-n-Octyl phthalate	320	< 320 U
205-99-2	**Benzo(b)fluoranthene**	**320**	**1,100**
207-08-9	**Benzo(k)fluoranthene**	**320**	**1,100**
50-32-8	**Benzo(a)pyrene**	**320**	**1,100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**320**	**290 J**
53-70-3	**Dibenz(a,h)anthracene**	**320**	**120 J**
191-24-2	**Benzo(g,h,i)perylene**	**320**	**320**
62-53-3	Aniline	320	< 320 U
90-12-0	**1-Methylnaphthalene**	**320**	**470**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	102%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	72.8%	d4-1,2-Dichlorobenzene	61.6%
d5-Phenol	65.1%	2-Fluorophenol	57.9%
2,4,6-Tribromophenol	78.7%	d4-2-Chlorophenol	62.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC33-0-2
SAMPLE

Lab Sample ID: QM80A
LIMS ID: 10-5591
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 13:50
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 43.7%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**25**	**100**
111-44-4	Bis-(2-Chloroethyl) Ether	25	< 25 U
95-57-8	2-Chlorophenol	25	< 25 U
541-73-1	1,3-Dichlorobenzene	25	< 25 U
106-46-7	**1,4-Dichlorobenzene**	**25**	**14 J**
100-51-6	Benzyl Alcohol	25	< 25 U
95-50-1	1,2-Dichlorobenzene	25	< 25 U
95-48-7	2-Methylphenol	25	< 25 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	25	< 25 U
106-44-5	**4-Methylphenol**	**25**	**44**
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 U
67-72-1	Hexachloroethane	25	< 25 U
98-95-3	Nitrobenzene	25	< 25 U
78-59-1	Isophorone	25	< 25 U
88-75-5	2-Nitrophenol	130	< 130 U
105-67-9	2,4-Dimethylphenol	25	< 25 U
65-85-0	Benzoic Acid	250	< 250 U
111-91-1	bis(2-Chloroethoxy) Methane	25	< 25 U
120-83-2	2,4-Dichlorophenol	130	< 130 U
120-82-1	1,2,4-Trichlorobenzene	25	< 25 U
91-20-3	**Naphthalene**	**25**	**45**
106-47-8	4-Chloroaniline	130	< 130 U
87-68-3	Hexachlorobutadiene	25	< 25 U
59-50-7	4-Chloro-3-methylphenol	130	< 130 U
91-57-6	**2-Methylnaphthalene**	**25**	**30**
77-47-4	Hexachlorocyclopentadiene	130	< 130 U
88-06-2	2,4,6-Trichlorophenol	130	< 130 U
95-95-4	2,4,5-Trichlorophenol	130	< 130 U
91-58-7	2-Chloronaphthalene	25	< 25 U
88-74-4	2-Nitroaniline	130	< 130 U
131-11-3	Dimethylphthalate	25	< 25 U
208-96-8	**Acenaphthylene**	**25**	**36**
99-09-2	3-Nitroaniline	130	< 130 U
83-32-9	**Acenaphthene**	**25**	**70**
51-28-5	2,4-Dinitrophenol	250	< 250 U
100-02-7	4-Nitrophenol	130	< 130 U
132-64-9	**Dibenzofuran**	**25**	**30**
606-20-2	2,6-Dinitrotoluene	130	< 130 U
121-14-2	2,4-Dinitrotoluene	130	< 130 U
84-66-2	Diethylphthalate	25	< 25 U
7005-72-3	4-Chlorophenyl-phenylether	25	< 25 U
86-73-7	**Fluorene**	**25**	**50**
100-01-6	4-Nitroaniline	130	< 130 U
534-52-1	4,6-Dinitro-2-Methylphenol	250	< 250 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC33-0-2
SAMPLE

Lab Sample ID: QM80A
LIMS ID: 10-5591
Matrix: Sediment
Date Analyzed: 03/15/10 13:50

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	25	< 25 U
101-55-3	4-Bromophenyl-phenylether	25	< 25 U
118-74-1	Hexachlorobenzene	25	< 25 U
87-86-5	Pentachlorophenol	130	< 130 U
85-01-8	**Phenanthrene**	**25**	**310**
86-74-8	Carbazole	25	< 25 U
120-12-7	**Anthracene**	**25**	**210**
84-74-2	Di-n-Butylphthalate	25	< 25 U
206-44-0	**Fluoranthene**	**25**	**820**
129-00-0	**Pyrene**	**25**	**1,000**
85-68-7	Butylbenzylphthalate	25	< 25 U
91-94-1	3,3'-Dichlorobenzidine	130	< 130 U
56-55-3	**Benzo(a)anthracene**	**25**	**280**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**25**	**1,000**
218-01-9	**Chrysene**	**25**	**380**
117-84-0	Di-n-Octyl phthalate	25	< 25 U
205-99-2	**Benzo(b)fluoranthene**	**25**	**360**
207-08-9	**Benzo(k)fluoranthene**	**25**	**360**
50-32-8	**Benzo(a)pyrene**	**25**	**400**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**25**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**25**	**85**
191-24-2	**Benzo(g,h,i)perylene**	**25**	**160**
62-53-3	Aniline	25	< 25 U
90-12-0	**1-Methylnaphthalene**	**25**	**25**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.2%	2-Fluorobiphenyl	71.6%
d14-p-Terphenyl	79.6%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	79.5%	2-Fluorophenol	67.5%
2,4,6-Tribromophenol	100%	d4-2-Chlorophenol	64.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC33-2-3.5
SAMPLE

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 14:22
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 18.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 45.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	27	< 27 U
111-44-4	Bis-(2-Chloroethyl) Ether	27	< 27 U
95-57-8	2-Chlorophenol	27	< 27 U
541-73-1	1,3-Dichlorobenzene	27	< 27 U
106-46-7	1,4-Dichlorobenzene	27	< 27 U
100-51-6	Benzyl Alcohol	27	< 27 U
95-50-1	1,2-Dichlorobenzene	27	< 27 U
95-48-7	2-Methylphenol	27	< 27 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	27	< 27 U
106-44-5	**4-Methylphenol**	**27**	**72**
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	27	< 27 U
98-95-3	Nitrobenzene	27	< 27 U
78-59-1	Isophorone	27	< 27 U
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	27	< 27 U
65-85-0	Benzoic Acid	270	< 270 U
111-91-1	bis(2-Chloroethoxy) Methane	27	< 27 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	27	< 27 U
91-20-3	**Naphthalene**	**27**	**170**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	27	< 27 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**27**	**110**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	27	< 27 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	Dimethylphthalate	27	< 27 U
208-96-8	Acenaphthylene	27	< 27 U
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**27**	**410**
51-28-5	2,4-Dinitrophenol	270	< 270 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	**Dibenzofuran**	**27**	**240**
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	27	< 27 U
7005-72-3	4-Chlorophenyl-phenylether	27	< 27 U
86-73-7	**Fluorene**	**27**	**450**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	270	< 270 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC33-2-3.5
SAMPLE

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Date Analyzed: 03/15/10 14:22

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	27	< 27 U
101-55-3	4-Bromophenyl-phenylether	27	< 27 U
118-74-1	Hexachlorobenzene	27	< 27 U
87-86-5	Pentachlorophenol	140	< 140 U
85-01-8	**Phenanthrene**	**27**	**520**
86-74-8	Carbazole	27	< 27 U
120-12-7	**Anthracene**	**27**	**920**
84-74-2	Di-n-Butylphthalate	27	< 27 U
206-44-0	**Fluoranthene**	**27**	**3,000 ES**
129-00-0	**Pyrene**	**27**	**2,800 ES**
85-68-7	Butylbenzylphthalate	27	< 27 U
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**27**	**900**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**27**	**1,300**
218-01-9	**Chrysene**	**27**	**860**
117-84-0	Di-n-Octyl phthalate	27	< 27 U
205-99-2	**Benzo(b)fluoranthene**	**27**	**470**
207-08-9	**Benzo(k)fluoranthene**	**27**	**470**
50-32-8	**Benzo(a)pyrene**	**27**	**470**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**27**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**27**	**71**
191-24-2	**Benzo(g,h,i)perylene**	**27**	**130**
62-53-3	Aniline	27	< 27 U
90-12-0	**1-Methylnaphthalene**	**27**	**120**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.4%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	49.6%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	81.9%	2-Fluorophenol	69.1%
2,4,6-Tribromophenol	106%	d4-2-Chlorophenol	68.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC33-2-3.5
DILUTION

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 22:51
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 18.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 45.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	270	< 270 U
111-44-4	Bis-(2-Chloroethyl) Ether	270	< 270 U
95-57-8	2-Chlorophenol	270	< 270 U
541-73-1	1,3-Dichlorobenzene	270	< 270 U
106-46-7	1,4-Dichlorobenzene	270	< 270 U
100-51-6	Benzyl Alcohol	270	< 270 U
95-50-1	1,2-Dichlorobenzene	270	< 270 U
95-48-7	2-Methylphenol	270	< 270 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	270	< 270 U
106-44-5	4-Methylphenol	270	< 270 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,400	< 1,400 U
67-72-1	Hexachloroethane	270	< 270 U
98-95-3	Nitrobenzene	270	< 270 U
78-59-1	Isophorone	270	< 270 U
88-75-5	2-Nitrophenol	1,400	< 1,400 U
105-67-9	2,4-Dimethylphenol	270	< 270 U
65-85-0	Benzoic Acid	2,700	< 2,700 U
111-91-1	bis(2-Chloroethoxy) Methane	270	< 270 U
120-83-2	2,4-Dichlorophenol	1,400	< 1,400 U
120-82-1	1,2,4-Trichlorobenzene	270	< 270 U
91-20-3	**Naphthalene**	**270**	**190 J**
106-47-8	4-Chloroaniline	1,400	< 1,400 U
87-68-3	Hexachlorobutadiene	270	< 270 U
59-50-7	4-Chloro-3-methylphenol	1,400	< 1,400 U
91-57-6	2-Methylnaphthalene	270	< 270 U
77-47-4	Hexachlorocyclopentadiene	1,400	< 1,400 U
88-06-2	2,4,6-Trichlorophenol	1,400	< 1,400 U
95-95-4	2,4,5-Trichlorophenol	1,400	< 1,400 U
91-58-7	2-Chloronaphthalene	270	< 270 U
88-74-4	2-Nitroaniline	1,400	< 1,400 U
131-11-3	Dimethylphthalate	270	< 270 U
208-96-8	Acenaphthylene	270	< 270 U
99-09-2	3-Nitroaniline	1,400	< 1,400 U
83-32-9	**Acenaphthene**	**270**	**440**
51-28-5	2,4-Dinitrophenol	2,700	< 2,700 U
100-02-7	4-Nitrophenol	1,400	< 1,400 U
132-64-9	**Dibenzofuran**	**270**	**230 J**
606-20-2	2,6-Dinitrotoluene	1,400	< 1,400 U
121-14-2	2,4-Dinitrotoluene	1,400	< 1,400 U
84-66-2	Diethylphthalate	270	< 270 U
7005-72-3	4-Chlorophenyl-phenylether	270	< 270 U
86-73-7	**Fluorene**	**270**	**490**
100-01-6	4-Nitroaniline	1,400	< 1,400 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,700	< 2,700 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC33-2-3.5
DILUTION

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Date Analyzed: 03/15/10 22:51

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	270	< 270 U
101-55-3	4-Bromophenyl-phenylether	270	< 270 U
118-74-1	Hexachlorobenzene	270	< 270 U
87-86-5	Pentachlorophenol	1,400	< 1,400 U
85-01-8	**Phenanthrene**	**270**	**860**
86-74-8	Carbazole	270	< 270 U
120-12-7	**Anthracene**	**270**	**770**
84-74-2	Di-n-Butylphthalate	270	< 270 U
206-44-0	**Fluoranthene**	**270**	**4,700**
129-00-0	**Pyrene**	**270**	**3,000**
85-68-7	Butylbenzylphthalate	270	< 270 U
91-94-1	3,3'-Dichlorobenzidine	1,400	< 1,400 U
56-55-3	**Benzo(a)anthracene**	**270**	**930**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**270**	**1,100**
218-01-9	**Chrysene**	**270**	**1,100**
117-84-0	Di-n-Octyl phthalate	270	< 270 U
205-99-2	**Benzo(b)fluoranthene**	**270**	**560**
207-08-9	**Benzo(k)fluoranthene**	**270**	**560**
50-32-8	**Benzo(a)pyrene**	**270**	**480**
193-39-5	Indeno(1,2,3-cd)pyrene	270	< 270 U
53-70-3	Dibenz(a,h)anthracene	270	< 270 U
191-24-2	Benzo(g,h,i)perylene	270	< 270 U
62-53-3	Aniline	270	< 270 U
90-12-0	1-Methylnaphthalene	270	< 270 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	79.6%	2-Fluorobiphenyl	78.0%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	66.8%
d5-Phenol	75.5%	2-Fluorophenol	65.3%
2,4,6-Tribromophenol	81.3%	d4-2-Chlorophenol	66.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC35-0-2
SAMPLE

Lab Sample ID: QL56M
LIMS ID: 10-4789
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/24/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 03:12
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 22.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 36.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	22	< 22 U
111-44-4	Bis-(2-Chloroethyl) Ether	22	< 22 U
95-57-8	2-Chlorophenol	22	< 22 U
541-73-1	1,3-Dichlorobenzene	22	< 22 U
106-46-7	1,4-Dichlorobenzene	22	< 22 U
100-51-6	Benzyl Alcohol	22	< 22 U
95-50-1	1,2-Dichlorobenzene	22	< 22 U
95-48-7	**2-Methylphenol**	**22**	**14 J**
108-60-1	2,2'-Oxybis(1-Chloropropane)	22	< 22 U
106-44-5	**4-Methylphenol**	**22**	**14 J**
621-64-7	N-Nitroso-Di-N-Propylamine	110	< 110 U
67-72-1	Hexachloroethane	22	< 22 U
98-95-3	Nitrobenzene	22	< 22 U
78-59-1	Isophorone	22	< 22 U
88-75-5	2-Nitrophenol	110	< 110 U
105-67-9	2,4-Dimethylphenol	22	< 22 U
65-85-0	Benzoic Acid	220	< 220 U
111-91-1	bis(2-Chloroethoxy) Methane	22	< 22 U
120-83-2	2,4-Dichlorophenol	110	< 110 U
120-82-1	1,2,4-Trichlorobenzene	22	< 22 U
91-20-3	**Naphthalene**	**22**	**32**
106-47-8	4-Chloroaniline	110	< 110 U
87-68-3	Hexachlorobutadiene	22	< 22 U
59-50-7	4-Chloro-3-methylphenol	110	< 110 U
91-57-6	**2-Methylnaphthalene**	**22**	**16 J**
77-47-4	Hexachlorocyclopentadiene	110	< 110 U
88-06-2	2,4,6-Trichlorophenol	110	< 110 U
95-95-4	2,4,5-Trichlorophenol	110	< 110 U
91-58-7	2-Chloronaphthalene	22	< 22 U
88-74-4	2-Nitroaniline	110	< 110 U
131-11-3	Dimethylphthalate	22	< 22 U
208-96-8	**Acenaphthylene**	**22**	**15 J**
99-09-2	3-Nitroaniline	110	< 110 U
83-32-9	**Acenaphthene**	**22**	**13 J**
51-28-5	2,4-Dinitrophenol	220	< 220 U
100-02-7	4-Nitrophenol	110	< 110 U
132-64-9	**Dibenzofuran**	**22**	**14 J**
606-20-2	2,6-Dinitrotoluene	110	< 110 U
121-14-2	2,4-Dinitrotoluene	110	< 110 U
84-66-2	Diethylphthalate	22	< 22 U
7005-72-3	4-Chlorophenyl-phenylether	22	< 22 U
86-73-7	**Fluorene**	**22**	**19 J**
100-01-6	4-Nitroaniline	110	< 110 U
534-52-1	4,6-Dinitro-2-Methylphenol	220	< 220 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC35-0-2
SAMPLE

Lab Sample ID: QL56M
LIMS ID: 10-4789
Matrix: Sediment
Date Analyzed: 03/09/10 03:12

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	22	< 22 U
101-55-3	4-Bromophenyl-phenylether	22	< 22 U
118-74-1	Hexachlorobenzene	22	< 22 U
87-86-5	Pentachlorophenol	110	< 110 U
85-01-8	**Phenanthrene**	**22**	**84**
86-74-8	**Carbazole**	**22**	**15 J**
120-12-7	**Anthracene**	**22**	**44**
84-74-2	Di-n-Butylphthalate	22	< 22 U
206-44-0	**Fluoranthene**	**22**	**160**
129-00-0	**Pyrene**	**22**	**410**
85-68-7	Butylbenzylphthalate	22	< 22 U
91-94-1	3,3'-Dichlorobenzidine	110	< 110 U
56-55-3	**Benzo(a)anthracene**	**22**	**78**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**22**	**1,700 B**
218-01-9	**Chrysene**	**22**	**120**
117-84-0	Di-n-Octyl phthalate	22	< 22 U
205-99-2	**Benzo(b)fluoranthene**	**22**	**150**
207-08-9	**Benzo(k)fluoranthene**	**22**	**150**
50-32-8	**Benzo(a)pyrene**	**22**	**150**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**22**	**46**
53-70-3	**Dibenz(a,h)anthracene**	**22**	**28**
191-24-2	**Benzo(g,h,i)perylene**	**22**	**44**
62-53-3	Aniline	22	< 22 U
90-12-0	1-Methylnaphthalene	22	< 22 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.8%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	74.1%	2-Fluorophenol	59.7%
2,4,6-Tribromophenol	92.5%	d4-2-Chlorophenol	60.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC35-2-4
SAMPLE

Lab Sample ID: QL56N
LIMS ID: 10-4790
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/24/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 03:44
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 24.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 23.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	21	< 21 U
111-44-4	Bis-(2-Chloroethyl) Ether	21	< 21 U
95-57-8	2-Chlorophenol	21	< 21 U
541-73-1	1,3-Dichlorobenzene	21	< 21 U
106-46-7	1,4-Dichlorobenzene	21	< 21 U
100-51-6	Benzyl Alcohol	21	< 21 U
95-50-1	1,2-Dichlorobenzene	21	< 21 U
95-48-7	2-Methylphenol	21	< 21 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	21	< 21 U
106-44-5	4-Methylphenol	21	< 21 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	21	< 21 U
98-95-3	Nitrobenzene	21	< 21 U
78-59-1	Isophorone	21	< 21 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	21	< 21 U
65-85-0	Benzoic Acid	210	< 210 U
111-91-1	bis(2-Chloroethoxy) Methane	21	< 21 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	21	< 21 U
91-20-3	Naphthalene	21	< 21 U
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	21	< 21 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	21	< 21 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	21	< 21 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	21	< 21 U
208-96-8	Acenaphthylene	21	< 21 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	21	< 21 U
51-28-5	2,4-Dinitrophenol	210	< 210 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	21	< 21 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	21	< 21 U
7005-72-3	4-Chlorophenyl-phenylether	21	< 21 U
86-73-7	Fluorene	21	< 21 U
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	210	< 210 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC35-2-4
SAMPLE

Lab Sample ID: QL56N
LIMS ID: 10-4790
Matrix: Sediment
Date Analyzed: 03/09/10 03:44

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	21	< 21 U
101-55-3	4-Bromophenyl-phenylether	21	< 21 U
118-74-1	Hexachlorobenzene	21	< 21 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	Phenanthrene	21	< 21 U
86-74-8	Carbazole	21	< 21 U
120-12-7	Anthracene	21	< 21 U
84-74-2	**Di-n-Butylphthalate**	**21**	**20 J**
206-44-0	**Fluoranthene**	**21**	**12 J**
129-00-0	**Pyrene**	**21**	**65**
85-68-7	Butylbenzylphthalate	21	< 21 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	Benzo(a)anthracene	21	< 21 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**21**	**270 B**
218-01-9	Chrysene	21	< 21 U
117-84-0	Di-n-Octyl phthalate	21	< 21 U
205-99-2	**Benzo(b)fluoranthene**	**21**	**14 J**
207-08-9	**Benzo(k)fluoranthene**	**21**	**14 J**
50-32-8	**Benzo(a)pyrene**	**21**	**12 J**
193-39-5	Indeno(1,2,3-cd)pyrene	21	< 21 U
53-70-3	Dibenz(a,h)anthracene	21	< 21 U
191-24-2	Benzo(g,h,i)perylene	21	< 21 U
62-53-3	Aniline	21	< 21 U
90-12-0	1-Methylnaphthalene	21	< 21 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.4%	2-Fluorobiphenyl	69.2%
d14-p-Terphenyl	74.0%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	72.8%	2-Fluorophenol	59.5%
2,4,6-Tribromophenol	87.5%	d4-2-Chlorophenol	60.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC37-0-2
SAMPLE

Lab Sample ID: QL86G
LIMS ID: 10-4954
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/09/10 23:48
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**17 J**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	**Diethylphthalate**	**20**	**11 J**
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC37-0-2
SAMPLE

Lab Sample ID: QL86G
LIMS ID: 10-4954
Matrix: Sediment
Date Analyzed: 03/09/10 23:48

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**41**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**23**
84-74-2	**Di-n-Butylphthalate**	**20**	**36**
206-44-0	**Fluoranthene**	**20**	**80**
129-00-0	**Pyrene**	**20**	**210**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**43**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**250**
218-01-9	**Chrysene**	**20**	**54**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**75**
207-08-9	**Benzo(k)fluoranthene**	**20**	**75**
50-32-8	**Benzo(a)pyrene**	**20**	**74**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**20**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**21**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	51.6%	2-Fluorobiphenyl	61.2%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	53.2%
d5-Phenol	63.5%	2-Fluorophenol	59.2%
2,4,6-Tribromophenol	62.9%	d4-2-Chlorophenol	56.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC37-2-3.9
SAMPLE

Lab Sample ID: QL86H
LIMS ID: 10-4955
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 00:21
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC37-2-3.9
SAMPLE

Lab Sample ID: QL86H
LIMS ID: 10-4955
Matrix: Sediment
Date Analyzed: 03/10/10 00:21

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	**Di-n-Butylphthalate**	**19**	**16 J**
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**20**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	54.8%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	77.2%	d4-1,2-Dichlorobenzene	54.4%
d5-Phenol	67.5%	2-Fluorophenol	62.9%
2,4,6-Tribromophenol	67.5%	d4-2-Chlorophenol	59.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC38-0-0.8
SAMPLE

Lab Sample ID: QL86I
LIMS ID: 10-4956
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 00:55
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	**Diethylphthalate**	**19**	**10 J**
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC38-0-0.8
SAMPLE

Lab Sample ID: QL86I
LIMS ID: 10-4956
Matrix: Sediment
Date Analyzed: 03/10/10 00:55

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	**Di-n-Butylphthalate**	**19**	**27**
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**22**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.4%	2-Fluorobiphenyl	59.6%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	53.2%
d5-Phenol	62.4%	2-Fluorophenol	61.1%
2,4,6-Tribromophenol	62.4%	d4-2-Chlorophenol	56.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC38-0.8-2
SAMPLE

Lab Sample ID: QL86J
LIMS ID: 10-4957
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 01:28
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 22.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC38-0.8-2
SAMPLE

Lab Sample ID: QL86J
LIMS ID: 10-4957
Matrix: Sediment
Date Analyzed: 03/10/10 01:28

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	**Pyrene**	**20**	**9.8 J**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**20**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.2%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	86.4%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	73.6%	2-Fluorophenol	71.5%
2,4,6-Tribromophenol	68.8%	d4-2-Chlorophenol	63.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC41-0-0.6
SAMPLE

Lab Sample ID: QL560
LIMS ID: 10-4791
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 04:15
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC41-0-0.6
SAMPLE

Lab Sample ID: QL560
LIMS ID: 10-4791
Matrix: Sediment
Date Analyzed: 03/09/10 04:15

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**200 B**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	55.2%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	70.4%	d4-1,2-Dichlorobenzene	52.8%
d5-Phenol	65.9%	2-Fluorophenol	53.9%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	55.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC41-0.6-2
SAMPLE

Lab Sample ID: QL56P
LIMS ID: 10-4792
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 04:47
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 26.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	95	< 95 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	95	< 95 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	95	< 95 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	95	< 95 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	95	< 95 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	95	< 95 U
88-06-2	2,4,6-Trichlorophenol	95	< 95 U
95-95-4	2,4,5-Trichlorophenol	95	< 95 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	95	< 95 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	95	< 95 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	95	< 95 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	95	< 95 U
121-14-2	2,4-Dinitrotoluene	95	< 95 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	95	< 95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC41-0.6-2
SAMPLE

Lab Sample ID: QL56P
LIMS ID: 10-4792
Matrix: Sediment
Date Analyzed: 03/09/10 04:47

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	95	< 95 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	95	< 95 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**200 B**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.6%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	72.8%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	69.6%	2-Fluorophenol	57.1%
2,4,6-Tribromophenol	82.9%	d4-2-Chlorophenol	57.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC43-0-1.3
SAMPLE

Lab Sample ID: QL86K
LIMS ID: 10-4958
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 02:01
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 22.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 34.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	23	< 23 U
111-44-4	Bis-(2-Chloroethyl) Ether	23	< 23 U
95-57-8	2-Chlorophenol	23	< 23 U
541-73-1	1,3-Dichlorobenzene	23	< 23 U
106-46-7	**1,4-Dichlorobenzene**	**23**	**19 J**
100-51-6	Benzyl Alcohol	23	< 23 U
95-50-1	1,2-Dichlorobenzene	23	< 23 U
95-48-7	2-Methylphenol	23	< 23 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	23	< 23 U
106-44-5	4-Methylphenol	23	< 23 U
621-64-7	N-Nitroso-Di-N-Propylamine	110	< 110 U
67-72-1	Hexachloroethane	23	< 23 U
98-95-3	Nitrobenzene	23	< 23 U
78-59-1	Isophorone	23	< 23 U
88-75-5	2-Nitrophenol	110	< 110 U
105-67-9	2,4-Dimethylphenol	23	< 23 U
65-85-0	Benzoic Acid	230	< 230 U
111-91-1	bis(2-Chloroethoxy) Methane	23	< 23 U
120-83-2	2,4-Dichlorophenol	110	< 110 U
120-82-1	1,2,4-Trichlorobenzene	23	< 23 U
91-20-3	**Naphthalene**	**23**	**42**
106-47-8	4-Chloroaniline	110	< 110 U
87-68-3	Hexachlorobutadiene	23	< 23 U
59-50-7	4-Chloro-3-methylphenol	110	< 110 U
91-57-6	**2-Methylnaphthalene**	**23**	**16 J**
77-47-4	Hexachlorocyclopentadiene	110	< 110 U
88-06-2	2,4,6-Trichlorophenol	110	< 110 U
95-95-4	2,4,5-Trichlorophenol	110	< 110 U
91-58-7	2-Chloronaphthalene	23	< 23 U
88-74-4	2-Nitroaniline	110	< 110 U
131-11-3	Dimethylphthalate	23	< 23 U
208-96-8	**Acenaphthylene**	**23**	**20 J**
99-09-2	3-Nitroaniline	110	< 110 U
83-32-9	**Acenaphthene**	**23**	**20 J**
51-28-5	2,4-Dinitrophenol	230	< 230 U
100-02-7	4-Nitrophenol	110	< 110 U
132-64-9	**Dibenzofuran**	**23**	**16 J**
606-20-2	2,6-Dinitrotoluene	110	< 110 U
121-14-2	2,4-Dinitrotoluene	110	< 110 U
84-66-2	Diethylphthalate	23	< 23 U
7005-72-3	4-Chlorophenyl-phenylether	23	< 23 U
86-73-7	**Fluorene**	**23**	**23**
100-01-6	4-Nitroaniline	110	< 110 U
534-52-1	4,6-Dinitro-2-Methylphenol	230	< 230 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC43-0-1.3
SAMPLE

Lab Sample ID: QL86K
LIMS ID: 10-4958
Matrix: Sediment
Date Analyzed: 03/10/10 02:01

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	23	< 23 U
101-55-3	4-Bromophenyl-phenylether	23	< 23 U
118-74-1	Hexachlorobenzene	23	< 23 U
87-86-5	Pentachlorophenol	110	< 110 U
85-01-8	**Phenanthrene**	**23**	**120**
86-74-8	**Carbazole**	**23**	**18 J**
120-12-7	**Anthracene**	**23**	**65**
84-74-2	Di-n-Butylphthalate	23	< 23 U
206-44-0	**Fluoranthene**	**23**	**240**
129-00-0	**Pyrene**	**23**	**1,100**
85-68-7	Butylbenzylphthalate	23	< 23 U
91-94-1	3,3'-Dichlorobenzidine	110	< 110 U
56-55-3	**Benzo(a)anthracene**	**23**	**130**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**300**
218-01-9	**Chrysene**	**23**	**190**
117-84-0	Di-n-Octyl phthalate	23	< 23 U
205-99-2	**Benzo(b)fluoranthene**	**23**	**320**
207-08-9	**Benzo(k)fluoranthene**	**23**	**320**
50-32-8	**Benzo(a)pyrene**	**23**	**290**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**23**	**64**
53-70-3	**Dibenz(a,h)anthracene**	**23**	**30**
191-24-2	**Benzo(g,h,i)perylene**	**23**	**63**
62-53-3	Aniline	23	< 23 U
90-12-0	**1-Methylnaphthalene**	**23**	**13 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	53.6%	2-Fluorobiphenyl	66.4%
d14-p-Terphenyl	77.6%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	67.2%	2-Fluorophenol	62.9%
2,4,6-Tribromophenol	64.5%	d4-2-Chlorophenol	60.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC43-1.3-4
SAMPLE

Lab Sample ID: QL86L
LIMS ID: 10-4959
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 02:34
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 20.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	25	< 25 U
111-44-4	Bis-(2-Chloroethyl) Ether	25	< 25 U
95-57-8	2-Chlorophenol	25	< 25 U
541-73-1	1,3-Dichlorobenzene	25	< 25 U
106-46-7	1,4-Dichlorobenzene	25	< 25 U
100-51-6	Benzyl Alcohol	25	< 25 U
95-50-1	1,2-Dichlorobenzene	25	< 25 U
95-48-7	2-Methylphenol	25	< 25 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	25	< 25 U
106-44-5	4-Methylphenol	25	< 25 U
621-64-7	N-Nitroso-Di-N-Propylamine	120	< 120 U
67-72-1	Hexachloroethane	25	< 25 U
98-95-3	Nitrobenzene	25	< 25 U
78-59-1	Isophorone	25	< 25 U
88-75-5	2-Nitrophenol	120	< 120 U
105-67-9	2,4-Dimethylphenol	25	< 25 U
65-85-0	Benzoic Acid	250	< 250 U
111-91-1	bis(2-Chloroethoxy) Methane	25	< 25 U
120-83-2	2,4-Dichlorophenol	120	< 120 U
120-82-1	1,2,4-Trichlorobenzene	25	< 25 U
91-20-3	**Naphthalene**	**25**	**130**
106-47-8	4-Chloroaniline	120	< 120 U
87-68-3	Hexachlorobutadiene	25	< 25 U
59-50-7	4-Chloro-3-methylphenol	120	< 120 U
91-57-6	**2-Methylnaphthalene**	**25**	**34**
77-47-4	Hexachlorocyclopentadiene	120	< 120 U
88-06-2	2,4,6-Trichlorophenol	120	< 120 U
95-95-4	2,4,5-Trichlorophenol	120	< 120 U
91-58-7	2-Chloronaphthalene	25	< 25 U
88-74-4	2-Nitroaniline	120	< 120 U
131-11-3	Dimethylphthalate	25	< 25 U
208-96-8	Acenaphthylene	25	< 25 U
99-09-2	3-Nitroaniline	120	< 120 U
83-32-9	**Acenaphthene**	**25**	**75**
51-28-5	2,4-Dinitrophenol	250	< 250 U
100-02-7	4-Nitrophenol	120	< 120 U
132-64-9	**Dibenzofuran**	**25**	**39**
606-20-2	2,6-Dinitrotoluene	120	< 120 U
121-14-2	2,4-Dinitrotoluene	120	< 120 U
84-66-2	Diethylphthalate	25	< 25 U
7005-72-3	4-Chlorophenyl-phenylether	25	< 25 U
86-73-7	**Fluorene**	**25**	**58**
100-01-6	4-Nitroaniline	120	< 120 U
534-52-1	4,6-Dinitro-2-Methylphenol	250	< 250 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC43-1.3-4
SAMPLE

Lab Sample ID: QL86L
LIMS ID: 10-4959
Matrix: Sediment
Date Analyzed: 03/10/10 02:34

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	25	< 25 U
101-55-3	4-Bromophenyl-phenylether	25	< 25 U
118-74-1	Hexachlorobenzene	25	< 25 U
87-86-5	Pentachlorophenol	120	< 120 U
85-01-8	**Phenanthrene**	**25**	**250**
86-74-8	**Carbazole**	**25**	**37**
120-12-7	**Anthracene**	**25**	**100**
84-74-2	**Di-n-Butylphthalate**	**25**	**38**
206-44-0	**Fluoranthene**	**25**	**330**
129-00-0	**Pyrene**	**25**	**780**
85-68-7	Butylbenzylphthalate	25	< 25 U
91-94-1	3,3'-Dichlorobenzidine	120	< 120 U
56-55-3	**Benzo(a)anthracene**	**25**	**210**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**25**	**270**
218-01-9	**Chrysene**	**25**	**260**
117-84-0	Di-n-Octyl phthalate	25	< 25 U
205-99-2	**Benzo(b)fluoranthene**	**25**	**240**
207-08-9	**Benzo(k)fluoranthene**	**25**	**240**
50-32-8	**Benzo(a)pyrene**	**25**	**260**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**25**	**61**
53-70-3	Dibenz(a,h)anthracene	25	< 25 U
191-24-2	**Benzo(g,h,i)perylene**	**25**	**60**
62-53-3	Aniline	25	< 25 U
90-12-0	**1-Methylnaphthalene**	**25**	**24 J**

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	53.2%	2-Fluorobiphenyl	64.8%
d14-p-Terphenyl	75.2%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	66.7%	2-Fluorophenol	62.9%
2,4,6-Tribromophenol	66.1%	d4-2-Chlorophenol	60.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC45-0-1
SAMPLE

Lab Sample ID: QL56Q
LIMS ID: 10-4793
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 05:19
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 21.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC45-0-1
SAMPLE

Lab Sample ID: QL56Q
LIMS ID: 10-4793
Matrix: Sediment
Date Analyzed: 03/09/10 05:19

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**210 B**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.0%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	70.4%	2-Fluorophenol	58.1%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	58.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC45-1-1.7
SAMPLE

Lab Sample ID: QL56R
LIMS ID: 10-4794
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 05:50
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC45-1-1.7
SAMPLE

Lab Sample ID: QL56R
LIMS ID: 10-4794
Matrix: Sediment
Date Analyzed: 03/09/10 05:50

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	**Di-n-Butylphthalate**	**20**	**46**
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**240 B**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**10 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**10 J**
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**11 J**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**11 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**12 J**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.4%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	51.2%
d5-Phenol	68.0%	2-Fluorophenol	56.0%
2,4,6-Tribromophenol	84.8%	d4-2-Chlorophenol	56.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC46-2.3-4
SAMPLE

Lab Sample ID: QL86N
LIMS ID: 10-4961
Matrix: Sediment
Date Analyzed: 03/10/10 18:41

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**21**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.4%	2-Fluorobiphenyl	82.4%
d14-p-Terphenyl	80.4%	d4-1,2-Dichlorobenzene	53.2%
d5-Phenol	67.5%	2-Fluorophenol	74.9%
2,4,6-Tribromophenol	62.7%	d4-2-Chlorophenol	56.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC48-0-2
SAMPLE

Lab Sample ID: QM80E
LIMS ID: 10-5595
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 15:59
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 21.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 41.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	24	< 24 U
111-44-4	Bis-(2-Chloroethyl) Ether	24	< 24 U
95-57-8	2-Chlorophenol	24	< 24 U
541-73-1	1,3-Dichlorobenzene	24	< 24 U
106-46-7	**1,4-Dichlorobenzene**	**24**	**19 J**
100-51-6	Benzyl Alcohol	24	< 24 U
95-50-1	1,2-Dichlorobenzene	24	< 24 U
95-48-7	2-Methylphenol	24	< 24 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	24	< 24 U
106-44-5	**4-Methylphenol**	**24**	**20 J**
621-64-7	N-Nitroso-Di-N-Propylamine	120	< 120 U
67-72-1	Hexachloroethane	24	< 24 U
98-95-3	Nitrobenzene	24	< 24 U
78-59-1	Isophorone	24	< 24 U
88-75-5	2-Nitrophenol	120	< 120 U
105-67-9	2,4-Dimethylphenol	24	< 24 U
65-85-0	**Benzoic Acid**	**240**	**65 J**
111-91-1	bis(2-Chloroethoxy) Methane	24	< 24 U
120-83-2	2,4-Dichlorophenol	120	< 120 U
120-82-1	1,2,4-Trichlorobenzene	24	< 24 U
91-20-3	**Naphthalene**	**24**	**70**
106-47-8	4-Chloroaniline	120	< 120 U
87-68-3	Hexachlorobutadiene	24	< 24 U
59-50-7	4-Chloro-3-methylphenol	120	< 120 U
91-57-6	**2-Methylnaphthalene**	**24**	**27**
77-47-4	Hexachlorocyclopentadiene	120	< 120 U
88-06-2	2,4,6-Trichlorophenol	120	< 120 U
95-95-4	2,4,5-Trichlorophenol	120	< 120 U
91-58-7	2-Chloronaphthalene	24	< 24 U
88-74-4	2-Nitroaniline	120	< 120 U
131-11-3	Dimethylphthalate	24	< 24 U
208-96-8	**Acenaphthylene**	**24**	**61**
99-09-2	3-Nitroaniline	120	< 120 U
83-32-9	**Acenaphthene**	**24**	**42**
51-28-5	2,4-Dinitrophenol	240	< 240 U
100-02-7	4-Nitrophenol	120	< 120 U
132-64-9	**Dibenzofuran**	**24**	**33**
606-20-2	2,6-Dinitrotoluene	120	< 120 U
121-14-2	2,4-Dinitrotoluene	120	< 120 U
84-66-2	Diethylphthalate	24	< 24 U
7005-72-3	4-Chlorophenyl-phenylether	24	< 24 U
86-73-7	**Fluorene**	**24**	**58**
100-01-6	4-Nitroaniline	120	< 120 U
534-52-1	4,6-Dinitro-2-Methylphenol	240	< 240 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC48-0-2
SAMPLE

Lab Sample ID: QM80E
LIMS ID: 10-5595
Matrix: Sediment
Date Analyzed: 03/15/10 15:59

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	24	< 24 U
101-55-3	4-Bromophenyl-phenylether	24	< 24 U
118-74-1	Hexachlorobenzene	24	< 24 U
87-86-5	Pentachlorophenol	120	< 120 U
85-01-8	**Phenanthrene**	**24**	**230**
86-74-8	**Carbazole**	**24**	**53**
120-12-7	**Anthracene**	**24**	**200**
84-74-2	Di-n-Butylphthalate	24	< 24 U
206-44-0	**Fluoranthene**	**24**	**560**
129-00-0	**Pyrene**	**24**	**1,200**
85-68-7	Butylbenzylphthalate	24	< 24 U
91-94-1	3,3'-Dichlorobenzidine	120	< 120 U
56-55-3	**Benzo(a)anthracene**	**24**	**300**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**860**
218-01-9	**Chrysene**	**24**	**510**
117-84-0	Di-n-Octyl phthalate	24	< 24 U
205-99-2	**Benzo(b)fluoranthene**	**24**	**570**
207-08-9	**Benzo(k)fluoranthene**	**24**	**570**
50-32-8	**Benzo(a)pyrene**	**24**	**590**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**24**	**160**
53-70-3	**Dibenz(a,h)anthracene**	**24**	**100**
191-24-2	**Benzo(g,h,i)perylene**	**24**	**150**
62-53-3	Aniline	24	< 24 U
90-12-0	**1-Methylnaphthalene**	**24**	**19 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.0%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	85.6%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	84.3%	2-Fluorophenol	69.3%
2,4,6-Tribromophenol	108%	d4-2-Chlorophenol	68.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC48-2-4.7
SAMPLE

Lab Sample ID: QM80F
LIMS ID: 10-5596
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 16:32
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 44.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	26	< 26 U
111-44-4	Bis-(2-Chloroethyl) Ether	26	< 26 U
95-57-8	2-Chlorophenol	26	< 26 U
541-73-1	1,3-Dichlorobenzene	26	< 26 U
106-46-7	1,4-Dichlorobenzene	26	< 26 U
100-51-6	Benzyl Alcohol	26	< 26 U
95-50-1	1,2-Dichlorobenzene	26	< 26 U
95-48-7	2-Methylphenol	26	< 26 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	26	< 26 U
106-44-5	**4-Methylphenol**	**26**	**53**
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 U
67-72-1	Hexachloroethane	26	< 26 U
98-95-3	Nitrobenzene	26	< 26 U
78-59-1	Isophorone	26	< 26 U
88-75-5	2-Nitrophenol	130	< 130 U
105-67-9	2,4-Dimethylphenol	26	< 26 U
65-85-0	Benzoic Acid	260	< 260 U
111-91-1	bis(2-Chloroethoxy) Methane	26	< 26 U
120-83-2	2,4-Dichlorophenol	130	< 130 U
120-82-1	1,2,4-Trichlorobenzene	26	< 26 U
91-20-3	**Naphthalene**	**26**	**260**
106-47-8	4-Chloroaniline	130	< 130 U
87-68-3	Hexachlorobutadiene	26	< 26 U
59-50-7	4-Chloro-3-methylphenol	130	< 130 U
91-57-6	**2-Methylnaphthalene**	**26**	**75**
77-47-4	Hexachlorocyclopentadiene	130	< 130 U
88-06-2	2,4,6-Trichlorophenol	130	< 130 U
95-95-4	2,4,5-Trichlorophenol	130	< 130 U
91-58-7	2-Chloronaphthalene	26	< 26 U
88-74-4	2-Nitroaniline	130	< 130 U
131-11-3	Dimethylphthalate	26	< 26 U
208-96-8	Acenaphthylene	26	< 26 U
99-09-2	3-Nitroaniline	130	< 130 U
83-32-9	**Acenaphthene**	**26**	**350**
51-28-5	2,4-Dinitrophenol	260	< 260 U
100-02-7	4-Nitrophenol	130	< 130 U
132-64-9	**Dibenzofuran**	**26**	**260**
606-20-2	2,6-Dinitrotoluene	130	< 130 U
121-14-2	2,4-Dinitrotoluene	130	< 130 U
84-66-2	Diethylphthalate	26	< 26 U
7005-72-3	4-Chlorophenyl-phenylether	26	< 26 U
86-73-7	**Fluorene**	**26**	**370**
100-01-6	4-Nitroaniline	130	< 130 U
534-52-1	4,6-Dinitro-2-Methylphenol	260	< 260 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC48-2-4.7
SAMPLE

Lab Sample ID: QM80F
LIMS ID: 10-5596
Matrix: Sediment
Date Analyzed: 03/15/10 16:32

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	26	< 26 U
101-55-3	4-Bromophenyl-phenylether	26	< 26 U
118-74-1	Hexachlorobenzene	26	< 26 U
87-86-5	Pentachlorophenol	130	< 130 U
85-01-8	**Phenanthrene**	**26**	**570**
86-74-8	Carbazole	26	< 26 U
120-12-7	**Anthracene**	**26**	**370**
84-74-2	Di-n-Butylphthalate	26	< 26 U
206-44-0	**Fluoranthene**	**26**	**1,300**
129-00-0	**Pyrene**	**26**	**1,400**
85-68-7	Butylbenzylphthalate	26	< 26 U
91-94-1	3,3'-Dichlorobenzidine	130	< 130 U
56-55-3	**Benzo(a)anthracene**	**26**	**300**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**26**	**900**
218-01-9	**Chrysene**	**26**	**760**
117-84-0	Di-n-Octyl phthalate	26	< 26 U
205-99-2	**Benzo(b)fluoranthene**	**26**	**440**
207-08-9	**Benzo(k)fluoranthene**	**26**	**440**
50-32-8	**Benzo(a)pyrene**	**26**	**430**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**26**	**130**
53-70-3	**Dibenz(a,h)anthracene**	**26**	**65**
191-24-2	**Benzo(g,h,i)perylene**	**26**	**170**
62-53-3	Aniline	26	< 26 U
90-12-0	**1-Methylnaphthalene**	**26**	**99**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	86.8%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	78.7%	2-Fluorophenol	66.1%
2,4,6-Tribromophenol	106%	d4-2-Chlorophenol	64.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC50-0-1.6
SAMPLE

Lab Sample ID: QM80G
LIMS ID: 10-5597
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 17:04
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 36.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	26	< 26 U
111-44-4	Bis-(2-Chloroethyl) Ether	26	< 26 U
95-57-8	2-Chlorophenol	26	< 26 U
541-73-1	1,3-Dichlorobenzene	26	< 26 U
106-46-7	**1,4-Dichlorobenzene**	**26**	**13 J**
100-51-6	Benzyl Alcohol	26	< 26 U
95-50-1	1,2-Dichlorobenzene	26	< 26 U
95-48-7	2-Methylphenol	26	< 26 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	26	< 26 U
106-44-5	**4-Methylphenol**	**26**	**32**
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 U
67-72-1	Hexachloroethane	26	< 26 U
98-95-3	Nitrobenzene	26	< 26 U
78-59-1	Isophorone	26	< 26 U
88-75-5	2-Nitrophenol	130	< 130 U
105-67-9	2,4-Dimethylphenol	26	< 26 U
65-85-0	Benzoic Acid	260	< 260 U
111-91-1	bis(2-Chloroethoxy) Methane	26	< 26 U
120-83-2	2,4-Dichlorophenol	130	< 130 U
120-82-1	1,2,4-Trichlorobenzene	26	< 26 U
91-20-3	**Naphthalene**	**26**	**130**
106-47-8	4-Chloroaniline	130	< 130 U
87-68-3	Hexachlorobutadiene	26	< 26 U
59-50-7	4-Chloro-3-methylphenol	130	< 130 U
91-57-6	**2-Methylnaphthalene**	**26**	**47**
77-47-4	Hexachlorocyclopentadiene	130	< 130 U
88-06-2	2,4,6-Trichlorophenol	130	< 130 U
95-95-4	2,4,5-Trichlorophenol	130	< 130 U
91-58-7	2-Chloronaphthalene	26	< 26 U
88-74-4	2-Nitroaniline	130	< 130 U
131-11-3	Dimethylphthalate	26	< 26 U
208-96-8	**Acenaphthylene**	**26**	**82**
99-09-2	3-Nitroaniline	130	< 130 U
83-32-9	**Acenaphthene**	**26**	**51**
51-28-5	2,4-Dinitrophenol	260	< 260 U
100-02-7	4-Nitrophenol	130	< 130 U
132-64-9	**Dibenzofuran**	**26**	**44**
606-20-2	2,6-Dinitrotoluene	130	< 130 U
121-14-2	2,4-Dinitrotoluene	130	< 130 U
84-66-2	Diethylphthalate	26	< 26 U
7005-72-3	4-Chlorophenyl-phenylether	26	< 26 U
86-73-7	**Fluorene**	**26**	**85**
100-01-6	4-Nitroaniline	130	< 130 U
534-52-1	4,6-Dinitro-2-Methylphenol	260	< 260 U

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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC50-0-1.6
SAMPLE

Lab Sample ID: QM80G
LIMS ID: 10-5597
Matrix: Sediment
Date Analyzed: 03/15/10 17:04

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	26	< 26 U
101-55-3	4-Bromophenyl-phenylether	26	< 26 U
118-74-1	Hexachlorobenzene	26	< 26 U
87-86-5	Pentachlorophenol	130	< 130 U
85-01-8	**Phenanthrene**	**26**	**400**
86-74-8	**Carbazole**	**26**	**73**
120-12-7	**Anthracene**	**26**	**220**
84-74-2	Di-n-Butylphthalate	26	< 26 U
206-44-0	**Fluoranthene**	**26**	**920**
129-00-0	**Pyrene**	**26**	**1,800**
85-68-7	Butylbenzylphthalate	26	< 26 U
91-94-1	3,3'-Dichlorobenzidine	130	< 130 U
56-55-3	**Benzo(a)anthracene**	**26**	**470**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**26**	**170**
218-01-9	**Chrysene**	**26**	**860**
117-84-0	Di-n-Octyl phthalate	26	< 26 U
205-99-2	**Benzo(b)fluoranthene**	**26**	**600**
207-08-9	**Benzo(k)fluoranthene**	**26**	**600**
50-32-8	**Benzo(a)pyrene**	**26**	**850**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**26**	**330**
53-70-3	**Dibenz(a,h)anthracene**	**26**	**170**
191-24-2	**Benzo(g,h,i)perylene**	**26**	**370**
62-53-3	Aniline	26	< 26 U
90-12-0	**1-Methylnaphthalene**	**26**	**36**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	71.2%	2-Fluorobiphenyl	74.8%
d14-p-Terphenyl	113%	d4-1,2-Dichlorobenzene	61.6%
d5-Phenol	82.4%	2-Fluorophenol	69.6%
2,4,6-Tribromophenol	98.7%	d4-2-Chlorophenol	68.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC50-1.6-4
SAMPLE

Lab Sample ID: QM80H
LIMS ID: 10-5598
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 18:41
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**17 J**
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**11 J**
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC50-1.6-4
SAMPLE

Lab Sample ID: QM80H
LIMS ID: 10-5598
Matrix: Sediment
Date Analyzed: 03/15/10 18:41

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**28**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**26**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**66**
129-00-0	**Pyrene**	**20**	**85**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**22**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**21**
218-01-9	**Chrysene**	**20**	**24**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**16 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**16 J**
50-32-8	**Benzo(a)pyrene**	**20**	**19 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.4%	2-Fluorobiphenyl	63.6%
d14-p-Terphenyl	65.6%	d4-1,2-Dichlorobenzene	52.4%
d5-Phenol	65.9%	2-Fluorophenol	57.6%
2,4,6-Tribromophenol	74.1%	d4-2-Chlorophenol	56.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC51-0-2
SAMPLE

Lab Sample ID: QM57K
LIMS ID: 10-5423
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 20:08
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC51-0-2
SAMPLE

Lab Sample ID: QM57K
LIMS ID: 10-5423
Matrix: Sediment
Date Analyzed: 03/18/10 20:08

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**37 B**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.0%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	75.7%	2-Fluorophenol	63.7%
2,4,6-Tribromophenol	88.3%	d4-2-Chlorophenol	64.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC51-2-3.8
SAMPLE

Lab Sample ID: QM57L
LIMS ID: 10-5424
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 20:40
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC51-2-3.8
SAMPLE

Lab Sample ID: QM57L
LIMS ID: 10-5424
Matrix: Sediment
Date Analyzed: 03/18/10 20:40

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	**Di-n-Butylphthalate**	**20**	**10 J**
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**34 B**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.0%	2-Fluorobiphenyl	62.4%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	49.6%
d5-Phenol	65.3%	2-Fluorophenol	55.5%
2,4,6-Tribromophenol	78.7%	d4-2-Chlorophenol	56.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC52-0-2
SAMPLE

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 16:40
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 41.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	26	< 26 U
111-44-4	Bis-(2-Chloroethyl) Ether	26	< 26 U
95-57-8	2-Chlorophenol	26	< 26 U
541-73-1	1,3-Dichlorobenzene	26	< 26 U
106-46-7	1,4-Dichlorobenzene	26	< 26 U
100-51-6	Benzyl Alcohol	26	< 26 U
95-50-1	1,2-Dichlorobenzene	26	< 26 U
95-48-7	2-Methylphenol	26	< 26 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	26	< 26 U
106-44-5	**4-Methylphenol**	**26**	**37**
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 U
67-72-1	Hexachloroethane	26	< 26 U
98-95-3	Nitrobenzene	26	< 26 U
78-59-1	Isophorone	26	< 26 U
88-75-5	2-Nitrophenol	130	< 130 U
105-67-9	2,4-Dimethylphenol	26	< 26 U
65-85-0	Benzoic Acid	260	< 260 U
111-91-1	bis(2-Chloroethoxy) Methane	26	< 26 U
120-83-2	2,4-Dichlorophenol	130	< 130 U
120-82-1	1,2,4-Trichlorobenzene	26	< 26 U
91-20-3	**Naphthalene**	**26**	**59**
106-47-8	4-Chloroaniline	130	< 130 U
87-68-3	Hexachlorobutadiene	26	< 26 U
59-50-7	4-Chloro-3-methylphenol	130	< 130 U
91-57-6	**2-Methylnaphthalene**	**26**	**37**
77-47-4	Hexachlorocyclopentadiene	130	< 130 U
88-06-2	2,4,6-Trichlorophenol	130	< 130 U
95-95-4	2,4,5-Trichlorophenol	130	< 130 U
91-58-7	2-Chloronaphthalene	26	< 26 U
88-74-4	2-Nitroaniline	130	< 130 U
131-11-3	Dimethylphthalate	26	< 26 U
208-96-8	**Acenaphthylene**	**26**	**80**
99-09-2	3-Nitroaniline	130	< 130 U
83-32-9	**Acenaphthene**	**26**	**44**
51-28-5	2,4-Dinitrophenol	260	< 260 U
100-02-7	4-Nitrophenol	130	< 130 U
132-64-9	**Dibenzofuran**	**26**	**34**
606-20-2	2,6-Dinitrotoluene	130	< 130 U
121-14-2	2,4-Dinitrotoluene	130	< 130 U
84-66-2	Diethylphthalate	26	< 26 U
7005-72-3	4-Chlorophenyl-phenylether	26	< 26 U
86-73-7	**Fluorene**	**26**	**54**
100-01-6	4-Nitroaniline	130	< 130 U
534-52-1	4,6-Dinitro-2-Methylphenol	260	< 260 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC52-0-2
SAMPLE

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Date Analyzed: 03/16/10 16:40

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	26	< 26 U
101-55-3	4-Bromophenyl-phenylether	26	< 26 U
118-74-1	Hexachlorobenzene	26	< 26 U
87-86-5	Pentachlorophenol	130	< 130 U
85-01-8	**Phenanthrene**	**26**	**340**
86-74-8	**Carbazole**	**26**	**75**
120-12-7	**Anthracene**	**26**	**310**
84-74-2	Di-n-Butylphthalate	26	< 26 U
206-44-0	**Fluoranthene**	**26**	**640**
129-00-0	**Pyrene**	**26**	**3,900 ES**
85-68-7	Butylbenzylphthalate	26	< 26 U
91-94-1	3,3'-Dichlorobenzidine	130	< 130 U
56-55-3	**Benzo(a)anthracene**	**26**	**1,100**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**26**	**2,000**
218-01-9	**Chrysene**	**26**	**590**
117-84-0	Di-n-Octyl phthalate	26	< 26 U
205-99-2	**Benzo(b)fluoranthene**	**26**	**810**
207-08-9	**Benzo(k)fluoranthene**	**26**	**810**
50-32-8	**Benzo(a)pyrene**	**26**	**1,200**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**26**	**380**
53-70-3	**Dibenz(a,h)anthracene**	**26**	**230**
191-24-2	**Benzo(g,h,i)perylene**	**26**	**430**
62-53-3	Aniline	26	< 26 U
90-12-0	**1-Methylnaphthalene**	**26**	**25 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.4%	2-Fluorobiphenyl	78.8%
d14-p-Terphenyl	115%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	92.8%	2-Fluorophenol	72.0%
2,4,6-Tribromophenol	117%	d4-2-Chlorophenol	74.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC52-0-2
DILUTION

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 19:13
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 41.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	78	< 78 U
111-44-4	Bis-(2-Chloroethyl) Ether	78	< 78 U
95-57-8	2-Chlorophenol	78	< 78 U
541-73-1	1,3-Dichlorobenzene	78	< 78 U
106-46-7	1,4-Dichlorobenzene	78	< 78 U
100-51-6	Benzyl Alcohol	78	< 78 U
95-50-1	1,2-Dichlorobenzene	78	< 78 U
95-48-7	2-Methylphenol	78	< 78 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	78	< 78 U
106-44-5	4-Methylphenol	78	< 78 U
621-64-7	N-Nitroso-Di-N-Propylamine	390	< 390 U
67-72-1	Hexachloroethane	78	< 78 U
98-95-3	Nitrobenzene	78	< 78 U
78-59-1	Isophorone	78	< 78 U
88-75-5	2-Nitrophenol	390	< 390 U
105-67-9	2,4-Dimethylphenol	78	< 78 U
65-85-0	Benzoic Acid	780	< 780 U
111-91-1	bis(2-Chloroethoxy) Methane	78	< 78 U
120-83-2	2,4-Dichlorophenol	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	78	< 78 U
91-20-3	**Naphthalene**	**78**	**68 J**
106-47-8	4-Chloroaniline	390	< 390 U
87-68-3	Hexachlorobutadiene	78	< 78 U
59-50-7	4-Chloro-3-methylphenol	390	< 390 U
91-57-6	2-Methylnaphthalene	78	< 78 U
77-47-4	Hexachlorocyclopentadiene	390	< 390 U
88-06-2	2,4,6-Trichlorophenol	390	< 390 U
95-95-4	2,4,5-Trichlorophenol	390	< 390 U
91-58-7	2-Chloronaphthalene	78	< 78 U
88-74-4	2-Nitroaniline	390	< 390 U
131-11-3	Dimethylphthalate	78	< 78 U
208-96-8	**Acenaphthylene**	**78**	**120**
99-09-2	3-Nitroaniline	390	< 390 U
83-32-9	**Acenaphthene**	**78**	**53 J**
51-28-5	2,4-Dinitrophenol	780	< 780 U
100-02-7	4-Nitrophenol	390	< 390 U
132-64-9	Dibenzofuran	78	< 78 U
606-20-2	2,6-Dinitrotoluene	390	< 390 U
121-14-2	2,4-Dinitrotoluene	390	< 390 U
84-66-2	Diethylphthalate	78	< 78 U
7005-72-3	4-Chlorophenyl-phenylether	78	< 78 U
86-73-7	**Fluorene**	**78**	**56 J**
100-01-6	4-Nitroaniline	390	< 390 U
534-52-1	4,6-Dinitro-2-Methylphenol	780	< 780 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC52-0-2
DILUTION

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Date Analyzed: 03/15/10 19:13

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	78	< 78 U
101-55-3	4-Bromophenyl-phenylether	78	< 78 U
118-74-1	Hexachlorobenzene	78	< 78 U
87-86-5	Pentachlorophenol	390	< 390 U
85-01-8	**Phenanthrene**	**78**	**470**
86-74-8	**Carbazole**	**78**	**110**
120-12-7	**Anthracene**	**78**	**270**
84-74-2	Di-n-Butylphthalate	78	< 78 U
206-44-0	**Fluoranthene**	**78**	**890**
129-00-0	**Pyrene**	**78**	**3,700**
85-68-7	Butylbenzylphthalate	78	< 78 U
91-94-1	3,3'-Dichlorobenzidine	390	< 390 U
56-55-3	**Benzo(a)anthracene**	**78**	**480**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**78**	**2,000**
218-01-9	**Chrysene**	**78**	**740**
117-84-0	Di-n-Octyl phthalate	78	< 78 U
205-99-2	**Benzo(b)fluoranthene**	**78**	**1,300**
207-08-9	**Benzo(k)fluoranthene**	**78**	**1,300**
50-32-8	**Benzo(a)pyrene**	**78**	**1,400**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**78**	**310**
53-70-3	**Dibenz(a,h)anthracene**	**78**	**200**
191-24-2	**Benzo(g,h,i)perylene**	**78**	**330**
62-53-3	Aniline	78	< 78 U
90-12-0	1-Methylnaphthalene	78	< 78 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	81.7%	2-Fluorobiphenyl	94.1%
d14-p-Terphenyl	105%	d4-1,2-Dichlorobenzene	72.5%
d5-Phenol	96.0%	2-Fluorophenol	76.5%
2,4,6-Tribromophenol	113%	d4-2-Chlorophenol	80.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC52-2-4
SAMPLE

Lab Sample ID: QM80J
LIMS ID: 10-5600
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 20:11
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 21.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	24	< 24 U
111-44-4	Bis-(2-Chloroethyl) Ether	24	< 24 U
95-57-8	2-Chlorophenol	24	< 24 U
541-73-1	1,3-Dichlorobenzene	24	< 24 U
106-46-7	1,4-Dichlorobenzene	24	< 24 U
100-51-6	Benzyl Alcohol	24	< 24 U
95-50-1	1,2-Dichlorobenzene	24	< 24 U
95-48-7	2-Methylphenol	24	< 24 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	24	< 24 U
106-44-5	4-Methylphenol	24	< 24 U
621-64-7	N-Nitroso-Di-N-Propylamine	120	< 120 U
67-72-1	Hexachloroethane	24	< 24 U
98-95-3	Nitrobenzene	24	< 24 U
78-59-1	Isophorone	24	< 24 U
88-75-5	2-Nitrophenol	120	< 120 U
105-67-9	2,4-Dimethylphenol	24	< 24 U
65-85-0	Benzoic Acid	240	< 240 U
111-91-1	bis(2-Chloroethoxy) Methane	24	< 24 U
120-83-2	2,4-Dichlorophenol	120	< 120 U
120-82-1	1,2,4-Trichlorobenzene	24	< 24 U
91-20-3	**Naphthalene**	**24**	**120**
106-47-8	4-Chloroaniline	120	< 120 U
87-68-3	Hexachlorobutadiene	24	< 24 U
59-50-7	4-Chloro-3-methylphenol	120	< 120 U
91-57-6	**2-Methylnaphthalene**	**24**	**72**
77-47-4	Hexachlorocyclopentadiene	120	< 120 U
88-06-2	2,4,6-Trichlorophenol	120	< 120 U
95-95-4	2,4,5-Trichlorophenol	120	< 120 U
91-58-7	2-Chloronaphthalene	24	< 24 U
88-74-4	2-Nitroaniline	120	< 120 U
131-11-3	Dimethylphthalate	24	< 24 U
208-96-8	Acenaphthylene	24	< 24 U
99-09-2	3-Nitroaniline	120	< 120 U
83-32-9	**Acenaphthene**	**24**	**82**
51-28-5	2,4-Dinitrophenol	240	< 240 U
100-02-7	4-Nitrophenol	120	< 120 U
132-64-9	**Dibenzofuran**	**24**	**55**
606-20-2	2,6-Dinitrotoluene	120	< 120 U
121-14-2	2,4-Dinitrotoluene	120	< 120 U
84-66-2	Diethylphthalate	24	< 24 U
7005-72-3	4-Chlorophenyl-phenylether	24	< 24 U
86-73-7	**Fluorene**	**24**	**30**
100-01-6	4-Nitroaniline	120	< 120 U
534-52-1	4,6-Dinitro-2-Methylphenol	240	< 240 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC52-2-4
SAMPLE

Lab Sample ID: QM80J
LIMS ID: 10-5600
Matrix: Sediment
Date Analyzed: 03/15/10 20:11

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	24	< 24 U
101-55-3	4-Bromophenyl-phenylether	24	< 24 U
118-74-1	Hexachlorobenzene	24	< 24 U
87-86-5	Pentachlorophenol	120	< 120 U
85-01-8	**Phenanthrene**	**24**	**43**
86-74-8	**Carbazole**	**24**	**12 J**
120-12-7	**Anthracene**	**24**	**23 J**
84-74-2	Di-n-Butylphthalate	24	< 24 U
206-44-0	**Fluoranthene**	**24**	**69**
129-00-0	**Pyrene**	**24**	**280**
85-68-7	Butylbenzylphthalate	24	< 24 U
91-94-1	3,3'-Dichlorobenzidine	120	< 120 U
56-55-3	**Benzo(a)anthracene**	**24**	**24**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**35**
218-01-9	**Chrysene**	**24**	**36**
117-84-0	Di-*n*-Octyl phthalate	24	< 24 U
205-99-2	**Benzo(b)fluoranthene**	**24**	**79**
207-08-9	**Benzo(k)fluoranthene**	**24**	**79**
50-32-8	**Benzo(a)pyrene**	**24**	**83**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**24**	**20 J**
53-70-3	Dibenz(a,h)anthracene	24	< 24 U
191-24-2	**Benzo(g,h,i)perylene**	**24**	**19 J**
62-53-3	Aniline	24	< 24 U
90-12-0	**1-Methylnaphthalene**	**24**	**33**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.4%	2-Fluorobiphenyl	76.8%
d14-p-Terphenyl	80.4%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	79.7%	2-Fluorophenol	68.5%
2,4,6-Tribromophenol	98.7%	d4-2-Chlorophenol	66.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC53-0-2
SAMPLE

Lab Sample ID: QM80K
LIMS ID: 10-5601
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 20:43
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 33.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**12 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**11 J**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**41**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**20**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	**Dimethylphthalate**	**20**	**10 J**
208-96-8	**Acenaphthylene**	**20**	**52**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**36**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**22**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**42**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC53-0-2
SAMPLE

Lab Sample ID: QM80K
LIMS ID: 10-5601
Matrix: Sediment
Date Analyzed: 03/15/10 20:43

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**240**
86-74-8	**Carbazole**	**20**	**45**
120-12-7	**Anthracene**	**20**	**140**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**420**
129-00-0	**Pyrene**	**20**	**550**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**210**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**280**
218-01-9	**Chrysene**	**20**	**330**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**460**
207-08-9	**Benzo(k)fluoranthene**	**20**	**460**
50-32-8	**Benzo(a)pyrene**	**20**	**450**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**120**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**71**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**110**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**15 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.8%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	82.8%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	79.7%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	102%	d4-2-Chlorophenol	67.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC53-2-4
SAMPLE

Lab Sample ID: QM80L
LIMS ID: 10-5602
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 21:15
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 22.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 33.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	22	< 22 U
111-44-4	Bis-(2-Chloroethyl) Ether	22	< 22 U
95-57-8	2-Chlorophenol	22	< 22 U
541-73-1	1,3-Dichlorobenzene	22	< 22 U
106-46-7	1,4-Dichlorobenzene	22	< 22 U
100-51-6	Benzyl Alcohol	22	< 22 U
95-50-1	1,2-Dichlorobenzene	22	< 22 U
95-48-7	2-Methylphenol	22	< 22 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	22	< 22 U
106-44-5	**4-Methylphenol**	**22**	**19 J**
621-64-7	N-Nitroso-Di-N-Propylamine	110	< 110 U
67-72-1	Hexachloroethane	22	< 22 U
98-95-3	Nitrobenzene	22	< 22 U
78-59-1	Isophorone	22	< 22 U
88-75-5	2-Nitrophenol	110	< 110 U
105-67-9	2,4-Dimethylphenol	22	< 22 U
65-85-0	Benzoic Acid	220	< 220 U
111-91-1	bis(2-Chloroethoxy) Methane	22	< 22 U
120-83-2	2,4-Dichlorophenol	110	< 110 U
120-82-1	1,2,4-Trichlorobenzene	22	< 22 U
91-20-3	**Naphthalene**	**22**	**28**
106-47-8	4-Chloroaniline	110	< 110 U
87-68-3	Hexachlorobutadiene	22	< 22 U
59-50-7	4-Chloro-3-methylphenol	110	< 110 U
91-57-6	**2-Methylnaphthalene**	**22**	**17 J**
77-47-4	Hexachlorocyclopentadiene	110	< 110 U
88-06-2	2,4,6-Trichlorophenol	110	< 110 U
95-95-4	2,4,5-Trichlorophenol	110	< 110 U
91-58-7	2-Chloronaphthalene	22	< 22 U
88-74-4	2-Nitroaniline	110	< 110 U
131-11-3	Dimethylphthalate	22	< 22 U
208-96-8	**Acenaphthylene**	**22**	**24**
99-09-2	3-Nitroaniline	110	< 110 U
83-32-9	**Acenaphthene**	**22**	**24**
51-28-5	2,4-Dinitrophenol	220	< 220 U
100-02-7	4-Nitrophenol	110	< 110 U
132-64-9	**Dibenzofuran**	**22**	**14 J**
606-20-2	2,6-Dinitrotoluene	110	< 110 U
121-14-2	2,4-Dinitrotoluene	110	< 110 U
84-66-2	Diethylphthalate	22	< 22 U
7005-72-3	4-Chlorophenyl-phenylether	22	< 22 U
86-73-7	**Fluorene**	**22**	**29**
100-01-6	4-Nitroaniline	110	< 110 U
534-52-1	4,6-Dinitro-2-Methylphenol	220	< 220 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC53-2-4
SAMPLE

Lab Sample ID: QM80L
LIMS ID: 10-5602
Matrix: Sediment
Date Analyzed: 03/15/10 21:15

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	22	< 22 U
101-55-3	4-Bromophenyl-phenylether	22	< 22 U
118-74-1	Hexachlorobenzene	22	< 22 U
87-86-5	Pentachlorophenol	110	< 110 U
85-01-8	**Phenanthrene**	**22**	**180**
86-74-8	**Carbazole**	**22**	**27**
120-12-7	**Anthracene**	**22**	**76**
84-74-2	Di-n-Butylphthalate	22	< 22 U
206-44-0	**Fluoranthene**	**22**	**230**
129-00-0	**Pyrene**	**22**	**600**
85-68-7	Butylbenzylphthalate	22	< 22 U
91-94-1	3,3'-Dichlorobenzidine	110	< 110 U
56-55-3	**Benzo(a)anthracene**	**22**	**94**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**22**	**340**
218-01-9	**Chrysene**	**22**	**130**
117-84-0	Di-n-Octyl phthalate	22	< 22 U
205-99-2	**Benzo(b)fluoranthene**	**22**	**220**
207-08-9	**Benzo(k)fluoranthene**	**22**	**220**
50-32-8	**Benzo(a)pyrene**	**22**	**240**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**22**	**57**
53-70-3	**Dibenz(a,h)anthracene**	**22**	**30**
191-24-2	**Benzo(g,h,i)perylene**	**22**	**55**
62-53-3	Aniline	22	< 22 U
90-12-0	**1-Methylnaphthalene**	**22**	**13 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.0%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	83.2%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	75.2%	2-Fluorophenol	62.1%
2,4,6-Tribromophenol	99.7%	d4-2-Chlorophenol	63.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-0-2
SAMPLE

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 21:47
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 29.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	78	< 78 U
111-44-4	Bis-(2-Chloroethyl) Ether	78	< 78 U
95-57-8	2-Chlorophenol	78	< 78 U
541-73-1	1,3-Dichlorobenzene	78	< 78 U
106-46-7	1,4-Dichlorobenzene	78	< 78 U
100-51-6	Benzyl Alcohol	78	< 78 U
95-50-1	1,2-Dichlorobenzene	78	< 78 U
95-48-7	**2-Methylphenol**	**78**	**62 J**
108-60-1	2,2'-Oxybis(1-Chloropropane)	78	< 78 U
106-44-5	**4-Methylphenol**	**78**	**130**
621-64-7	N-Nitroso-Di-N-Propylamine	390	< 390 U
67-72-1	Hexachloroethane	78	< 78 U
98-95-3	Nitrobenzene	78	< 78 U
78-59-1	Isophorone	78	< 78 U
88-75-5	2-Nitrophenol	390	< 390 U
105-67-9	2,4-Dimethylphenol	78	< 78 U
65-85-0	Benzoic Acid	780	< 780 U
111-91-1	bis(2-Chloroethoxy) Methane	78	< 78 U
120-83-2	2,4-Dichlorophenol	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	78	< 78 U
91-20-3	**Naphthalene**	**78**	**1,600**
106-47-8	4-Chloroaniline	390	< 390 U
87-68-3	Hexachlorobutadiene	78	< 78 U
59-50-7	4-Chloro-3-methylphenol	390	< 390 U
91-57-6	**2-Methylnaphthalene**	**78**	**1,000**
77-47-4	Hexachlorocyclopentadiene	390	< 390 U
88-06-2	2,4,6-Trichlorophenol	390	< 390 U
95-95-4	2,4,5-Trichlorophenol	390	< 390 U
91-58-7	2-Chloronaphthalene	78	< 78 U
88-74-4	2-Nitroaniline	390	< 390 U
131-11-3	Dimethylphthalate	78	< 78 U
208-96-8	**Acenaphthylene**	**78**	**780**
99-09-2	3-Nitroaniline	390	< 390 U
83-32-9	**Acenaphthene**	**78**	**2,000**
51-28-5	2,4-Dinitrophenol	780	< 780 U
100-02-7	4-Nitrophenol	390	< 390 U
132-64-9	**Dibenzofuran**	**78**	**740**
606-20-2	2,6-Dinitrotoluene	390	< 390 U
121-14-2	2,4-Dinitrotoluene	390	< 390 U
84-66-2	Diethylphthalate	78	< 78 U
7005-72-3	4-Chlorophenyl-phenylether	78	< 78 U
86-73-7	**Fluorene**	**78**	**2,200**
100-01-6	4-Nitroaniline	390	< 390 U
534-52-1	4,6-Dinitro-2-Methylphenol	780	< 780 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-0-2
SAMPLE

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Date Analyzed: 03/15/10 21:47

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	78	< 78 U
101-55-3	4-Bromophenyl-phenylether	78	< 78 U
118-74-1	Hexachlorobenzene	78	< 78 U
87-86-5	Pentachlorophenol	390	< 390 U
85-01-8	**Phenanthrene**	**78**	**8,900 ES**
86-74-8	**Carbazole**	**78**	**1,400**
120-12-7	**Anthracene**	**78**	**3,400**
84-74-2	Di-n-Butylphthalate	78	< 78 U
206-44-0	**Fluoranthene**	**78**	**9,900 ES**
129-00-0	**Pyrene**	**78**	**8,500 ES**
85-68-7	Butylbenzylphthalate	78	< 78 U
91-94-1	3,3'-Dichlorobenzidine	390	< 390 U
56-55-3	**Benzo(a)anthracene**	**78**	**5,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**78**	**1,400**
218-01-9	**Chrysene**	**78**	**5,300**
117-84-0	Di-n-Octyl phthalate	78	< 78 U
205-99-2	**Benzo(b)fluoranthene**	**78**	**4,200**
207-08-9	**Benzo(k)fluoranthene**	**78**	**4,200**
50-32-8	**Benzo(a)pyrene**	**78**	**5,300**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**78**	**1,500**
53-70-3	**Dibenz(a,h)anthracene**	**78**	**850**
191-24-2	**Benzo(g,h,i)perylene**	**78**	**1,400**
62-53-3	Aniline	78	< 78 U
90-12-0	**1-Methylnaphthalene**	**78**	**1,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.6%	2-Fluorobiphenyl	75.0%
d14-p-Terphenyl	77.4%	d4-1,2-Dichlorobenzene	55.1%
d5-Phenol	74.3%	2-Fluorophenol	58.5%
2,4,6-Tribromophenol	83.2%	d4-2-Chlorophenol	61.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-0-2
DILUTION

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 16:08
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 19.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 29.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	260	< 260 U
111-44-4	Bis-(2-Chloroethyl) Ether	260	< 260 U
95-57-8	2-Chlorophenol	260	< 260 U
541-73-1	1,3-Dichlorobenzene	260	< 260 U
106-46-7	1,4-Dichlorobenzene	260	< 260 U
100-51-6	Benzyl Alcohol	260	< 260 U
95-50-1	1,2-Dichlorobenzene	260	< 260 U
95-48-7	2-Methylphenol	260	< 260 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	260	< 260 U
106-44-5	**4-Methylphenol**	**260**	**150 J**
621-64-7	N-Nitroso-Di-N-Propylamine	1,300	< 1,300 U
67-72-1	Hexachloroethane	260	< 260 U
98-95-3	Nitrobenzene	260	< 260 U
78-59-1	Isophorone	260	< 260 U
88-75-5	2-Nitrophenol	1,300	< 1,300 U
105-67-9	2,4-Dimethylphenol	260	< 260 U
65-85-0	Benzoic Acid	2,600	< 2,600 U
111-91-1	bis(2-Chloroethoxy) Methane	260	< 260 U
120-83-2	2,4-Dichlorophenol	1,300	< 1,300 U
120-82-1	1,2,4-Trichlorobenzene	260	< 260 U
91-20-3	**Naphthalene**	**260**	**1,600**
106-47-8	4-Chloroaniline	1,300	< 1,300 U
87-68-3	Hexachlorobutadiene	260	< 260 U
59-50-7	4-Chloro-3-methylphenol	1,300	< 1,300 U
91-57-6	**2-Methylnaphthalene**	**260**	**1,000**
77-47-4	Hexachlorocyclopentadiene	1,300	< 1,300 U
88-06-2	2,4,6-Trichlorophenol	1,300	< 1,300 U
95-95-4	2,4,5-Trichlorophenol	1,300	< 1,300 U
91-58-7	2-Chloronaphthalene	260	< 260 U
88-74-4	2-Nitroaniline	1,300	< 1,300 U
131-11-3	Dimethylphthalate	260	< 260 U
208-96-8	**Acenaphthylene**	**260**	**600**
99-09-2	3-Nitroaniline	1,300	< 1,300 U
83-32-9	**Acenaphthene**	**260**	**2,000**
51-28-5	2,4-Dinitrophenol	2,600	< 2,600 U
100-02-7	4-Nitrophenol	1,300	< 1,300 U
132-64-9	**Dibenzofuran**	**260**	**830**
606-20-2	2,6-Dinitrotoluene	1,300	< 1,300 U
121-14-2	2,4-Dinitrotoluene	1,300	< 1,300 U
84-66-2	Diethylphthalate	260	< 260 U
7005-72-3	4-Chlorophenyl-phenylether	260	< 260 U
86-73-7	**Fluorene**	**260**	**2,300**
100-01-6	4-Nitroaniline	1,300	< 1,300 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,600	< 2,600 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-0-2
DILUTION

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Date Analyzed: 03/16/10 16:08

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	260	< 260 U
101-55-3	4-Bromophenyl-phenylether	260	< 260 U
118-74-1	Hexachlorobenzene	260	< 260 U
87-86-5	Pentachlorophenol	1,300	< 1,300 U
85-01-8	**Phenanthrene**	**260**	**12,000**
86-74-8	**Carbazole**	**260**	**1,300**
120-12-7	**Anthracene**	**260**	**3,500**
84-74-2	Di-n-Butylphthalate	260	< 260 U
206-44-0	**Fluoranthene**	**260**	**13,000**
129-00-0	**Pyrene**	**260**	**13,000**
85-68-7	Butylbenzylphthalate	260	< 260 U
91-94-1	3,3'-Dichlorobenzidine	1,300	< 1,300 U
56-55-3	**Benzo(a)anthracene**	**260**	**5,800**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**260**	**1,300**
218-01-9	**Chrysene**	**260**	**6,600**
117-84-0	Di-n-Octyl phthalate	260	< 260 U
205-99-2	**Benzo(b)fluoranthene**	**260**	**4,000**
207-08-9	**Benzo(k)fluoranthene**	**260**	**4,000**
50-32-8	**Benzo(a)pyrene**	**260**	**5,800**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**260**	**2,800**
53-70-3	**Dibenz(a,h)anthracene**	**260**	**1,400**
191-24-2	**Benzo(g,h,i)perylene**	**260**	**3,000**
62-53-3	Aniline	260	< 260 U
90-12-0	**1-Methylnaphthalene**	**260**	**1,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.6%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	76.5%	2-Fluorophenol	55.2%
2,4,6-Tribromophenol	72.0%	d4-2-Chlorophenol	61.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-2-4
SAMPLE

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/15/10 22:19
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 44.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	120	< 120 U
111-44-4	Bis-(2-Chloroethyl) Ether	120	< 120 U
95-57-8	2-Chlorophenol	120	< 120 U
541-73-1	1,3-Dichlorobenzene	120	< 120 U
106-46-7	1,4-Dichlorobenzene	120	< 120 U
100-51-6	Benzyl Alcohol	120	< 120 U
95-50-1	1,2-Dichlorobenzene	120	< 120 U
95-48-7	2-Methylphenol	120	< 120 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	120	< 120 U
106-44-5	**4-Methylphenol**	**120**	**280**
621-64-7	N-Nitroso-Di-N-Propylamine	610	< 610 U
67-72-1	Hexachloroethane	120	< 120 U
98-95-3	Nitrobenzene	120	< 120 U
78-59-1	Isophorone	120	< 120 U
88-75-5	2-Nitrophenol	610	< 610 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
111-91-1	bis(2-Chloroethoxy) Methane	120	< 120 U
120-83-2	2,4-Dichlorophenol	610	< 610 U
120-82-1	1,2,4-Trichlorobenzene	120	< 120 U
91-20-3	**Naphthalene**	**120**	**480**
106-47-8	4-Chloroaniline	610	< 610 U
87-68-3	Hexachlorobutadiene	120	< 120 U
59-50-7	4-Chloro-3-methylphenol	610	< 610 U
91-57-6	**2-Methylnaphthalene**	**120**	**190**
77-47-4	Hexachlorocyclopentadiene	610	< 610 U
88-06-2	2,4,6-Trichlorophenol	610	< 610 U
95-95-4	2,4,5-Trichlorophenol	610	< 610 U
91-58-7	2-Chloronaphthalene	120	< 120 U
88-74-4	2-Nitroaniline	610	< 610 U
131-11-3	Dimethylphthalate	120	< 120 U
208-96-8	**Acenaphthylene**	**120**	**350**
99-09-2	3-Nitroaniline	610	< 610 U
83-32-9	**Acenaphthene**	**120**	**260**
51-28-5	2,4-Dinitrophenol	1,200	< 1,200 U
100-02-7	4-Nitrophenol	610	< 610 U
132-64-9	**Dibenzofuran**	**120**	**180**
606-20-2	2,6-Dinitrotoluene	610	< 610 U
121-14-2	2,4-Dinitrotoluene	610	< 610 U
84-66-2	Diethylphthalate	120	< 120 U
7005-72-3	4-Chlorophenyl-phenylether	120	< 120 U
86-73-7	**Fluorene**	**120**	**310**
100-01-6	4-Nitroaniline	610	< 610 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,200	< 1,200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-2-4
SAMPLE

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Date Analyzed: 03/15/10 22:19

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	120	< 120 U
101-55-3	4-Bromophenyl-phenylether	120	< 120 U
118-74-1	Hexachlorobenzene	120	< 120 U
87-86-5	Pentachlorophenol	610	< 610 U
85-01-8	**Phenanthrene**	**120**	**1,500**
86-74-8	Carbazole	120	< 120 U
120-12-7	**Anthracene**	**120**	**1,500**
84-74-2	Di-n-Butylphthalate	120	< 120 U
206-44-0	**Fluoranthene**	**120**	**7,500**
129-00-0	**Pyrene**	**120**	**7,100**
85-68-7	Butylbenzylphthalate	120	< 120 U
91-94-1	3,3'-Dichlorobenzidine	610	< 610 U
56-55-3	**Benzo(a)anthracene**	**120**	**2,800**
117-81-7	bis(2-Ethylhexyl)phthalate	120	< 120 U
218-01-9	**Chrysene**	**120**	**4,000**
117-84-0	Di-n-Octyl phthalate	120	< 120 U
205-99-2	**Benzo(b)fluoranthene**	**120**	**2,700**
207-08-9	**Benzo(k)fluoranthene**	**120**	**2,700**
50-32-8	**Benzo(a)pyrene**	**120**	**2,800**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**120**	**700**
53-70-3	**Dibenz(a,h)anthracene**	**120**	**300**
191-24-2	**Benzo(g,h,i)perylene**	**120**	**660**
62-53-3	Aniline	120	< 120 U
90-12-0	**1-Methylnaphthalene**	**120**	**140**

Reported in $\mu g/kg$ (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	80.0%	2-Fluorobiphenyl	79.4%
d14-p-Terphenyl	106%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	86.4%	2-Fluorophenol	69.8%
2,4,6-Tribromophenol	114%	d4-2-Chlorophenol	73.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-2-4
DILUTION

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 17:12
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 44.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	410	< 410 U
111-44-4	Bis-(2-Chloroethyl) Ether	410	< 410 U
95-57-8	2-Chlorophenol	410	< 410 U
541-73-1	1,3-Dichlorobenzene	410	< 410 U
106-46-7	1,4-Dichlorobenzene	410	< 410 U
100-51-6	Benzyl Alcohol	410	< 410 U
95-50-1	1,2-Dichlorobenzene	410	< 410 U
95-48-7	2-Methylphenol	410	< 410 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	< 410 U
106-44-5	**4-Methylphenol**	**410**	**280 J**
621-64-7	N-Nitroso-Di-N-Propylamine	2,000	< 2,000 U
67-72-1	Hexachloroethane	410	< 410 U
98-95-3	Nitrobenzene	410	< 410 U
78-59-1	Isophorone	410	< 410 U
88-75-5	2-Nitrophenol	2,000	< 2,000 U
105-67-9	2,4-Dimethylphenol	410	< 410 U
65-85-0	Benzoic Acid	4,100	< 4,100 U
111-91-1	bis(2-Chloroethoxy) Methane	410	< 410 U
120-83-2	2,4-Dichlorophenol	2,000	< 2,000 U
120-82-1	1,2,4-Trichlorobenzene	410	< 410 U
91-20-3	**Naphthalene**	**410**	**460**
106-47-8	4-Chloroaniline	2,000	< 2,000 U
87-68-3	Hexachlorobutadiene	410	< 410 U
59-50-7	4-Chloro-3-methylphenol	2,000	< 2,000 U
91-57-6	2-Methylnaphthalene	410	< 410 U
77-47-4	Hexachlorocyclopentadiene	2,000	< 2,000 U
88-06-2	2,4,6-Trichlorophenol	2,000	< 2,000 U
95-95-4	2,4,5-Trichlorophenol	2,000	< 2,000 U
91-58-7	2-Chloronaphthalene	410	< 410 U
88-74-4	2-Nitroaniline	2,000	< 2,000 U
131-11-3	Dimethylphthalate	410	< 410 U
208-96-8	**Acenaphthylene**	**410**	**220 J**
99-09-2	3-Nitroaniline	2,000	< 2,000 U
83-32-9	**Acenaphthene**	**410**	**230 J**
51-28-5	2,4-Dinitrophenol	4,100	< 4,100 U
100-02-7	4-Nitrophenol	2,000	< 2,000 U
132-64-9	Dibenzofuran	410	< 410 U
606-20-2	2,6-Dinitrotoluene	2,000	< 2,000 U
121-14-2	2,4-Dinitrotoluene	2,000	< 2,000 U
84-66-2	Diethylphthalate	410	< 410 U
7005-72-3	4-Chlorophenyl-phenylether	410	< 410 U
86-73-7	**Fluorene**	**410**	**300 J**
100-01-6	4-Nitroaniline	2,000	< 2,000 U
534-52-1	4,6-Dinitro-2-Methylphenol	4,100	< 4,100 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC54-2-4
DILUTION

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Date Analyzed: 03/16/10 17:12

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	410	< 410 U
101-55-3	4-Bromophenyl-phenylether	410	< 410 U
118-74-1	Hexachlorobenzene	410	< 410 U
87-86-5	Pentachlorophenol	2,000	< 2,000 U
85-01-8	**Phenanthrene**	**410**	**1,500**
86-74-8	Carbazole	410	< 410 U
120-12-7	**Anthracene**	**410**	**1,300**
84-74-2	Di-n-Butylphthalate	410	< 410 U
206-44-0	**Fluoranthene**	**410**	**9,800**
129-00-0	**Pyrene**	**410**	**7,000**
85-68-7	Butylbenzylphthalate	410	< 410 U
91-94-1	3,3'-Dichlorobenzidine	2,000	< 2,000 U
56-55-3	**Benzo(a)anthracene**	**410**	**3,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**410**	**330 J**
218-01-9	**Chrysene**	**410**	**4,000**
117-84-0	Di-n-Octyl phthalate	410	< 410 U
205-99-2	**Benzo(b)fluoranthene**	**410**	**2,300**
207-08-9	**Benzo(k)fluoranthene**	**410**	**2,300**
50-32-8	**Benzo(a)pyrene**	**410**	**2,500**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**410**	**850**
53-70-3	**Dibenz(a,h)anthracene**	**410**	**400 J**
191-24-2	**Benzo(g,h,i)perylene**	**410**	**840**
62-53-3	Aniline	410	< 410 U
90-12-0	1-Methylnaphthalene	410	< 410 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.4%	2-Fluorobiphenyl	80.8%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	86.1%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	90.7%	d4-2-Chlorophenol	72.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC55-0-2
SAMPLE

Lab Sample ID: QL86O
LIMS ID: 10-4962
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 19:15
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**21**
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	**Acenaphthene**	**19**	**15 J**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	**Dibenzofuran**	**19**	**13 J**
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**16 J**
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC55-0-2
SAMPLE

Lab Sample ID: QL86O
LIMS ID: 10-4962
Matrix: Sediment
Date Analyzed: 03/10/10 19:15

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	**Phenanthrene**	**19**	**140**
86-74-8	**Carbazole**	**19**	**14 J**
120-12-7	**Anthracene**	**19**	**24**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**160**
129-00-0	**Pyrene**	**19**	**220**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	**Benzo(a)anthracene**	**19**	**65**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**86**
218-01-9	**Chrysene**	**19**	**110**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**95**
207-08-9	**Benzo(k)fluoranthene**	**19**	**95**
50-32-8	**Benzo(a)pyrene**	**19**	**100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**53**
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**57**
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	43.6%	2-Fluorobiphenyl	64.8%
d14-p-Terphenyl	91.6%	d4-1,2-Dichlorobenzene	51.6%
d5-Phenol	65.1%	2-Fluorophenol	60.3%
2,4,6-Tribromophenol	60.3%	d4-2-Chlorophenol	56.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC55-2-4
SAMPLE

Lab Sample ID: QL86P
LIMS ID: 10-4963
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 19:48
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	**Diethylphthalate**	**19**	**16 J**
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC55-2-4
SAMPLE

Lab Sample ID: QL86P
LIMS ID: 10-4963
Matrix: Sediment
Date Analyzed: 03/10/10 19:48

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	**Di-n-Butylphthalate**	**19**	**38**
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**27**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	55.2%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	84.8%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	77.3%	2-Fluorophenol	70.7%
2,4,6-Tribromophenol	69.1%	d4-2-Chlorophenol	63.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC57-0-2
SAMPLE

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 00:01
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 21.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	24	< 24 U
111-44-4	Bis-(2-Chloroethyl) Ether	24	< 24 U
95-57-8	2-Chlorophenol	24	< 24 U
541-73-1	1,3-Dichlorobenzene	24	< 24 U
106-46-7	**1,4-Dichlorobenzene**	**24**	**43**
100-51-6	Benzyl Alcohol	24	< 24 U
95-50-1	1,2-Dichlorobenzene	24	< 24 U
95-48-7	2-Methylphenol	24	< 24 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	24	< 24 U
106-44-5	4-Methylphenol	24	< 24 U
621-64-7	N-Nitroso-Di-N-Propylamine	120	< 120 U
67-72-1	Hexachloroethane	24	< 24 U
98-95-3	Nitrobenzene	24	< 24 U
78-59-1	Isophorone	24	< 24 U
88-75-5	2-Nitrophenol	120	< 120 U
105-67-9	2,4-Dimethylphenol	24	< 24 U
65-85-0	Benzoic Acid	240	< 240 U
111-91-1	bis(2-Chloroethoxy) Methane	24	< 24 U
120-83-2	2,4-Dichlorophenol	120	< 120 U
120-82-1	1,2,4-Trichlorobenzene	24	< 24 U
91-20-3	**Naphthalene**	**24**	**120**
106-47-8	4-Chloroaniline	120	< 120 U
87-68-3	Hexachlorobutadiene	24	< 24 U
59-50-7	4-Chloro-3-methylphenol	120	< 120 U
91-57-6	**2-Methylnaphthalene**	**24**	**23 J**
77-47-4	Hexachlorocyclopentadiene	120	< 120 U
88-06-2	2,4,6-Trichlorophenol	120	< 120 U
95-95-4	2,4,5-Trichlorophenol	120	< 120 U
91-58-7	2-Chloronaphthalene	24	< 24 U
88-74-4	2-Nitroaniline	120	< 120 U
131-11-3	Dimethylphthalate	24	< 24 U
208-96-8	**Acenaphthylene**	**24**	**160**
99-09-2	3-Nitroaniline	120	< 120 U
83-32-9	**Acenaphthene**	**24**	**180**
51-28-5	2,4-Dinitrophenol	240	< 240 U
100-02-7	4-Nitrophenol	120	< 120 U
132-64-9	**Dibenzofuran**	**24**	**74**
606-20-2	2,6-Dinitrotoluene	120	< 120 U
121-14-2	2,4-Dinitrotoluene	120	< 120 U
84-66-2	Diethylphthalate	24	< 24 U
7005-72-3	4-Chlorophenyl-phenylether	24	< 24 U
86-73-7	**Fluorene**	**24**	**150**
100-01-6	4-Nitroaniline	120	< 120 U
534-52-1	4,6-Dinitro-2-Methylphenol	240	< 240 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC57-0-2
SAMPLE

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Date Analyzed: 03/13/10 00:01

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	24	< 24 U
101-55-3	4-Bromophenyl-phenylether	24	< 24 U
118-74-1	Hexachlorobenzene	24	< 24 U
87-86-5	Pentachlorophenol	120	< 120 U
85-01-8	**Phenanthrene**	**24**	**1,200**
86-74-8	**Carbazole**	**24**	**73**
120-12-7	**Anthracene**	**24**	**370**
84-74-2	Di-n-Butylphthalate	24	< 24 U
206-44-0	**Fluoranthene**	**24**	**1,900**
129-00-0	**Pyrene**	**24**	**2,500 ES**
85-68-7	Butylbenzylphthalate	24	< 24 U
91-94-1	3,3'-Dichlorobenzidine	120	< 120 U
56-55-3	**Benzo(a)anthracene**	**24**	**840**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**120**
218-01-9	**Chrysene**	**24**	**1,100**
117-84-0	Di-n-Octyl phthalate	24	< 24 U
205-99-2	**Benzo(b)fluoranthene**	**24**	**1,100**
207-08-9	**Benzo(k)fluoranthene**	**24**	**1,100**
50-32-8	**Benzo(a)pyrene**	**24**	**1,200**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**24**	**200**
53-70-3	**Dibenz(a,h)anthracene**	**24**	**92**
191-24-2	**Benzo(g,h,i)perylene**	**24**	**200**
62-53-3	Aniline	24	< 24 U
90-12-0	**1-Methylnaphthalene**	**24**	**20 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	73.2%
d14-p-Terphenyl	70.4%	d4-1,2-Dichlorobenzene	59.6%
d5-Phenol	72.0%	2-Fluorophenol	69.6%
2,4,6-Tribromophenol	94.9%	d4-2-Chlorophenol	62.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC57-0-2
DILUTION

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 03:39
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 21.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	71	< 71 U
111-44-4	Bis-(2-Chloroethyl) Ether	71	< 71 U
95-57-8	2-Chlorophenol	71	< 71 U
541-73-1	1,3-Dichlorobenzene	71	< 71 U
106-46-7	**1,4-Dichlorobenzene**	**71**	**45 J**
100-51-6	Benzyl Alcohol	71	< 71 U
95-50-1	1,2-Dichlorobenzene	71	< 71 U
95-48-7	2-Methylphenol	71	< 71 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	71	< 71 U
106-44-5	4-Methylphenol	71	< 71 U
621-64-7	N-Nitroso-Di-N-Propylamine	360	< 360 U
67-72-1	Hexachloroethane	71	< 71 U
98-95-3	Nitrobenzene	71	< 71 U
78-59-1	Isophorone	71	< 71 U
88-75-5	2-Nitrophenol	360	< 360 U
105-67-9	2,4-Dimethylphenol	71	< 71 U
65-85-0	Benzoic Acid	710	< 710 U
111-91-1	bis(2-Chloroethoxy) Methane	71	< 71 U
120-83-2	2,4-Dichlorophenol	360	< 360 U
120-82-1	1,2,4-Trichlorobenzene	71	< 71 U
91-20-3	**Naphthalene**	**71**	**120**
106-47-8	4-Chloroaniline	360	< 360 U
87-68-3	Hexachlorobutadiene	71	< 71 U
59-50-7	4-Chloro-3-methylphenol	360	< 360 U
91-57-6	2-Methylnaphthalene	71	< 71 U
77-47-4	Hexachlorocyclopentadiene	360	< 360 U
88-06-2	2,4,6-Trichlorophenol	360	< 360 U
95-95-4	2,4,5-Trichlorophenol	360	< 360 U
91-58-7	2-Chloronaphthalene	71	< 71 U
88-74-4	2-Nitroaniline	360	< 360 U
131-11-3	Dimethylphthalate	71	< 71 U
208-96-8	**Acenaphthylene**	**71**	**150**
99-09-2	3-Nitroaniline	360	< 360 U
83-32-9	**Acenaphthene**	**71**	**180**
51-28-5	2,4-Dinitrophenol	710	< 710 U
100-02-7	4-Nitrophenol	360	< 360 U
132-64-9	**Dibenzofuran**	**71**	**76**
606-20-2	2,6-Dinitrotoluene	360	< 360 U
121-14-2	2,4-Dinitrotoluene	360	< 360 U
84-66-2	Diethylphthalate	71	< 71 U
7005-72-3	4-Chlorophenyl-phenylether	71	< 71 U
86-73-7	**Fluorene**	**71**	**140**
100-01-6	4-Nitroaniline	360	< 360 U
534-52-1	4,6-Dinitro-2-Methylphenol	710	< 710 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC57-0-2
DILUTION

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Date Analyzed: 03/16/10 03:39

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	71	< 71 U
101-55-3	4-Bromophenyl-phenylether	71	< 71 U
118-74-1	Hexachlorobenzene	71	< 71 U
87-86-5	Pentachlorophenol	360	< 360 U
85-01-8	**Phenanthrene**	**71**	**1,200**
86-74-8	**Carbazole**	**71**	**72**
120-12-7	**Anthracene**	**71**	**350**
84-74-2	Di-n-Butylphthalate	71	< 71 U
206-44-0	**Fluoranthene**	**71**	**1,900 Q**
129-00-0	**Pyrene**	**71**	**3,500**
85-68-7	Butylbenzylphthalate	71	< 71 U
91-94-1	3,3'-Dichlorobenzidine	360	< 360 U
56-55-3	**Benzo(a)anthracene**	**71**	**880**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**71**	**120**
218-01-9	**Chrysene**	**71**	**1,100**
117-84-0	Di-n-Octyl phthalate	71	< 71 U
205-99-2	**Benzo(b)fluoranthene**	**71**	**850**
207-08-9	**Benzo(k)fluoranthene**	**71**	**850**
50-32-8	**Benzo(a)pyrene**	**71**	**1,100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**71**	**210**
53-70-3	**Dibenz(a,h)anthracene**	**71**	**100**
191-24-2	**Benzo(g,h,i)perylene**	**71**	**190**
62-53-3	Aniline	71	< 71 U
90-12-0	1-Methylnaphthalene	71	< 71 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.2%	2-Fluorobiphenyl	72.7%
d14-p-Terphenyl	78.7%	d4-1,2-Dichlorobenzene	61.6%
d5-Phenol	79.7%	2-Fluorophenol	70.3%
2,4,6-Tribromophenol	74.2%	d4-2-Chlorophenol	67.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC57-2-4
SAMPLE

Lab Sample ID: QM30P
LIMS ID: 10-5186
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/15/10 23:45
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 20.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC57-2-4
SAMPLE

Lab Sample ID: QM30P
LIMS ID: 10-5186
Matrix: Sediment
Date Analyzed: 03/15/10 23:45

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	**Pyrene**	**19**	**15 J**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**17 J**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.4%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	91.2%	d4-1,2-Dichlorobenzene	60.8%
d5-Phenol	74.1%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	79.2%	d4-2-Chlorophenol	63.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-0-1.8
SAMPLE

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 21:48
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 9.76 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	51	< 51 U
111-44-4	Bis-(2-Chloroethyl) Ether	51	< 51 U
95-57-8	2-Chlorophenol	51	< 51 U
541-73-1	1,3-Dichlorobenzene	51	< 51 U
106-46-7	1,4-Dichlorobenzene	51	< 51 U
100-51-6	Benzyl Alcohol	51	< 51 U
95-50-1	1,2-Dichlorobenzene	51	< 51 U
95-48-7	2-Methylphenol	51	< 51 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	51	< 51 U
106-44-5	**4-Methylphenol**	**51**	**33 J**
621-64-7	N-Nitroso-Di-N-Propylamine	260	< 260 U
67-72-1	Hexachloroethane	51	< 51 U
98-95-3	Nitrobenzene	51	< 51 U
78-59-1	Isophorone	51	< 51 U
88-75-5	2-Nitrophenol	260	< 260 U
105-67-9	2,4-Dimethylphenol	51	< 51 U
65-85-0	Benzoic Acid	510	< 510 U
111-91-1	bis(2-Chloroethoxy) Methane	51	< 51 U
120-83-2	2,4-Dichlorophenol	260	< 260 U
120-82-1	1,2,4-Trichlorobenzene	51	< 51 U
91-20-3	**Naphthalene**	**51**	**76**
106-47-8	4-Chloroaniline	260	< 260 U
87-68-3	Hexachlorobutadiene	51	< 51 U
59-50-7	4-Chloro-3-methylphenol	260	< 260 U
91-57-6	**2-Methylnaphthalene**	**51**	**44 J**
77-47-4	Hexachlorocyclopentadiene	260	< 260 U
88-06-2	2,4,6-Trichlorophenol	260	< 260 U
95-95-4	2,4,5-Trichlorophenol	260	< 260 U
91-58-7	2-Chloronaphthalene	51	< 51 U
88-74-4	2-Nitroaniline	260	< 260 U
131-11-3	Dimethylphthalate	51	< 51 U
208-96-8	**Acenaphthylene**	**51**	**170**
99-09-2	3-Nitroaniline	260	< 260 U
83-32-9	**Acenaphthene**	**51**	**86**
51-28-5	2,4-Dinitrophenol	510	< 510 U
100-02-7	4-Nitrophenol	260	< 260 U
132-64-9	**Dibenzofuran**	**51**	**56**
606-20-2	2,6-Dinitrotoluene	260	< 260 U
121-14-2	2,4-Dinitrotoluene	260	< 260 U
84-66-2	Diethylphthalate	51	< 51 U
7005-72-3	4-Chlorophenyl-phenylether	51	< 51 U
86-73-7	**Fluorene**	**51**	**130**
100-01-6	4-Nitroaniline	260	< 260 U
534-52-1	4,6-Dinitro-2-Methylphenol	510	< 510 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-0-1.8
SAMPLE

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Date Analyzed: 03/12/10 21:48

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	51	< 51 U
101-55-3	4-Bromophenyl-phenylether	51	< 51 U
118-74-1	Hexachlorobenzene	51	< 51 U
87-86-5	Pentachlorophenol	260	< 260 U
85-01-8	**Phenanthrene**	**51**	**690**
86-74-8	**Carbazole**	**51**	**260**
120-12-7	**Anthracene**	**51**	**1,200**
84-74-2	Di-n-Butylphthalate	51	< 51 U
206-44-0	**Fluoranthene**	**51**	**1,400**
129-00-0	**Pyrene**	**51**	**7,200 ES**
85-68-7	Butylbenzylphthalate	51	< 51 U
91-94-1	3,3'-Dichlorobenzidine	260	< 260 U
56-55-3	**Benzo(a)anthracene**	**51**	**2,600**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**51**	**1,000**
218-01-9	**Chrysene**	**51**	**4,000**
117-84-0	Di-n-Octyl phthalate	51	< 51 U
205-99-2	**Benzo(b)fluoranthene**	**51**	**3,900**
207-08-9	**Benzo(k)fluoranthene**	**51**	**3,900**
50-32-8	**Benzo(a)pyrene**	**51**	**3,500**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**51**	**630**
53-70-3	**Dibenz(a,h)anthracene**	**51**	**330**
191-24-2	**Benzo(g,h,i)perylene**	**51**	**590**
62-53-3	Aniline	51	< 51 U
90-12-0	**1-Methylnaphthalene**	**51**	**31 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.4%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	100%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	81.6%	2-Fluorophenol	75.2%
2,4,6-Tribromophenol	102%	d4-2-Chlorophenol	69.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-0-1.8
DILUTION

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 02:32
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 9.76 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	150	< 150 U
111-44-4	Bis-(2-Chloroethyl) Ether	150	< 150 U
95-57-8	2-Chlorophenol	150	< 150 U
541-73-1	1,3-Dichlorobenzene	150	< 150 U
106-46-7	1,4-Dichlorobenzene	150	< 150 U
100-51-6	Benzyl Alcohol	150	< 150 U
95-50-1	1,2-Dichlorobenzene	150	< 150 U
95-48-7	2-Methylphenol	150	< 150 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	150	< 150 U
106-44-5	4-Methylphenol	150	< 150 U
621-64-7	N-Nitroso-Di-N-Propylamine	770	< 770 U
67-72-1	Hexachloroethane	150	< 150 U
98-95-3	Nitrobenzene	150	< 150 U
78-59-1	Isophorone	150	< 150 U
88-75-5	2-Nitrophenol	770	< 770 U
105-67-9	2,4-Dimethylphenol	150	< 150 U
65-85-0	Benzoic Acid	1,500	< 1,500 U
111-91-1	bis(2-Chloroethoxy) Methane	150	< 150 U
120-83-2	2,4-Dichlorophenol	770	< 770 U
120-82-1	1,2,4-Trichlorobenzene	150	< 150 U
91-20-3	**Naphthalene**	**150**	**78 J**
106-47-8	4-Chloroaniline	770	< 770 U
87-68-3	Hexachlorobutadiene	150	< 150 U
59-50-7	4-Chloro-3-methylphenol	770	< 770 U
91-57-6	2-Methylnaphthalene	150	< 150 U
77-47-4	Hexachlorocyclopentadiene	770	< 770 U
88-06-2	2,4,6-Trichlorophenol	770	< 770 U
95-95-4	2,4,5-Trichlorophenol	770	< 770 U
91-58-7	2-Chloronaphthalene	150	< 150 U
88-74-4	2-Nitroaniline	770	< 770 U
131-11-3	Dimethylphthalate	150	< 150 U
208-96-8	**Acenaphthylene**	**150**	**170**
99-09-2	3-Nitroaniline	770	< 770 U
83-32-9	**Acenaphthene**	**150**	**94 J**
51-28-5	2,4-Dinitrophenol	1,500	< 1,500 U
100-02-7	4-Nitrophenol	770	< 770 U
132-64-9	Dibenzofuran	150	< 150 U
606-20-2	2,6-Dinitrotoluene	770	< 770 U
121-14-2	2,4-Dinitrotoluene	770	< 770 U
84-66-2	Diethylphthalate	150	< 150 U
7005-72-3	4-Chlorophenyl-phenylether	150	< 150 U
86-73-7	**Fluorene**	**150**	**110 J**
100-01-6	4-Nitroaniline	770	< 770 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,500	< 1,500 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-0-1.8
DILUTION

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Date Analyzed: 03/16/10 02:32

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	150	< 150 U
101-55-3	4-Bromophenyl-phenylether	150	< 150 U
118-74-1	Hexachlorobenzene	150	< 150 U
87-86-5	Pentachlorophenol	770	< 770 U
85-01-8	**Phenanthrene**	**150**	**760**
86-74-8	**Carbazole**	**150**	**240**
120-12-7	**Anthracene**	**150**	**970**
84-74-2	Di-n-Butylphthalate	150	< 150 U
206-44-0	**Fluoranthene**	**150**	**1,400 Q**
129-00-0	**Pyrene**	**150**	**6,500**
85-68-7	Butylbenzylphthalate	150	< 150 U
91-94-1	3,3'-Dichlorobenzidine	770	< 770 U
56-55-3	**Benzo(a)anthracene**	**150**	**2,700**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**150**	**960**
218-01-9	**Chrysene**	**150**	**3,800**
117-84-0	Di-n-Octyl phthalate	150	< 150 U
205-99-2	**Benzo(b)fluoranthene**	**150**	**3,600**
207-08-9	**Benzo(k)fluoranthene**	**150**	**3,600**
50-32-8	**Benzo(a)pyrene**	**150**	**3,500**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**150**	**580**
53-70-3	**Dibenz(a,h)anthracene**	**150**	**320**
191-24-2	**Benzo(g,h,i)perylene**	**150**	**490**
62-53-3	Aniline	150	< 150 U
90-12-0	1-Methylnaphthalene	150	< 150 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.4%	2-Fluorobiphenyl	82.0%
d14-p-Terphenyl	77.9%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	81.6%	2-Fluorophenol	62.8%
2,4,6-Tribromophenol	86.4%	d4-2-Chlorophenol	68.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-1.8-4
SAMPLE

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 22:21
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	39	< 39 U
111-44-4	Bis-(2-Chloroethyl) Ether	39	< 39 U
95-57-8	2-Chlorophenol	39	< 39 U
541-73-1	1,3-Dichlorobenzene	39	< 39 U
106-46-7	1,4-Dichlorobenzene	39	< 39 U
100-51-6	Benzyl Alcohol	39	< 39 U
95-50-1	1,2-Dichlorobenzene	39	< 39 U
95-48-7	2-Methylphenol	39	< 39 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	39	< 39 U
106-44-5	4-Methylphenol	39	< 39 U
621-64-7	N-Nitroso-Di-N-Propylamine	190	< 190 U
67-72-1	Hexachloroethane	39	< 39 U
98-95-3	Nitrobenzene	39	< 39 U
78-59-1	Isophorone	39	< 39 U
88-75-5	2-Nitrophenol	190	< 190 U
105-67-9	2,4-Dimethylphenol	39	< 39 U
65-85-0	Benzoic Acid	390	< 390 U
111-91-1	bis(2-Chloroethoxy) Methane	39	< 39 U
120-83-2	2,4-Dichlorophenol	190	< 190 U
120-82-1	1,2,4-Trichlorobenzene	39	< 39 U
91-20-3	**Naphthalene**	**39**	**240**
106-47-8	4-Chloroaniline	190	< 190 U
87-68-3	Hexachlorobutadiene	39	< 39 U
59-50-7	4-Chloro-3-methylphenol	190	< 190 U
91-57-6	**2-Methylnaphthalene**	**39**	**44**
77-47-4	Hexachlorocyclopentadiene	190	< 190 U
88-06-2	2,4,6-Trichlorophenol	190	< 190 U
95-95-4	2,4,5-Trichlorophenol	190	< 190 U
91-58-7	2-Chloronaphthalene	39	< 39 U
88-74-4	2-Nitroaniline	190	< 190 U
131-11-3	Dimethylphthalate	39	< 39 U
208-96-8	**Acenaphthylene**	**39**	**41**
99-09-2	3-Nitroaniline	190	< 190 U
83-32-9	**Acenaphthene**	**39**	**1,000**
51-28-5	2,4-Dinitrophenol	390	< 390 U
100-02-7	4-Nitrophenol	190	< 190 U
132-64-9	**Dibenzofuran**	**39**	**500**
606-20-2	2,6-Dinitrotoluene	190	< 190 U
121-14-2	2,4-Dinitrotoluene	190	< 190 U
84-66-2	Diethylphthalate	39	< 39 U
7005-72-3	4-Chlorophenyl-phenylether	39	< 39 U
86-73-7	**Fluorene**	**39**	**930**
100-01-6	4-Nitroaniline	190	< 190 U
534-52-1	4,6-Dinitro-2-Methylphenol	390	< 390 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-1.8-4
SAMPLE

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Date Analyzed: 03/12/10 22:21

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	39	< 39 U
101-55-3	4-Bromophenyl-phenylether	39	< 39 U
118-74-1	Hexachlorobenzene	39	< 39 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**39**	**3,600 E**
86-74-8	Carbazole	39	< 39 U
120-12-7	**Anthracene**	**39**	**1,000**
84-74-2	Di-n-Butylphthalate	39	< 39 U
206-44-0	**Fluoranthene**	**39**	**6,100 ES**
129-00-0	**Pyrene**	**39**	**4,000 ES**
85-68-7	Butylbenzylphthalate	39	< 39 U
91-94-1	3,3'-Dichlorobenzidine	190	< 190 U
56-55-3	**Benzo(a)anthracene**	**39**	**1,200**
117-81-7	bis(2-Ethylhexyl)phthalate	39	< 39 U
218-01-9	**Chrysene**	**39**	**1,400**
117-84-0	Di-n-Octyl phthalate	39	< 39 U
205-99-2	**Benzo(b)fluoranthene**	**39**	**610**
207-08-9	**Benzo(k)fluoranthene**	**39**	**610**
50-32-8	**Benzo(a)pyrene**	**39**	**510**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**39**	**64**
53-70-3	**Dibenz(a,h)anthracene**	**39**	**25 J**
191-24-2	**Benzo(g,h,i)perylene**	**39**	**59**
62-53-3	Aniline	39	< 39 U
90-12-0	**1-Methylnaphthalene**	**39**	**36 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.2%	2-Fluorobiphenyl	70.0%
d14-p-Terphenyl	91.2%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	76.8%	2-Fluorophenol	70.7%
2,4,6-Tribromophenol	83.2%	d4-2-Chlorophenol	65.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-1.8-4
DILUTION

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 03:05
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 28.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	120	< 120 U
111-44-4	Bis-(2-Chloroethyl) Ether	120	< 120 U
95-57-8	2-Chlorophenol	120	< 120 U
541-73-1	1,3-Dichlorobenzene	120	< 120 U
106-46-7	1,4-Dichlorobenzene	120	< 120 U
100-51-6	Benzyl Alcohol	120	< 120 U
95-50-1	1,2-Dichlorobenzene	120	< 120 U
95-48-7	2-Methylphenol	120	< 120 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	120	< 120 U
106-44-5	4-Methylphenol	120	< 120 U
621-64-7	N-Nitroso-Di-N-Propylamine	580	< 580 U
67-72-1	Hexachloroethane	120	< 120 U
98-95-3	Nitrobenzene	120	< 120 U
78-59-1	Isophorone	120	< 120 U
88-75-5	2-Nitrophenol	580	< 580 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
111-91-1	bis(2-Chloroethoxy) Methane	120	< 120 U
120-83-2	2,4-Dichlorophenol	580	< 580 U
120-82-1	1,2,4-Trichlorobenzene	120	< 120 U
91-20-3	**Naphthalene**	**120**	**220**
106-47-8	4-Chloroaniline	580	< 580 U
87-68-3	Hexachlorobutadiene	120	< 120 U
59-50-7	4-Chloro-3-methylphenol	580	< 580 U
91-57-6	2-Methylnaphthalene	120	< 120 U
77-47-4	Hexachlorocyclopentadiene	580	< 580 U
88-06-2	2,4,6-Trichlorophenol	580	< 580 U
95-95-4	2,4,5-Trichlorophenol	580	< 580 U
91-58-7	2-Chloronaphthalene	120	< 120 U
88-74-4	2-Nitroaniline	580	< 580 U
131-11-3	Dimethylphthalate	120	< 120 U
208-96-8	Acenaphthylene	120	< 120 U
99-09-2	3-Nitroaniline	580	< 580 U
83-32-9	**Acenaphthene**	**120**	**910**
51-28-5	2,4-Dinitrophenol	1,200	< 1,200 U
100-02-7	4-Nitrophenol	580	< 580 U
132-64-9	**Dibenzofuran**	**120**	**460**
606-20-2	2,6-Dinitrotoluene	580	< 580 U
121-14-2	2,4-Dinitrotoluene	580	< 580 U
84-66-2	Diethylphthalate	120	< 120 U
7005-72-3	4-Chlorophenyl-phenylether	120	< 120 U
86-73-7	**Fluorene**	**120**	**940**
100-01-6	4-Nitroaniline	580	< 580 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,200	< 1,200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC58-1.8-4
DILUTION

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Date Analyzed: 03/16/10 03:05

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	120	< 120 U
101-55-3	4-Bromophenyl-phenylether	120	< 120 U
118-74-1	Hexachlorobenzene	120	< 120 U
87-86-5	Pentachlorophenol	580	< 580 U
85-01-8	**Phenanthrene**	**120**	**3,600**
86-74-8	Carbazole	120	< 120 U
120-12-7	**Anthracene**	**120**	**880**
84-74-2	Di-n-Butylphthalate	120	< 120 U
206-44-0	**Fluoranthene**	**120**	**6,400 Q**
129-00-0	**Pyrene**	**120**	**4,900**
85-68-7	Butylbenzylphthalate	120	< 120 U
91-94-1	3,3'-Dichlorobenzidine	580	< 580 U
56-55-3	**Benzo(a)anthracene**	**120**	**1,200**
117-81-7	bis(2-Ethylhexyl)phthalate	120	< 120 U
218-01-9	**Chrysene**	**120**	**1,100**
117-84-0	Di-n-Octyl phthalate	120	< 120 U
205-99-2	**Benzo(b)fluoranthene**	**120**	**420**
207-08-9	**Benzo(k)fluoranthene**	**120**	**420**
50-32-8	**Benzo(a)pyrene**	**120**	**400**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**120**	**74 J**
53-70-3	Dibenz(a,h)anthracene	120	< 120 U
191-24-2	**Benzo(g,h,i)perylene**	**120**	**73 J**
62-53-3	Aniline	120	< 120 U
90-12-0	1-Methylnaphthalene	120	< 120 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.1%	2-Fluorobiphenyl	75.4%
d14-p-Terphenyl	84.6%	d4-1,2-Dichlorobenzene	58.9%
d5-Phenol	70.6%	2-Fluorophenol	84.0%
2,4,6-Tribromophenol	78.4%	d4-2-Chlorophenol	60.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC59-0-2
SAMPLE

Lab Sample ID: QM30M
LIMS ID: 10-5183
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 22:55
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC59-0-2
SAMPLE

Lab Sample ID: QM30M
LIMS ID: 10-5183
Matrix: Sediment
Date Analyzed: 03/12/10 22:55

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	**Pyrene**	**20**	**12 J**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**13 J**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.8%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	57.6%
d5-Phenol	66.9%	2-Fluorophenol	65.9%
2,4,6-Tribromophenol	76.0%	d4-2-Chlorophenol	57.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC59-2-4
SAMPLE

Lab Sample ID: QM30N
LIMS ID: 10-5184
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/12/10 23:28
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC59-2-4
SAMPLE

Lab Sample ID: QM30N
LIMS ID: 10-5184
Matrix: Sediment
Date Analyzed: 03/12/10 23:28

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**13 J**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.0%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	86.4%	d4-1,2-Dichlorobenzene	60.8%
d5-Phenol	69.6%	2-Fluorophenol	72.5%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	62.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC60-0-0.8
SAMPLE

Lab Sample ID: QM30Q
LIMS ID: 10-5187
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 00:18
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 18.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 36.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	28	< 28 U
111-44-4	Bis-(2-Chloroethyl) Ether	28	< 28 U
95-57-8	2-Chlorophenol	28	< 28 U
541-73-1	1,3-Dichlorobenzene	28	< 28 U
106-46-7	**1,4-Dichlorobenzene**	**28**	**17 J**
100-51-6	Benzyl Alcohol	28	< 28 U
95-50-1	1,2-Dichlorobenzene	28	< 28 U
95-48-7	2-Methylphenol	28	< 28 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	28	< 28 U
106-44-5	4-Methylphenol	28	< 28 U
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	28	< 28 U
98-95-3	Nitrobenzene	28	< 28 U
78-59-1	Isophorone	28	< 28 U
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	28	< 28 U
65-85-0	Benzoic Acid	280	< 280 U
111-91-1	bis(2-Chloroethoxy) Methane	28	< 28 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	28	< 28 U
91-20-3	**Naphthalene**	**28**	**70**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	28	< 28 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**28**	**19 J**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	28	< 28 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	Dimethylphthalate	28	< 28 U
208-96-8	**Acenaphthylene**	**28**	**44**
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**28**	**57**
51-28-5	2,4-Dinitrophenol	280	< 280 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	**Dibenzofuran**	**28**	**38**
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	28	< 28 U
7005-72-3	4-Chlorophenyl-phenylether	28	< 28 U
86-73-7	**Fluorene**	**28**	**69**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	280	< 280 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC60-0-0.8
SAMPLE

Lab Sample ID: QM30Q
LIMS ID: 10-5187
Matrix: Sediment
Date Analyzed: 03/16/10 00:18

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	28	< 28 U
101-55-3	4-Bromophenyl-phenylether	28	< 28 U
118-74-1	Hexachlorobenzene	28	< 28 U
87-86-5	Pentachlorophenol	140	< 140 U
85-01-8	**Phenanthrene**	**28**	**340**
86-74-8	**Carbazole**	**28**	**57**
120-12-7	**Anthracene**	**28**	**220**
84-74-2	Di-n-Butylphthalate	28	< 28 U
206-44-0	**Fluoranthene**	**28**	**560 Q**
129-00-0	**Pyrene**	**28**	**2,200**
85-68-7	Butylbenzylphthalate	28	< 28 U
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**28**	**350**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**28**	**120**
218-01-9	**Chrysene**	**28**	**730**
117-84-0	Di-n-Octyl phthalate	28	< 28 U
205-99-2	**Benzo(b)fluoranthene**	**28**	**750**
207-08-9	**Benzo(k)fluoranthene**	**28**	**750**
50-32-8	**Benzo(a)pyrene**	**28**	**830**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**28**	**180**
53-70-3	**Dibenz(a,h)anthracene**	**28**	**100**
191-24-2	**Benzo(g,h,i)perylene**	**28**	**160**
62-53-3	Aniline	28	< 28 U
90-12-0	**1-Methylnaphthalene**	**28**	**16 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	54.0%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	74.4%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	69.3%	2-Fluorophenol	63.2%
2,4,6-Tribromophenol	72.0%	d4-2-Chlorophenol	58.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC60-0.8-3
SAMPLE

Lab Sample ID: QM30R
LIMS ID: 10-5188
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 00:52
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 33.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC60-0.8-3
SAMPLE

Lab Sample ID: QM30R
LIMS ID: 10-5188
Matrix: Sediment
Date Analyzed: 03/16/10 00:52

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**21**
86-74-8	Carbazole	19	< 19 U
120-12-7	**Anthracene**	**19**	**13 J**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**26 Q**
129-00-0	**Pyrene**	**19**	**93**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**22**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**29**
218-01-9	**Chrysene**	**19**	**31**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**28**
207-08-9	**Benzo(k)fluoranthene**	**19**	**28**
50-32-8	**Benzo(a)pyrene**	**19**	**36**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**13 J**
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**13 J**
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	84.8%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	81.1%	2-Fluorophenol	76.8%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	71.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC61-0-1
SAMPLE

Lab Sample ID: QM30S
LIMS ID: 10-5189
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 01:25
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 30.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**15 J**
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**19 J**
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	**Acenaphthene**	**20**	**18 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	**Dibenzofuran**	**20**	**10 J**
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**22**
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC61-0-1
SAMPLE

Lab Sample ID: QM30S
LIMS ID: 10-5189
Matrix: Sediment
Date Analyzed: 03/16/10 01:25

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	**Phenanthrene**	**20**	**160**
86-74-8	**Carbazole**	**20**	**21**
120-12-7	**Anthracene**	**20**	**60**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**340 Q**
129-00-0	**Pyrene**	**20**	**340**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	**Benzo(a)anthracene**	**20**	**140**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**69**
218-01-9	**Chrysene**	**20**	**210**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**190**
207-08-9	**Benzo(k)fluoranthene**	**20**	**190**
50-32-8	**Benzo(a)pyrene**	**20**	**210**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**64**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**33**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**59**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.6%	2-Fluorobiphenyl	89.6%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	60.8%
d5-Phenol	77.6%	2-Fluorophenol	85.6%
2,4,6-Tribromophenol	81.3%	d4-2-Chlorophenol	66.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC61-1-3
SAMPLE

Lab Sample ID: QM30T
LIMS ID: 10-5190
Matrix: Sediment
Data Release Authorized:
Reported: 03/30/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/16/10 01:59
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	**Acenaphthene**	**19**	**15 J**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**13 J**
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC61-1-3
SAMPLE

Lab Sample ID: QM30T
LIMS ID: 10-5190
Matrix: Sediment
Date Analyzed: 03/16/10 01:59

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	**Phenanthrene**	**19**	**95**
86-74-8	**Carbazole**	**19**	**15 J**
120-12-7	**Anthracene**	**19**	**26**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**98 Q**
129-00-0	**Pyrene**	**19**	**120**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	**Benzo(a)anthracene**	**19**	**42**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**21**
218-01-9	**Chrysene**	**19**	**46**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**33**
207-08-9	**Benzo(k)fluoranthene**	**19**	**33**
50-32-8	**Benzo(a)pyrene**	**19**	**48**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**17 J**
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**18 J**
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	86.0%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	78.1%	2-Fluorophenol	73.9%
2,4,6-Tribromophenol	76.8%	d4-2-Chlorophenol	67.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC63-0-2
SAMPLE

Lab Sample ID: QM57M
LIMS ID: 10-5425
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 11:41
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC63-0-2
SAMPLE

Lab Sample ID: QM57M
LIMS ID: 10-5425
Matrix: Sediment
Date Analyzed: 03/19/10 11:41

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**51 B**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.8%	2-Fluorobiphenyl	63.6%
d14-p-Terphenyl	77.6%	d4-1,2-Dichlorobenzene	51.6%
d5-Phenol	71.7%	2-Fluorophenol	58.4%
2,4,6-Tribromophenol	72.5%	d4-2-Chlorophenol	57.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC63-2-4
SAMPLE

Lab Sample ID: QM57N
LIMS ID: 10-5426
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 12:13
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC63-2-4
SAMPLE

Lab Sample ID: QM57N
LIMS ID: 10-5426
Matrix: Sediment
Date Analyzed: 03/19/10 12:13

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**25 B**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	48.0%	2-Fluorobiphenyl	54.0%
d14-p-Terphenyl	66.0%	d4-1,2-Dichlorobenzene	40.8%
d5-Phenol	60.0%	2-Fluorophenol	48.5%
2,4,6-Tribromophenol	61.6%	d4-2-Chlorophenol	49.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC201-0-2.5
SAMPLE

Lab Sample ID: QL86Q
LIMS ID: 10-4964
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 20:21
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 21.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 39.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	23	< 23 U
111-44-4	Bis-(2-Chloroethyl) Ether	23	< 23 U
95-57-8	2-Chlorophenol	23	< 23 U
541-73-1	1,3-Dichlorobenzene	23	< 23 U
106-46-7	**1,4-Dichlorobenzene**	**23**	**240**
100-51-6	Benzyl Alcohol	23	< 23 U
95-50-1	1,2-Dichlorobenzene	23	< 23 U
95-48-7	2-Methylphenol	23	< 23 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	23	< 23 U
106-44-5	**4-Methylphenol**	**23**	**45**
621-64-7	N-Nitroso-Di-N-Propylamine	120	< 120 U
67-72-1	Hexachloroethane	23	< 23 U
98-95-3	Nitrobenzene	23	< 23 U
78-59-1	Isophorone	23	< 23 U
88-75-5	2-Nitrophenol	120	< 120 U
105-67-9	2,4-Dimethylphenol	23	< 23 U
65-85-0	Benzoic Acid	230	< 230 U
111-91-1	bis(2-Chloroethoxy) Methane	23	< 23 U
120-83-2	2,4-Dichlorophenol	120	< 120 U
120-82-1	1,2,4-Trichlorobenzene	23	< 23 U
91-20-3	**Naphthalene**	**23**	**79**
106-47-8	4-Chloroaniline	120	< 120 U
87-68-3	Hexachlorobutadiene	23	< 23 U
59-50-7	4-Chloro-3-methylphenol	120	< 120 U
91-57-6	**2-Methylnaphthalene**	**23**	**44**
77-47-4	Hexachlorocyclopentadiene	120	< 120 U
88-06-2	2,4,6-Trichlorophenol	120	< 120 U
95-95-4	2,4,5-Trichlorophenol	120	< 120 U
91-58-7	2-Chloronaphthalene	23	< 23 U
88-74-4	2-Nitroaniline	120	< 120 U
131-11-3	Dimethylphthalate	23	< 23 U
208-96-8	**Acenaphthylene**	**23**	**25**
99-09-2	3-Nitroaniline	120	< 120 U
83-32-9	**Acenaphthene**	**23**	**26**
51-28-5	2,4-Dinitrophenol	230	< 230 U
100-02-7	4-Nitrophenol	120	< 120 U
132-64-9	**Dibenzofuran**	**23**	**25**
606-20-2	2,6-Dinitrotoluene	120	< 120 U
121-14-2	2,4-Dinitrotoluene	120	< 120 U
84-66-2	Diethylphthalate	23	< 23 U
7005-72-3	4-Chlorophenyl-phenylether	23	< 23 U
86-73-7	**Fluorene**	**23**	**34**
100-01-6	4-Nitroaniline	120	< 120 U
534-52-1	4,6-Dinitro-2-Methylphenol	230	< 230 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC201-0-2.5
SAMPLE

Lab Sample ID: QL86Q
LIMS ID: 10-4964
Matrix: Sediment
Date Analyzed: 03/10/10 20:21

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	23	< 23 U
101-55-3	4-Bromophenyl-phenylether	23	< 23 U
118-74-1	Hexachlorobenzene	23	< 23 U
87-86-5	Pentachlorophenol	120	< 120 U
85-01-8	**Phenanthrene**	**23**	**190**
86-74-8	**Carbazole**	**23**	**25**
120-12-7	**Anthracene**	**23**	**88**
84-74-2	Di-n-Butylphthalate	23	< 23 U
206-44-0	**Fluoranthene**	**23**	**280**
129-00-0	**Pyrene**	**23**	**850**
85-68-7	**Butylbenzylphthalate**	**23**	**41**
91-94-1	3,3'-Dichlorobenzidine	120	< 120 U
56-55-3	**Benzo(a)anthracene**	**23**	**180**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**23**	**1,100**
218-01-9	**Chrysene**	**23**	**270**
117-84-0	Di-n-Octyl phthalate	23	< 23 U
205-99-2	**Benzo(b)fluoranthene**	**23**	**450**
207-08-9	**Benzo(k)fluoranthene**	**23**	**450**
50-32-8	**Benzo(a)pyrene**	**23**	**370**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**23**	**83**
53-70-3	Dibenz(a,h)anthracene	23	< 23 U
191-24-2	**Benzo(g,h,i)perylene**	**23**	**86**
62-53-3	Aniline	23	< 23 U
90-12-0	**1-Methylnaphthalene**	**23**	**26**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.4%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	65.2%	d4-1,2-Dichlorobenzene	50.4%
d5-Phenol	58.9%	2-Fluorophenol	46.4%
2,4,6-Tribromophenol	62.1%	d4-2-Chlorophenol	47.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC201-2.5-4
SAMPLE

Lab Sample ID: QL86R
LIMS ID: 10-4965
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 20:55
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**33**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC201-2.5-4
SAMPLE

Lab Sample ID: QL86R
LIMS ID: 10-4965
Matrix: Sediment
Date Analyzed: 03/10/10 20:55

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	**Phenanthrene**	**20**	**18 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**8.7 J**
84-74-2	**Di-n-Butylphthalate**	**20**	**26**
206-44-0	**Fluoranthene**	**20**	**25**
129-00-0	**Pyrene**	**20**	**70**
85-68-7	**Butylbenzylphthalate**	**20**	**24**
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	**Benzo(a)anthracene**	**20**	**24**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**280**
218-01-9	**Chrysene**	**20**	**32**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**29**
207-08-9	**Benzo(k)fluoranthene**	**20**	**29**
50-32-8	**Benzo(a)pyrene**	**20**	**29**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**9.9 J**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.4%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	55.6%	d4-1,2-Dichlorobenzene	58.4%
d5-Phenol	63.7%	2-Fluorophenol	50.7%
2,4,6-Tribromophenol	66.9%	d4-2-Chlorophenol	58.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC202-0-2
SAMPLE

Lab Sample ID: QL86S
LIMS ID: 10-4966
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 21:28
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**16 J**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**10 J**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC202-0-2
SAMPLE

Lab Sample ID: QL86S
LIMS ID: 10-4966
Matrix: Sediment
Date Analyzed: 03/10/10 21:28

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**36**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**22**
84-74-2	**Di-n-Butylphthalate**	**20**	**23**
206-44-0	**Fluoranthene**	**20**	**140**
129-00-0	**Pyrene**	**20**	**250**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**68**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**230**
218-01-9	**Chrysene**	**20**	**84**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**98**
207-08-9	**Benzo(k)fluoranthene**	**20**	**98**
50-32-8	**Benzo(a)pyrene**	**20**	**100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**36**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**39**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.0%	2-Fluorobiphenyl	62.0%
d14-p-Terphenyl	64.4%	d4-1,2-Dichlorobenzene	50.8%
d5-Phenol	63.7%	2-Fluorophenol	58.1%
2,4,6-Tribromophenol	59.2%	d4-2-Chlorophenol	53.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC202-2-3.9
SAMPLE

Lab Sample ID: QL86T
LIMS ID: 10-4967
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/10/10 22:01
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC202-2-3.9
SAMPLE

Lab Sample ID: QL86T
LIMS ID: 10-4967
Matrix: Sediment
Date Analyzed: 03/10/10 22:01

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	**Di-n-Butylphthalate**	**20**	**13 J**
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**36**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.4%	2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	63.7%	2-Fluorophenol	59.5%
2,4,6-Tribromophenol	64.5%	d4-2-Chlorophenol	53.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC203-0-2
SAMPLE

Lab Sample ID: QM57S
LIMS ID: 10-5431
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 12:45
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**20**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**17 J**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**42**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**29**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**49**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**37**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**32**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**52**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC203-0-2
SAMPLE

Lab Sample ID: QM57S
LIMS ID: 10-5431
Matrix: Sediment
Date Analyzed: 03/19/10 12:45

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**280**
86-74-8	**Carbazole**	**20**	**60**
120-12-7	**Anthracene**	**20**	**160**
84-74-2	**Di-n-Butylphthalate**	**20**	**19 J**
206-44-0	**Fluoranthene**	**20**	**640**
129-00-0	**Pyrene**	**20**	**680**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**280**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**690 B**
218-01-9	**Chrysene**	**20**	**520**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**420**
207-08-9	**Benzo(k)fluoranthene**	**20**	**420**
50-32-8	**Benzo(a)pyrene**	**20**	**450**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**180**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**94**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**180**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**20**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	72.4%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	80.5%	2-Fluorophenol	64.8%
2,4,6-Tribromophenol	91.2%	d4-2-Chlorophenol	65.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC203-2-4.3
SAMPLE

Lab Sample ID: QM57T
LIMS ID: 10-5432
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 13:17
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 44.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	**1,4-Dichlorobenzene**	**19**	**11 J**
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	**4-Methylphenol**	**19**	**11 J**
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**48**
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	**2-Methylnaphthalene**	**19**	**19 J**
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**32**
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	**Acenaphthene**	**19**	**32**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	**Dibenzofuran**	**19**	**31**
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**41**
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC203-2-4.3
SAMPLE

Lab Sample ID: QM57T
LIMS ID: 10-5432
Matrix: Sediment
Date Analyzed: 03/19/10 13:17

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**180**
86-74-8	**Carbazole**	**19**	**38**
120-12-7	**Anthracene**	**19**	**100**
84-74-2	**Di-n-Butylphthalate**	**19**	**31**
206-44-0	**Fluoranthene**	**19**	**390**
129-00-0	**Pyrene**	**19**	**580**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**170**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**320 B**
218-01-9	**Chrysene**	**19**	**300**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**280**
207-08-9	**Benzo(k)fluoranthene**	**19**	**280**
50-32-8	**Benzo(a)pyrene**	**19**	**300**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**130**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**66**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**120**
62-53-3	Aniline	19	< 19 U
90-12-0	**1-Methylnaphthalene**	**19**	**16 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.0%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	80.8%	2-Fluorophenol	64.3%
2,4,6-Tribromophenol	88.0%	d4-2-Chlorophenol	66.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC204-0-2
SAMPLE

Lab Sample ID: QM57U
LIMS ID: 10-5433
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 13:50
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 15.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 49.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	32	< 32 U
111-44-4	Bis-(2-Chloroethyl) Ether	32	< 32 U
95-57-8	2-Chlorophenol	32	< 32 U
541-73-1	1,3-Dichlorobenzene	32	< 32 U
106-46-7	**1,4-Dichlorobenzene**	**32**	**38**
100-51-6	Benzyl Alcohol	32	< 32 U
95-50-1	1,2-Dichlorobenzene	32	< 32 U
95-48-7	2-Methylphenol	32	< 32 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	32	< 32 U
106-44-5	4-Methylphenol	32	< 32 U
621-64-7	N-Nitroso-Di-N-Propylamine	160	< 160 U
67-72-1	Hexachloroethane	32	< 32 U
98-95-3	Nitrobenzene	32	< 32 U
78-59-1	Isophorone	32	< 32 U
88-75-5	2-Nitrophenol	160	< 160 U
105-67-9	2,4-Dimethylphenol	32	< 32 U
65-85-0	Benzoic Acid	320	< 320 U
111-91-1	bis(2-Chloroethoxy) Methane	32	< 32 U
120-83-2	2,4-Dichlorophenol	160	< 160 U
120-82-1	1,2,4-Trichlorobenzene	32	< 32 U
91-20-3	**Naphthalene**	**32**	**780**
106-47-8	4-Chloroaniline	160	< 160 U
87-68-3	Hexachlorobutadiene	32	< 32 U
59-50-7	4-Chloro-3-methylphenol	160	< 160 U
91-57-6	**2-Methylnaphthalene**	**32**	**770**
77-47-4	Hexachlorocyclopentadiene	160	< 160 U
88-06-2	2,4,6-Trichlorophenol	160	< 160 U
95-95-4	2,4,5-Trichlorophenol	160	< 160 U
91-58-7	2-Chloronaphthalene	32	< 32 U
88-74-4	2-Nitroaniline	160	< 160 U
131-11-3	Dimethylphthalate	32	< 32 U
208-96-8	Acenaphthylene	32	< 32 U
99-09-2	3-Nitroaniline	160	< 160 U
83-32-9	**Acenaphthene**	**32**	**940**
51-28-5	2,4-Dinitrophenol	320	< 320 U
100-02-7	4-Nitrophenol	160	< 160 U
132-64-9	**Dibenzofuran**	**32**	**610**
606-20-2	2,6-Dinitrotoluene	160	< 160 U
121-14-2	2,4-Dinitrotoluene	160	< 160 U
84-66-2	Diethylphthalate	32	< 32 U
7005-72-3	4-Chlorophenyl-phenylether	32	< 32 U
86-73-7	**Fluorene**	**32**	**1,000**
100-01-6	4-Nitroaniline	160	< 160 U
534-52-1	4,6-Dinitro-2-Methylphenol	320	< 320 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC204-0-2
SAMPLE

Lab Sample ID: QM57U
LIMS ID: 10-5433
Matrix: Sediment
Date Analyzed: 03/19/10 13:50

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	32	< 32 U
101-55-3	4-Bromophenyl-phenylether	32	< 32 U
118-74-1	Hexachlorobenzene	32	< 32 U
87-86-5	Pentachlorophenol	160	< 160 U
85-01-8	**Phenanthrene**	**32**	**2,300**
86-74-8	Carbazole	32	< 32 U
120-12-7	**Anthracene**	**32**	**420**
84-74-2	Di-n-Butylphthalate	32	< 32 U
206-44-0	**Fluoranthene**	**32**	**2,500**
129-00-0	**Pyrene**	**32**	**1,600**
85-68-7	Butylbenzylphthalate	32	< 32 U
91-94-1	3,3'-Dichlorobenzidine	160	< 160 U
56-55-3	**Benzo(a)anthracene**	**32**	**400**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**32**	**1,500 B**
218-01-9	**Chrysene**	**32**	**760**
117-84-0	Di-n-Octyl phthalate	32	< 32 U
205-99-2	**Benzo(b)fluoranthene**	**32**	**310**
207-08-9	**Benzo(k)fluoranthene**	**32**	**310**
50-32-8	**Benzo(a)pyrene**	**32**	**350**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**32**	**96**
53-70-3	**Dibenz(a,h)anthracene**	**32**	**45**
191-24-2	**Benzo(g,h,i)perylene**	**32**	**100**
62-53-3	Aniline	32	< 32 U
90-12-0	**1-Methylnaphthalene**	**32**	**670**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	64.8%
d14-p-Terphenyl	75.2%	d4-1,2-Dichlorobenzene	50.0%
d5-Phenol	70.1%	2-Fluorophenol	55.5%
2,4,6-Tribromophenol	96.3%	d4-2-Chlorophenol	56.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC204-2-4
SAMPLE

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 14:22
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 51.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	39	< 39 U
111-44-4	Bis-(2-Chloroethyl) Ether	39	< 39 U
95-57-8	2-Chlorophenol	39	< 39 U
541-73-1	1,3-Dichlorobenzene	39	< 39 U
106-46-7	**1,4-Dichlorobenzene**	**39**	**60**
100-51-6	Benzyl Alcohol	39	< 39 U
95-50-1	1,2-Dichlorobenzene	39	< 39 U
95-48-7	2-Methylphenol	39	< 39 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	39	< 39 U
106-44-5	4-Methylphenol	39	< 39 U
621-64-7	N-Nitroso-Di-N-Propylamine	190	< 190 U
67-72-1	Hexachloroethane	39	< 39 U
98-95-3	Nitrobenzene	39	< 39 U
78-59-1	Isophorone	39	< 39 U
88-75-5	2-Nitrophenol	190	< 190 U
105-67-9	2,4-Dimethylphenol	39	< 39 U
65-85-0	Benzoic Acid	390	< 390 U
111-91-1	bis(2-Chloroethoxy) Methane	39	< 39 U
120-83-2	2,4-Dichlorophenol	190	< 190 U
120-82-1	1,2,4-Trichlorobenzene	39	< 39 U
91-20-3	**Naphthalene**	**39**	**420**
106-47-8	4-Chloroaniline	190	< 190 U
87-68-3	Hexachlorobutadiene	39	< 39 U
59-50-7	4-Chloro-3-methylphenol	190	< 190 U
91-57-6	**2-Methylnaphthalene**	**39**	**340**
77-47-4	Hexachlorocyclopentadiene	190	< 190 U
88-06-2	2,4,6-Trichlorophenol	190	< 190 U
95-95-4	2,4,5-Trichlorophenol	190	< 190 U
91-58-7	2-Chloronaphthalene	39	< 39 U
88-74-4	2-Nitroaniline	190	< 190 U
131-11-3	Dimethylphthalate	39	< 39 U
208-96-8	Acenaphthylene	39	< 39 U
99-09-2	3-Nitroaniline	190	< 190 U
83-32-9	**Acenaphthene**	**39**	**1,300**
51-28-5	2,4-Dinitrophenol	390	< 390 U
100-02-7	4-Nitrophenol	190	< 190 U
132-64-9	**Dibenzofuran**	**39**	**710**
606-20-2	2,6-Dinitrotoluene	190	< 190 U
121-14-2	2,4-Dinitrotoluene	190	< 190 U
84-66-2	Diethylphthalate	39	< 39 U
7005-72-3	4-Chlorophenyl-phenylether	39	< 39 U
86-73-7	**Fluorene**	**39**	**1,500**
100-01-6	4-Nitroaniline	190	< 190 U
534-52-1	4,6-Dinitro-2-Methylphenol	390	< 390 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC204-2-4
SAMPLE

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Date Analyzed: 03/19/10 14:22

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	39	< 39 U
101-55-3	4-Bromophenyl-phenylether	39	< 39 U
118-74-1	Hexachlorobenzene	39	< 39 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**39**	**4,400 ES**
86-74-8	**Carbazole**	**39**	**88**
120-12-7	**Anthracene**	**39**	**1,500**
84-74-2	Di-n-Butylphthalate	39	< 39 U
206-44-0	**Fluoranthene**	**39**	**3,400 ES**
129-00-0	**Pyrene**	**39**	**3,600 ES**
85-68-7	Butylbenzylphthalate	39	< 39 U
91-94-1	3,3'-Dichlorobenzidine	190	< 190 U
56-55-3	**Benzo(a)anthracene**	**39**	**950**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**39**	**770 B**
218-01-9	**Chrysene**	**39**	**2,000**
117-84-0	Di-n-Octyl phthalate	39	< 39 U
205-99-2	**Benzo(b)fluoranthene**	**39**	**840**
207-08-9	**Benzo(k)fluoranthene**	**39**	**840**
50-32-8	**Benzo(a)pyrene**	**39**	**830**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**39**	**350**
53-70-3	**Dibenz(a,h)anthracene**	**39**	**160**
191-24-2	**Benzo(g,h,i)perylene**	**39**	**370**
62-53-3	Aniline	39	< 39 U
90-12-0	**1-Methylnaphthalene**	**39**	**380**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	73.2%	2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	95.2%	d4-1,2-Dichlorobenzene	37.9%
d5-Phenol	52.0%	2-Fluorophenol	36.3%
2,4,6-Tribromophenol	112%	d4-2-Chlorophenol	42.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC204-2-4
DILUTION

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 15:59
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 51.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	120	< 120 U
111-44-4	Bis-(2-Chloroethyl) Ether	120	< 120 U
95-57-8	2-Chlorophenol	120	< 120 U
541-73-1	1,3-Dichlorobenzene	120	< 120 U
106-46-7	**1,4-Dichlorobenzene**	**120**	**82 J**
100-51-6	Benzyl Alcohol	120	< 120 U
95-50-1	1,2-Dichlorobenzene	120	< 120 U
95-48-7	2-Methylphenol	120	< 120 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	120	< 120 U
106-44-5	4-Methylphenol	120	< 120 U
621-64-7	N-Nitroso-Di-N-Propylamine	580	< 580 U
67-72-1	Hexachloroethane	120	< 120 U
98-95-3	Nitrobenzene	120	< 120 U
78-59-1	Isophorone	120	< 120 U
88-75-5	2-Nitrophenol	580	< 580 U
105-67-9	2,4-Dimethylphenol	120	< 120 U
65-85-0	Benzoic Acid	1,200	< 1,200 U
111-91-1	bis(2-Chloroethoxy) Methane	120	< 120 U
120-83-2	2,4-Dichlorophenol	580	< 580 U
120-82-1	1,2,4-Trichlorobenzene	120	< 120 U
91-20-3	**Naphthalene**	**120**	**450**
106-47-8	4-Chloroaniline	580	< 580 U
87-68-3	Hexachlorobutadiene	120	< 120 U
59-50-7	4-Chloro-3-methylphenol	580	< 580 U
91-57-6	**2-Methylnaphthalene**	**120**	**360**
77-47-4	Hexachlorocyclopentadiene	580	< 580 U
88-06-2	2,4,6-Trichlorophenol	580	< 580 U
95-95-4	2,4,5-Trichlorophenol	580	< 580 U
91-58-7	2-Chloronaphthalene	120	< 120 U
88-74-4	2-Nitroaniline	580	< 580 U
131-11-3	Dimethylphthalate	120	< 120 U
208-96-8	Acenaphthylene	120	< 120 U
99-09-2	3-Nitroaniline	580	< 580 U
83-32-9	**Acenaphthene**	**120**	**1,400**
51-28-5	2,4-Dinitrophenol	1,200	< 1,200 U
100-02-7	4-Nitrophenol	580	< 580 U
132-64-9	**Dibenzofuran**	**120**	**740**
606-20-2	2,6-Dinitrotoluene	580	< 580 U
121-14-2	2,4-Dinitrotoluene	580	< 580 U
84-66-2	Diethylphthalate	120	< 120 U
7005-72-3	4-Chlorophenyl-phenylether	120	< 120 U
86-73-7	**Fluorene**	**120**	**1,700**
100-01-6	4-Nitroaniline	580	< 580 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,200	< 1,200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC204-2-4
DILUTION

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Date Analyzed: 03/19/10 15:59

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	120	< 120 U
101-55-3	4-Bromophenyl-phenylether	120	< 120 U
118-74-1	Hexachlorobenzene	120	< 120 U
87-86-5	Pentachlorophenol	580	< 580 U
85-01-8	**Phenanthrene**	**120**	**4,700**
86-74-8	**Carbazole**	**120**	**120 J**
120-12-7	**Anthracene**	**120**	**1,600**
84-74-2	Di-n-Butylphthalate	120	< 120 U
206-44-0	**Fluoranthene**	**120**	**5,000**
129-00-0	**Pyrene**	**120**	**3,500**
85-68-7	Butylbenzylphthalate	120	< 120 U
91-94-1	3,3'-Dichlorobenzidine	580	< 580 U
56-55-3	**Benzo(a)anthracene**	**120**	**960**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**120**	**680 B**
218-01-9	**Chrysene**	**120**	**2,000**
117-84-0	Di-n-Octyl phthalate	120	< 120 U
205-99-2	**Benzo(b)fluoranthene**	**120**	**990**
207-08-9	**Benzo(k)fluoranthene**	**120**	**990**
50-32-8	**Benzo(a)pyrene**	**120**	**900**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**120**	**280**
53-70-3	**Dibenz(a,h)anthracene**	**120**	**140**
191-24-2	**Benzo(g,h,i)perylene**	**120**	**290**
62-53-3	Aniline	120	< 120 U
90-12-0	**1-Methylnaphthalene**	**120**	**390**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	101%	2-Fluorobiphenyl	72.7%
d14-p-Terphenyl	80.2%	d4-1,2-Dichlorobenzene	53.3%
d5-Phenol	69.8%	2-Fluorophenol	50.5%
2,4,6-Tribromophenol	92.8%	d4-2-Chlorophenol	57.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC03-0-2**
 SAMPLE

Lab Sample ID: QL56A
LIMS ID: 10-4777
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 14:19
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 35.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**56**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**22**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	9.0	< 9.0 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.0%	d5-Phenol	61.9%
2-Fluorophenol	52.3%	d4-2-Chlorophenol	52.3%
d4-1,2-Dichlorobenzene	58.4%	d5-Nitrobenzene	58.0%
2,4,6-Tribromophenol	89.3%	d14-p-Terphenyl	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC03-2-4**
 SAMPLE

Lab Sample ID: QL56B
LIMS ID: 10-4778
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 14:52
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 12.8%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.0%	d5-Phenol	58.4%
2-Fluorophenol	50.9%	d4-2-Chlorophenol	49.6%
d4-1,2-Dichlorobenzene	58.8%	d5-Nitrobenzene	54.4%
2,4,6-Tribromophenol	78.7%	d14-p-Terphenyl	81.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC04-0-2**
 SAMPLE

Lab Sample ID: QL56C
LIMS ID: 10-4779
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 15:24
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**44**
106-46-7	**1,4-Dichlorobenzene**	**5.9**	**25**
120-82-1	**1,2,4-Trichlorobenzene**	**5.9**	**7.7**
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**39**
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	13	< 13 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	71.6%	d5-Phenol	61.1%
2-Fluorophenol	49.9%	d4-2-Chlorophenol	51.5%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	53.2%
2,4,6-Tribromophenol	90.9%	d14-p-Terphenyl	94.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC04-2-4**
 SAMPLE

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 15:57
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.8**	**9.9**
106-46-7	1,4-Dichlorobenzene	5.8	< 5.8 U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	5.8	< 5.8 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.8%	d5-Phenol	56.8%
2-Fluorophenol	48.8%	d4-2-Chlorophenol	48.8%
d4-1,2-Dichlorobenzene	56.0%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	86.4%	d14-p-Terphenyl	78.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC05-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL56E
LIMS ID: 10-4781
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 17:34
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**20**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	54.4%
2-Fluorophenol	48.5%	d4-2-Chlorophenol	47.7%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	52.8%
2,4,6-Tribromophenol	88.5%	d14-p-Terphenyl	77.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC05-2-4**
 SAMPLE

Lab Sample ID: QL56F
LIMS ID: 10-4782
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 18:07
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 18.4%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	60.8%	d5-Phenol	50.7%
2-Fluorophenol	45.3%	d4-2-Chlorophenol	51.2%
d4-1,2-Dichlorobenzene	53.2%	d5-Nitrobenzene	48.8%
2,4,6-Tribromophenol	89.6%	d14-p-Terphenyl	77.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC06-0-2**
 SAMPLE

Lab Sample ID: QL56G
LIMS ID: 10-4783
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 18:39
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 52.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**60**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**12**
120-82-1	**1,2,4-Trichlorobenzene**	**6.1**	**15**
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	**Dimethylphthalate**	**15**	**16**
85-68-7	**Butylbenzylphthalate**	**15**	**63**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	7.3	< 7.3 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.0%	d5-Phenol	61.1%
2-Fluorophenol	50.7%	d4-2-Chlorophenol	51.7%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	58.8%
2,4,6-Tribromophenol	80.8%	d14-p-Terphenyl	111%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC06-0-2**
 DILUTION

Lab Sample ID: QL56G
LIMS ID: 10-4783
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 15:56
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 52.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**58**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**84**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	72.0%	d5-Phenol	62.4%
2-Fluorophenol	51.2%	d4-2-Chlorophenol	50.4%
d4-1,2-Dichlorobenzene	58.8%	d5-Nitrobenzene	57.6%
2,4,6-Tribromophenol	84.8%	d14-p-Terphenyl	85.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC06-2-4**
 SAMPLE

Lab Sample ID: QL56H
LIMS ID: 10-4784
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 19:12
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**61**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	62.4%	d5-Phenol	63.5%
2-Fluorophenol	52.0%	d4-2-Chlorophenol	53.3%
d4-1,2-Dichlorobenzene	61.6%	d5-Nitrobenzene	59.2%
2,4,6-Tribromophenol	79.7%	d14-p-Terphenyl	134%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC06-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QL56H
LIMS ID: 10-4784
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 16:29
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**48**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	78.0%	d5-Phenol	68.0%
2-Fluorophenol	56.8%	d4-2-Chlorophenol	59.2%
d4-1,2-Dichlorobenzene	67.2%	d5-Nitrobenzene	66.0%
2,4,6-Tribromophenol	83.2%	d14-p-Terphenyl	94.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC07B-0.0-2.3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30A
LIMS ID: 10-5171
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 13:46
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 30.4%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**24**
106-46-7	1,4-Dichlorobenzene	6.2	< 6.2 U
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**25**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	71.2%	d5-Phenol	66.4%
2-Fluorophenol	53.9%	d4-2-Chlorophenol	54.1%
d4-1,2-Dichlorobenzene	61.6%	d5-Nitrobenzene	69.2%
2,4,6-Tribromophenol	55.2%	d14-p-Terphenyl	83.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC07B-2.3-4**
 SAMPLE

Lab Sample ID: QM30B
LIMS ID: 10-5172
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 14:19
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 23.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	58.9%
2-Fluorophenol	48.5%	d4-2-Chlorophenol	48.0%
d4-1,2-Dichlorobenzene	56.0%	d5-Nitrobenzene	64.0%
2,4,6-Tribromophenol	55.5%	d14-p-Terphenyl	80.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC08-0-2**
 SAMPLE

Lab Sample ID: QL56I
LIMS ID: 10-4785
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 19:44
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 50.4%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**57**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**16**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**55**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.6	< 6.6 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	60.8%	d5-Phenol	52.8%
2-Fluorophenol	44.3%	d4-2-Chlorophenol	45.6%
d4-1,2-Dichlorobenzene	50.8%	d5-Nitrobenzene	51.2%
2,4,6-Tribromophenol	75.2%	d14-p-Terphenyl	78.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC08-2-4**
 SAMPLE

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 20:17
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 53.4%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**45**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**15**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**66**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	21	< 21 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	**Pentachlorophenol**	**30**	**52**
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	70.0%	d5-Phenol	48.8%
2-Fluorophenol	41.6%	d4-2-Chlorophenol	46.9%
d4-1,2-Dichlorobenzene	59.2%	d5-Nitrobenzene	40.0%
2,4,6-Tribromophenol	87.7%	d14-p-Terphenyl	119%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC08-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 17:01
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 53.4%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**29**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**60**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 Y
100-51-6	Benzyl Alcohol	91	< 91 U
87-86-5	Pentachlorophenol	91	< 91 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	91	< 91 U
62-75-9	N-Nitrosodimethylamine	91	< 91 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	57.6%
2-Fluorophenol	41.6%	d4-2-Chlorophenol	43.2%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	46.8%
2,4,6-Tribromophenol	74.4%	d14-p-Terphenyl	74.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS

Sample ID: EW10-SC10-0-2.4
SAMPLE

Lab Sample ID: QM30C
LIMS ID: 10-5173
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 14:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 40.1%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**32**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**12**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**33**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	70.0%	d5-Phenol	63.5%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	52.3%
d4-1,2-Dichlorobenzene	55.2%	d5-Nitrobenzene	64.0%
2,4,6-Tribromophenol	60.0%	d14-p-Terphenyl	84.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC10-2.4-4**
 SAMPLE

Lab Sample ID: QM30D
LIMS ID: 10-5174
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 15:26
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**28**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.6%	d5-Phenol	62.7%
2-Fluorophenol	48.8%	d4-2-Chlorophenol	50.7%
d4-1,2-Dichlorobenzene	54.4%	d5-Nitrobenzene	63.6%
2,4,6-Tribromophenol	56.8%	d14-p-Terphenyl	83.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC11-0-2**
 SAMPLE

Lab Sample ID: QL56K
LIMS ID: 10-4787
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 20:49
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 43.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**42**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**18**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	**Dimethylphthalate**	**15**	**16**
85-68-7	**Butylbenzylphthalate**	**15**	**58**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.7	< 6.7 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.8%	d5-Phenol	59.5%
2-Fluorophenol	53.1%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	57.6%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	93.6%	d14-p-Terphenyl	86.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC11-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL56L
LIMS ID: 10-4788
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 21:21
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 49.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**44**
106-46-7	**1,4-Dichlorobenzene**	**6.2**	**13**
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**62**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	10	< 10 Y
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	61.6%	d5-Phenol	46.9%
2-Fluorophenol	39.2%	d4-2-Chlorophenol	41.9%
d4-1,2-Dichlorobenzene	51.2%	d5-Nitrobenzene	38.8%
2,4,6-Tribromophenol	77.9%	d14-p-Terphenyl	130%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC11-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QL56L
LIMS ID: 10-4788
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 17:34
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 49.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**32**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**56**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	61.2%	d5-Phenol	52.0%
2-Fluorophenol	40.0%	d4-2-Chlorophenol	40.8%
d4-1,2-Dichlorobenzene	52.8%	d5-Nitrobenzene	45.6%
2,4,6-Tribromophenol	67.2%	d14-p-Terphenyl	73.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC12-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30E
LIMS ID: 10-5175
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 16:00
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**37**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**22**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	**Dimethylphthalate**	**15**	**15**
85-68-7	**Butylbenzylphthalate**	**15**	**49**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.0%	d5-Phenol	65.1%
2-Fluorophenol	50.9%	d4-2-Chlorophenol	53.3%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	61.2%
2,4,6-Tribromophenol	55.7%	d14-p-Terphenyl	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC12-0-2**
 DILUTION

Lab Sample ID: QM30E
LIMS ID: 10-5175
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 16:38
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**46**
106-46-7	**1,4-Dichlorobenzene**	**18**	**22**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.4%	d5-Phenol	59.2%
2-Fluorophenol	44.0%	d4-2-Chlorophenol	61.6%
d4-1,2-Dichlorobenzene	54.0%	d5-Nitrobenzene	56.4%
2,4,6-Tribromophenol	44.0%	d14-p-Terphenyl	80.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC12-2-3.1**
 SAMPLE

Lab Sample ID: QM30F
LIMS ID: 10-5176
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 16:33
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 42.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**51**
106-46-7	**1,4-Dichlorobenzene**	**6.2**	**19**
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	16	< 16 U
85-68-7	**Butylbenzylphthalate**	**16**	**63**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	22	< 22 Y
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	35	< 35 Y
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	75.6%	d5-Phenol	62.7%
2-Fluorophenol	50.7%	d4-2-Chlorophenol	56.8%
d4-1,2-Dichlorobenzene	79.2%	d5-Nitrobenzene	63.2%
2,4,6-Tribromophenol	63.7%	d14-p-Terphenyl	139%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC12-2-3.1**
 DILUTION

Lab Sample ID: QM30F
LIMS ID: 10-5176
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 17:11
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 42.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**19**	**45**
106-46-7	1,4-Dichlorobenzene	19	< 19 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-68-3	Hexachlorobutadiene	19	< 19 U
131-11-3	Dimethylphthalate	47	< 47 U
85-68-7	**Butylbenzylphthalate**	**47**	**47**
95-48-7	2-Methylphenol	19	< 19 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	43	< 43 Y
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	57.6%
2-Fluorophenol	43.2%	d4-2-Chlorophenol	60.8%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	52.0%	d14-p-Terphenyl	84.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC13-0-1.6**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80C
LIMS ID: 10-5593
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 21:30
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 50.1%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**28**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**22**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**37**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	61.6%	d5-Phenol	55.7%
2-Fluorophenol	44.3%	d4-2-Chlorophenol	47.5%
d4-1,2-Dichlorobenzene	47.6%	d5-Nitrobenzene	53.6%
2,4,6-Tribromophenol	51.5%	d14-p-Terphenyl	70.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC13-1.6-4**
 SAMPLE

Lab Sample ID: QM80D
LIMS ID: 10-5594
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 22:02
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 8.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.2%	d5-Phenol	49.3%
2-Fluorophenol	20.8%	d4-2-Chlorophenol	32.0%
d4-1,2-Dichlorobenzene	53.6%	d5-Nitrobenzene	58.0%
2,4,6-Tribromophenol	28.0%	d14-p-Terphenyl	73.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC15-0-2.3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30G
LIMS ID: 10-5177
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 17:07
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 41.4%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**30**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**18**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**32**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.2%	d5-Phenol	63.5%
2-Fluorophenol	50.9%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	55.6%	d5-Nitrobenzene	57.6%
2,4,6-Tribromophenol	55.2%	d14-p-Terphenyl	88.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC15-2.3-4**
 SAMPLE

Lab Sample ID: QM30H
LIMS ID: 10-5178
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 17:40
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.3%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.4%	d5-Phenol	61.9%
2-Fluorophenol	51.2%	d4-2-Chlorophenol	51.5%
d4-1,2-Dichlorobenzene	57.6%	d5-Nitrobenzene	65.2%
2,4,6-Tribromophenol	59.5%	d14-p-Terphenyl	84.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC18-0-2**
 SAMPLE

Lab Sample ID: QM30I
LIMS ID: 10-5179
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 18:13
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 40.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**46**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**27**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**35**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	**2,4-Dimethylphenol**	**6.1**	**9.7**
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.6%	d5-Phenol	63.7%
2-Fluorophenol	51.2%	d4-2-Chlorophenol	52.3%
d4-1,2-Dichlorobenzene	56.8%	d5-Nitrobenzene	64.0%
2,4,6-Tribromophenol	59.5%	d14-p-Terphenyl	86.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC18-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30J
LIMS ID: 10-5180
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 19:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**20**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**19**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**25**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.2%	d5-Phenol	61.6%
2-Fluorophenol	50.7%	d4-2-Chlorophenol	50.9%
d4-1,2-Dichlorobenzene	57.2%	d5-Nitrobenzene	62.0%
2,4,6-Tribromophenol	59.5%	d14-p-Terphenyl	91.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC19-0-2.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86A
LIMS ID: 10-4948
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/11/10 20:43
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**28**
106-46-7	**1,4-Dichlorobenzene**	**6.2**	**170**
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**72**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.4%	d5-Phenol	60.0%
2-Fluorophenol	46.4%	d4-2-Chlorophenol	48.5%
d4-1,2-Dichlorobenzene	52.8%	d5-Nitrobenzene	59.2%
2,4,6-Tribromophenol	60.5%	d14-p-Terphenyl	91.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC19-0-2.5**
Page 1 of 1 **DILUTION**

Lab Sample ID: QL86A
LIMS ID: 10-4948
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 22:00
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**37**
106-46-7	**1,4-Dichlorobenzene**	**18**	**180**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**93**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.6%	d5-Phenol	52.8%
2-Fluorophenol	47.2%	d4-2-Chlorophenol	46.4%
d4-1,2-Dichlorobenzene	52.8%	d5-Nitrobenzene	52.8%
2,4,6-Tribromophenol	50.4%	d14-p-Terphenyl	91.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC19-2.5-4**
 SAMPLE

Lab Sample ID: QL86B
LIMS ID: 10-4949
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/11/10 21:16
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 23.3%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**7.9**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.2%	d5-Phenol	58.4%
2-Fluorophenol	47.5%	d4-2-Chlorophenol	48.3%
d4-1,2-Dichlorobenzene	55.2%	d5-Nitrobenzene	58.0%
2,4,6-Tribromophenol	56.0%	d14-p-Terphenyl	78.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC20-0.4-2.4**
 SAMPLE

Lab Sample ID: QL86C
LIMS ID: 10-4950
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/11/10 21:49
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**13**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	60.4%	d5-Phenol	54.7%
2-Fluorophenol	44.5%	d4-2-Chlorophenol	45.1%
d4-1,2-Dichlorobenzene	48.4%	d5-Nitrobenzene	51.2%
2,4,6-Tribromophenol	53.9%	d14-p-Terphenyl	70.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC20-2.4-4.4**
 SAMPLE

Lab Sample ID: QL86D
LIMS ID: 10-4951
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/11/10 23:28
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.6%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	62.8%	d5-Phenol	54.9%
2-Fluorophenol	46.9%	d4-2-Chlorophenol	46.7%
d4-1,2-Dichlorobenzene	54.0%	d5-Nitrobenzene	55.2%
2,4,6-Tribromophenol	56.5%	d14-p-Terphenyl	83.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC21-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86E
LIMS ID: 10-4952
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 00:01
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 45.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**34**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**310**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**60**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	12	< 12 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.0%	d5-Phenol	56.0%
2-Fluorophenol	44.8%	d4-2-Chlorophenol	46.1%
d4-1,2-Dichlorobenzene	52.8%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	53.6%	d14-p-Terphenyl	94.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC21-0-2**
 DILUTION

Lab Sample ID: QL86E
LIMS ID: 10-4952
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 22:33
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 45.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**38**
106-46-7	**1,4-Dichlorobenzene**	**18**	**310**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**77**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	60.0%	d5-Phenol	52.8%
2-Fluorophenol	46.4%	d4-2-Chlorophenol	44.8%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	48.8%	d14-p-Terphenyl	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC21-2-4**
 SAMPLE

Lab Sample ID: QL86F
LIMS ID: 10-4953
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 00:34
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 42.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**64**
106-46-7	**1,4-Dichlorobenzene**	**6.2**	**160**
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	**Dimethylphthalate**	**15**	**40**
85-68-7	**Butylbenzylphthalate**	**15**	**85**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	32	< 32 Y
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	62.4%	d5-Phenol	58.1%
2-Fluorophenol	45.3%	d4-2-Chlorophenol	47.7%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	66.0%
2,4,6-Tribromophenol	64.3%	d14-p-Terphenyl	142%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC21-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QL86F
LIMS ID: 10-4953
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 23:06
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 42.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**56**
106-46-7	**1,4-Dichlorobenzene**	**18**	**160**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**120**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	62.4%	d5-Phenol	54.4%
2-Fluorophenol	46.4%	d4-2-Chlorophenol	45.6%
d4-1,2-Dichlorobenzene	54.0%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	51.2%	d14-p-Terphenyl	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC23-0-1.3**
 SAMPLE

Lab Sample ID: QM57A
LIMS ID: 10-5375
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/17/10 17:58
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.8**	**45**
106-46-7	**1,4-Dichlorobenzene**	**5.8**	**5.8**
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	14	< 14 U
85-68-7	**Butylbenzylphthalate**	**14**	**14**
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	7.6	< 7.6 Y
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	70.0%	d5-Phenol	52.8%
2-Fluorophenol	50.1%	d4-2-Chlorophenol	54.4%
d4-1,2-Dichlorobenzene	55.6%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	59.7%	d14-p-Terphenyl	86.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC23-1.3-3.2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 13:26
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 10.0
Percent Moisture: 47.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**60**	**760**
106-46-7	1,4-Dichlorobenzene	60	< 60 U
120-82-1	1,2,4-Trichlorobenzene	60	< 60 U
118-74-1	Hexachlorobenzene	60	< 60 U
87-68-3	Hexachlorobutadiene	60	< 60 U
131-11-3	Dimethylphthalate	150	< 150 U
85-68-7	**Butylbenzylphthalate**	**150**	**340**
95-48-7	2-Methylphenol	60	< 60 U
105-67-9	2,4-Dimethylphenol	60	< 60 U
86-30-6	N-Nitrosodiphenylamine	60	< 60 U
100-51-6	Benzyl Alcohol	300	< 300 U
87-86-5	Pentachlorophenol	300	< 300 U
95-50-1	1,2-Dichlorobenzene	60	< 60 U
621-64-7	**N-Nitroso-Di-N-Propylamine**	**300**	**350**
62-75-9	N-Nitrosodimethylamine	300	< 300 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	72.0%	d5-Phenol	72.0%
2-Fluorophenol	50.7%	d4-2-Chlorophenol	69.3%
d4-1,2-Dichlorobenzene	76.0%	d5-Nitrobenzene	64.0%
2,4,6-Tribromophenol	66.7%	d14-p-Terphenyl	172%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC26-0-2.7**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57C
LIMS ID: 10-5377
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/17/10 18:31
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 22.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**6.8**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.8%	d5-Phenol	50.4%
2-Fluorophenol	50.4%	d4-2-Chlorophenol	53.1%
d4-1,2-Dichlorobenzene	58.0%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	63.5%	d14-p-Terphenyl	75.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC26-2.7-4**
 SAMPLE

Lab Sample ID: QM57D
LIMS ID: 10-5378
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/17/10 19:03
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.0%	d5-Phenol	49.1%
2-Fluorophenol	50.1%	d4-2-Chlorophenol	56.8%
d4-1,2-Dichlorobenzene	57.6%	d5-Nitrobenzene	56.0%
2,4,6-Tribromophenol	54.7%	d14-p-Terphenyl	74.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC27-0-2**
 SAMPLE

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 13:58
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 54.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**110**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**110**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	200	< 200 Y
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	72.0%	d5-Phenol	63.2%
2-Fluorophenol	50.4%	d4-2-Chlorophenol	70.4%
d4-1,2-Dichlorobenzene	75.6%	d5-Nitrobenzene	96.0%
2,4,6-Tribromophenol	62.4%	d14-p-Terphenyl	80.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC27-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 14:31
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 51.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**110**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**100**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 Y
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	75.6%	d5-Phenol	54.4%
2-Fluorophenol	44.8%	d4-2-Chlorophenol	60.8%
d4-1,2-Dichlorobenzene	72.0%	d5-Nitrobenzene	67.2%
2,4,6-Tribromophenol	68.8%	d14-p-Terphenyl	112%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC29-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57W
LIMS ID: 10-5435
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/24/10 14:28
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 10.0
Percent Moisture: 49.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**61**	**74**
106-46-7	1,4-Dichlorobenzene	61	< 61 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-68-3	Hexachlorobutadiene	61	< 61 U
131-11-3	Dimethylphthalate	150	< 150 U
85-68-7	Butylbenzylphthalate	150	< 150 U
95-48-7	2-Methylphenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
86-30-6	N-Nitrosodiphenylamine	92	< 92 Y
100-51-6	Benzyl Alcohol	310	< 310 U
87-86-5	Pentachlorophenol	310	< 310 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
62-75-9	N-Nitrosodimethylamine	310	< 310 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	84.0%	d5-Phenol	64.0%
2-Fluorophenol	56.0%	d4-2-Chlorophenol	61.3%
d4-1,2-Dichlorobenzene	100%	d5-Nitrobenzene	80.0%
2,4,6-Tribromophenol	58.7%	d14-p-Terphenyl	140%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC29-2-3.9**
 SAMPLE

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/24/10 15:02
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**110**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	**2,4-Dimethylphenol**	**18**	**71**
86-30-6	N-Nitrosodiphenylamine	140	< 140 Y
100-51-6	Benzyl Alcohol	89	< 89 U
87-86-5	Pentachlorophenol	89	< 89 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	130	< 130 Y
62-75-9	N-Nitrosodimethylamine	89	< 89 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	58.8%	d5-Phenol	55.2%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	58.4%
d4-1,2-Dichlorobenzene	85.2%	d5-Nitrobenzene	66.0%
2,4,6-Tribromophenol	60.8%	d14-p-Terphenyl	156%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC30-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57G
LIMS ID: 10-5381
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 15:04
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**57**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**22**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**45**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	76.8%	d5-Phenol	57.9%
2-Fluorophenol	54.7%	d4-2-Chlorophenol	69.1%
d4-1,2-Dichlorobenzene	59.2%	d5-Nitrobenzene	63.6%
2,4,6-Tribromophenol	58.7%	d14-p-Terphenyl	78.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC30-2-4.3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57H
LIMS ID: 10-5382
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 15:37
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 43.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**60**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**18**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**48**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	72.0%	d5-Phenol	57.6%
2-Fluorophenol	54.9%	d4-2-Chlorophenol	68.3%
d4-1,2-Dichlorobenzene	58.0%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	65.9%	d14-p-Terphenyl	87.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC32-0-2**
 SAMPLE

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 16:10
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**19**	**62**
106-46-7	**1,4-Dichlorobenzene**	**19**	**71**
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-68-3	Hexachlorobutadiene	19	< 19 U
131-11-3	Dimethylphthalate	47	< 47 U
85-68-7	**Butylbenzylphthalate**	**47**	**120**
95-48-7	2-Methylphenol	19	< 19 U
105-67-9	**2,4-Dimethylphenol**	**19**	**38**
86-30-6	N-Nitrosodiphenylamine	190	< 190 Y
100-51-6	Benzyl Alcohol	94	< 94 U
87-86-5	Pentachlorophenol	94	< 94 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	900	< 900 Y
62-75-9	N-Nitrosodimethylamine	94	< 94 U

Reported in $\mu g/kg$ (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	80.4%	d5-Phenol	97.6%
2-Fluorophenol	53.6%	d4-2-Chlorophenol	72.0%
d4-1,2-Dichlorobenzene	109%	d5-Nitrobenzene	130%
2,4,6-Tribromophenol	64.0%	d14-p-Terphenyl	93.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC32-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 16:42
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 51.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**82**
106-46-7	**1,4-Dichlorobenzene**	**18**	**44**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**67**
95-48-7	**2-Methylphenol**	**18**	**22**
105-67-9	**2,4-Dimethylphenol**	**18**	**41**
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,000	< 1,000 Y
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	26.4%	d5-Phenol	30.4%
2-Fluorophenol	14.4%	d4-2-Chlorophenol	20.8%
d4-1,2-Dichlorobenzene	48.0%	d5-Nitrobenzene	144%
2,4,6-Tribromophenol	20.8%	d14-p-Terphenyl	30.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC33-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80A
LIMS ID: 10-5591
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 20:25
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 43.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**19**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**9.0**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**24**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	**N-Nitrosodiphenylamine**	**6.0**	**12**
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	58.8%	d5-Phenol	55.5%
2-Fluorophenol	44.0%	d4-2-Chlorophenol	55.2%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	52.4%
2,4,6-Tribromophenol	44.8%	d14-p-Terphenyl	74.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC33-2-3.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 20:58
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 45.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**14**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	30	< 30 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	57.2%	d5-Phenol	46.7%
2-Fluorophenol	36.0%	d4-2-Chlorophenol	40.5%
d4-1,2-Dichlorobenzene	49.2%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	44.0%	d14-p-Terphenyl	74.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC35-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL56M
LIMS ID: 10-4789
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/24/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 21:54
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 36.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**23**
106-46-7	**1,4-Dichlorobenzene**	**5.9**	**12**
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**28**
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.6%	d5-Phenol	55.2%
2-Fluorophenol	50.1%	d4-2-Chlorophenol	49.6%
d4-1,2-Dichlorobenzene	54.8%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	92.3%	d14-p-Terphenyl	86.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC35-2-4**
 SAMPLE

Lab Sample ID: QL56N
LIMS ID: 10-4790
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/24/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 22:26
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 23.4%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	71.6%	d5-Phenol	56.8%
2-Fluorophenol	53.3%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	60.8%	d5-Nitrobenzene	59.6%
2,4,6-Tribromophenol	98.9%	d14-p-Terphenyl	86.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC37-0-2**
 SAMPLE

Lab Sample ID: QL86G
LIMS ID: 10-4954
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 01:07
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**6.5**
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**18**
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	47.2%	d5-Phenol	39.7%
2-Fluorophenol	32.5%	d4-2-Chlorophenol	33.3%
d4-1,2-Dichlorobenzene	40.0%	d5-Nitrobenzene	44.8%
2,4,6-Tribromophenol	39.5%	d14-p-Terphenyl	62.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC37-0-2**
 DILUTION

Lab Sample ID: QL86G
LIMS ID: 10-4954
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 23:38
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	44	< 44 U
85-68-7	Butylbenzylphthalate	44	< 44 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	88	< 88 U
87-86-5	Pentachlorophenol	88	< 88 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	88	< 88 U
62-75-9	N-Nitrosodimethylamine	88	< 88 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	45.6%	d5-Phenol	36.0%
2-Fluorophenol	33.6%	d4-2-Chlorophenol	31.2%
d4-1,2-Dichlorobenzene	37.2%	d5-Nitrobenzene	38.4%
2,4,6-Tribromophenol	36.0%	d14-p-Terphenyl	66.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC37-2-3.9**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86H
LIMS ID: 10-4955
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 16:31
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.8%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.6%	d5-Phenol	61.3%
2-Fluorophenol	50.4%	d4-2-Chlorophenol	50.7%
d4-1,2-Dichlorobenzene	53.6%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	56.8%	d14-p-Terphenyl	83.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC38-0-0.8**
 SAMPLE

Lab Sample ID: QL86I
LIMS ID: 10-4956
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 17:04
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.8%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	62.9%
2-Fluorophenol	52.0%	d4-2-Chlorophenol	52.0%
d4-1,2-Dichlorobenzene	56.0%	d5-Nitrobenzene	59.2%
2,4,6-Tribromophenol	59.2%	d14-p-Terphenyl	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC38-0.8-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86J
LIMS ID: 10-4957
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 02:46
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 22.8%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.2%	d5-Phenol	54.4%
2-Fluorophenol	46.9%	d4-2-Chlorophenol	45.6%
d4-1,2-Dichlorobenzene	54.4%	d5-Nitrobenzene	59.6%
2,4,6-Tribromophenol	54.9%	d14-p-Terphenyl	84.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC41-0-0.6**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL56O
LIMS ID: 10-4791
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/08/10 22:58
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	69.2%	d5-Phenol	54.1%
2-Fluorophenol	50.7%	d4-2-Chlorophenol	50.1%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	58.4%
2,4,6-Tribromophenol	92.3%	d14-p-Terphenyl	86.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC41-0.6-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL56P
LIMS ID: 10-4792
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 14:19
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.0%	d5-Phenol	63.2%
2-Fluorophenol	53.6%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	62.0%	d5-Nitrobenzene	60.4%
2,4,6-Tribromophenol	95.7%	d14-p-Terphenyl	88.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC43-0-1.3**
 SAMPLE

Lab Sample ID: QL86K
LIMS ID: 10-4958
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 03:19
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 34.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**35**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**21**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**32**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	62.8%	d5-Phenol	53.9%
2-Fluorophenol	42.9%	d4-2-Chlorophenol	44.5%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	60.4%
2,4,6-Tribromophenol	55.2%	d14-p-Terphenyl	111%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC43-0-1.3**
 DILUTION

Lab Sample ID: QL86K
LIMS ID: 10-4958
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/13/10 00:11
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 34.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**33**
106-46-7	**1,4-Dichlorobenzene**	**18**	**20**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.6%	d5-Phenol	51.2%
2-Fluorophenol	45.6%	d4-2-Chlorophenol	44.0%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	55.2%
2,4,6-Tribromophenol	49.6%	d14-p-Terphenyl	96.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC43-1.3-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86L
LIMS ID: 10-4959
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 03:52
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**11**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**8.3**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**22**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	12	< 12 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	59.6%	d5-Phenol	49.9%
2-Fluorophenol	40.0%	d4-2-Chlorophenol	41.3%
d4-1,2-Dichlorobenzene	49.2%	d5-Nitrobenzene	56.8%
2,4,6-Tribromophenol	54.4%	d14-p-Terphenyl	96.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC43-1.3-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QL86L
LIMS ID: 10-4959
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/13/10 00:44
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	89	< 89 U
87-86-5	Pentachlorophenol	89	< 89 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	89	< 89 U
62-75-9	N-Nitrosodimethylamine	89	< 89 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	58.8%	d5-Phenol	48.8%
2-Fluorophenol	41.6%	d4-2-Chlorophenol	41.6%
d4-1,2-Dichlorobenzene	49.2%	d5-Nitrobenzene	50.4%
2,4,6-Tribromophenol	47.2%	d14-p-Terphenyl	88.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC45-0-1**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL56Q
LIMS ID: 10-4793
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 14:51
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 21.1%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	62.9%
2-Fluorophenol	53.9%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	63.2%	d5-Nitrobenzene	61.6%
2,4,6-Tribromophenol	90.4%	d14-p-Terphenyl	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC45-1-1.7**
 SAMPLE

Lab Sample ID: QL56R
LIMS ID: 10-4794
Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/02/10
Date Analyzed: 03/09/10 15:24
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.8%	d5-Phenol	61.1%
2-Fluorophenol	51.7%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	57.6%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	84.3%	d14-p-Terphenyl	82.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC46-0-2.3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86M
LIMS ID: 10-4960
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 17:37
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.6%	d5-Phenol	61.6%
2-Fluorophenol	49.3%	d4-2-Chlorophenol	49.9%
d4-1,2-Dichlorobenzene	53.2%	d5-Nitrobenzene	56.4%
2,4,6-Tribromophenol	56.3%	d14-p-Terphenyl	80.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC46-2.3-4**
 SAMPLE

Lab Sample ID: QL86N
LIMS ID: 10-4961
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 18:10
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.2%	d5-Phenol	59.7%
2-Fluorophenol	49.9%	d4-2-Chlorophenol	49.3%
d4-1,2-Dichlorobenzene	53.6%	d5-Nitrobenzene	56.0%
2,4,6-Tribromophenol	57.3%	d14-p-Terphenyl	80.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC48-0-2**
 SAMPLE

Lab Sample ID: QM80E
LIMS ID: 10-5595
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/16/10 22:34
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 41.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**27**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**9.1**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**28**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	58.0%	d5-Phenol	55.2%
2-Fluorophenol	42.7%	d4-2-Chlorophenol	45.6%
d4-1,2-Dichlorobenzene	50.0%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	46.1%	d14-p-Terphenyl	76.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC48-2-4.7**
 SAMPLE

Lab Sample ID: QM80F
LIMS ID: 10-5596
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/17/10 15:15
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 44.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**44**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**22**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	82.0%	d5-Phenol	52.3%
2-Fluorophenol	41.3%	d4-2-Chlorophenol	45.1%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	53.6%
2,4,6-Tribromophenol	70.1%	d14-p-Terphenyl	110%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC50-0-1.6**
 SAMPLE

Lab Sample ID: QM80G
LIMS ID: 10-5597
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/17/10 15:48
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 36.8%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**46**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.6%	d5-Phenol	64.5%
2-Fluorophenol	53.3%	d4-2-Chlorophenol	54.7%
d4-1,2-Dichlorobenzene	56.8%	d5-Nitrobenzene	53.6%
2,4,6-Tribromophenol	57.1%	d14-p-Terphenyl	77.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC50-1.6-4**
 SAMPLE

Lab Sample ID: QM80H
LIMS ID: 10-5598
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/17/10 21:44
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.8%	d5-Phenol	58.1%
2-Fluorophenol	51.7%	d4-2-Chlorophenol	56.0%
d4-1,2-Dichlorobenzene	58.0%	d5-Nitrobenzene	57.2%
2,4,6-Tribromophenol	48.3%	d14-p-Terphenyl	77.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC51-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57K
LIMS ID: 10-5423
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 17:15
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.4%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.6%	d5-Phenol	59.2%
2-Fluorophenol	48.8%	d4-2-Chlorophenol	65.6%
d4-1,2-Dichlorobenzene	56.0%	d5-Nitrobenzene	56.0%
2,4,6-Tribromophenol	68.8%	d14-p-Terphenyl	78.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC51-2-3.8**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57L
LIMS ID: 10-5424
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 17:48
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	69.6%	d5-Phenol	60.3%
2-Fluorophenol	52.8%	d4-2-Chlorophenol	67.2%
d4-1,2-Dichlorobenzene	56.8%	d5-Nitrobenzene	59.6%
2,4,6-Tribromophenol	68.3%	d14-p-Terphenyl	82.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC52-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/17/10 22:16
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 41.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**90**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**7.2**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	**Dimethylphthalate**	**15**	**17**
85-68-7	**Butylbenzylphthalate**	**15**	**59 M**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.6%	d5-Phenol	61.1%
2-Fluorophenol	47.7%	d4-2-Chlorophenol	53.1%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	58.0%
2,4,6-Tribromophenol	46.4%	d14-p-Terphenyl	120%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC52-0-2**
Page 1 of 1 **DILUTION**

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/19/10 11:48
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 41.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**110**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	**Butylbenzylphthalate**	**45**	**86**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.0%	d5-Phenol	71.2%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	59.2%
d4-1,2-Dichlorobenzene	54.0%	d5-Nitrobenzene	58.8%
2,4,6-Tribromophenol	64.8%	d14-p-Terphenyl	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC52-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80J
LIMS ID: 10-5600
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/17/10 22:48
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**6.8**
106-46-7	1,4-Dichlorobenzene	6.2	< 6.2 U
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	16	< 16 U
85-68-7	Butylbenzylphthalate	16	< 16 U
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.8%	d5-Phenol	57.3%
2-Fluorophenol	49.3%	d4-2-Chlorophenol	55.5%
d4-1,2-Dichlorobenzene	55.6%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	53.9%	d14-p-Terphenyl	77.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC53-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80K
LIMS ID: 10-5601
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/18/10 23:21
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 33.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**29**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**7.2**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**23**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.4%	d5-Phenol	56.8%
2-Fluorophenol	50.1%	d4-2-Chlorophenol	49.3%
d4-1,2-Dichlorobenzene	54.4%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	48.0%	d14-p-Terphenyl	72.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC53-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80L
LIMS ID: 10-5602
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/18/10 23:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 33.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**16**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	57.9%
2-Fluorophenol	43.5%	d4-2-Chlorophenol	50.1%
d4-1,2-Dichlorobenzene	53.2%	d5-Nitrobenzene	55.2%
2,4,6-Tribromophenol	37.1%	d14-p-Terphenyl	77.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC54-0-2**
 SAMPLE

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/19/10 12:20
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 29.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**920**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**130**
95-48-7	**2-Methylphenol**	**18**	**82**
105-67-9	**2,4-Dimethylphenol**	**18**	**130**
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	68.0%
2-Fluorophenol	44.0%	d4-2-Chlorophenol	57.6%
d4-1,2-Dichlorobenzene	46.8%	d5-Nitrobenzene	52.8%
2,4,6-Tribromophenol	48.8%	d14-p-Terphenyl	76.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC54-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/09/10
Date Analyzed: 03/19/10 12:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.8%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**19**	**290**
106-46-7	1,4-Dichlorobenzene	19	< 19 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-68-3	Hexachlorobutadiene	19	< 19 U
131-11-3	Dimethylphthalate	47	< 47 U
85-68-7	**Butylbenzylphthalate**	**47**	**190**
95-48-7	2-Methylphenol	19	< 19 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	73.2%	d5-Phenol	60.8%
2-Fluorophenol	45.6%	d4-2-Chlorophenol	57.6%
d4-1,2-Dichlorobenzene	61.2%	d5-Nitrobenzene	52.8%
2,4,6-Tribromophenol	67.2%	d14-p-Terphenyl	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC55-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86O
LIMS ID: 10-4962
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 18:43
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**11**
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**22**
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	61.6%	d5-Phenol	55.7%
2-Fluorophenol	45.9%	d4-2-Chlorophenol	45.9%
d4-1,2-Dichlorobenzene	50.4%	d5-Nitrobenzene	52.4%
2,4,6-Tribromophenol	52.8%	d14-p-Terphenyl	77.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC55-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86P
LIMS ID: 10-4963
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 19:16
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.0%	d5-Phenol	59.5%
2-Fluorophenol	50.1%	d4-2-Chlorophenol	49.6%
d4-1,2-Dichlorobenzene	53.6%	d5-Nitrobenzene	56.8%
2,4,6-Tribromophenol	58.1%	d14-p-Terphenyl	85.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC57-0-2**
 SAMPLE

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 22:38
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**40**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**77**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	17	< 17 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	58.4%
2-Fluorophenol	49.9%	d4-2-Chlorophenol	49.3%
d4-1,2-Dichlorobenzene	57.6%	d5-Nitrobenzene	60.8%
2,4,6-Tribromophenol	55.5%	d14-p-Terphenyl	99.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC57-0-2**
Page 1 of 1 **DILUTION**

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 19:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**52**
106-46-7	**1,4-Dichlorobenzene**	**18**	**73**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	21	< 21 Y
100-51-6	Benzyl Alcohol	89	< 89 U
87-86-5	Pentachlorophenol	89	< 89 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	89	< 89 U
62-75-9	N-Nitrosodimethylamine	89	< 89 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	69.6%	d5-Phenol	52.8%
2-Fluorophenol	42.4%	d4-2-Chlorophenol	54.4%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	44.8%	d14-p-Terphenyl	80.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC57-2-4**
 SAMPLE

Lab Sample ID: QM30P
LIMS ID: 10-5186
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 13:55
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 20.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	59.6%	d5-Phenol	56.3%
2-Fluorophenol	47.2%	d4-2-Chlorophenol	54.4%
d4-1,2-Dichlorobenzene	52.8%	d5-Nitrobenzene	58.0%
2,4,6-Tribromophenol	49.3%	d14-p-Terphenyl	80.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC58-0-1.8**
 SAMPLE

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 20:26
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**170**
106-46-7	**1,4-Dichlorobenzene**	**6.2**	**8.1**
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	**Dimethylphthalate**	**16**	**16**
85-68-7	**Butylbenzylphthalate**	**16**	**44**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.4%	d5-Phenol	64.0%
2-Fluorophenol	52.8%	d4-2-Chlorophenol	53.9%
d4-1,2-Dichlorobenzene	59.2%	d5-Nitrobenzene	59.2%
2,4,6-Tribromophenol	62.4%	d14-p-Terphenyl	158%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC58-0-1.8**
Page 1 of 1 **DILUTION**

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 17:43
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**19**	**150**
106-46-7	1,4-Dichlorobenzene	19	< 19 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-68-3	Hexachlorobutadiene	19	< 19 U
131-11-3	Dimethylphthalate	47	< 47 U
85-68-7	Butylbenzylphthalate	47	< 47 U
95-48-7	2-Methylphenol	19	< 19 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
100-51-6	Benzyl Alcohol	93	< 93 U
87-86-5	Pentachlorophenol	93	< 93 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	93	< 93 U
62-75-9	N-Nitrosodimethylamine	93	< 93 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	73.2%	d5-Phenol	61.6%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	51.2%
d4-1,2-Dichlorobenzene	57.6%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	55.2%	d14-p-Terphenyl	92.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC58-1.8-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 20:59
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**29**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	47	< 47 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.2%	d5-Phenol	62.9%
2-Fluorophenol	53.6%	d4-2-Chlorophenol	53.9%
d4-1,2-Dichlorobenzene	61.6%	d5-Nitrobenzene	61.2%
2,4,6-Tribromophenol	54.7%	d14-p-Terphenyl	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC58-1.8-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 18:16
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 28.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**32**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	56	< 56 Y
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	70.8%	d5-Phenol	59.2%
2-Fluorophenol	48.0%	d4-2-Chlorophenol	60.8%
d4-1,2-Dichlorobenzene	56.4%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	54.4%	d14-p-Terphenyl	86.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC59-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30M
LIMS ID: 10-5183
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 21:32
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.6%	d5-Phenol	57.3%
2-Fluorophenol	50.9%	d4-2-Chlorophenol	51.2%
d4-1,2-Dichlorobenzene	59.2%	d5-Nitrobenzene	62.8%
2,4,6-Tribromophenol	59.7%	d14-p-Terphenyl	90.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC59-0-2**
Page 1 of 1 **DILUTION**

Lab Sample ID: QM30M
LIMS ID: 10-5183
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 18:48
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	67.2%	d5-Phenol	52.0%
2-Fluorophenol	43.2%	d4-2-Chlorophenol	52.0%
d4-1,2-Dichlorobenzene	52.8%	d5-Nitrobenzene	55.2%
2,4,6-Tribromophenol	45.6%	d14-p-Terphenyl	76.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC59-2-4**
 SAMPLE

Lab Sample ID: QM30N
LIMS ID: 10-5184
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/15/10 22:05
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	60.4%	d5-Phenol	53.6%
2-Fluorophenol	46.9%	d4-2-Chlorophenol	53.9%
d4-1,2-Dichlorobenzene	54.4%	d5-Nitrobenzene	62.8%
2,4,6-Tribromophenol	55.2%	d14-p-Terphenyl	93.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC59-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QM30N
LIMS ID: 10-5184
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 19:21
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.6%	d5-Phenol	52.0%
2-Fluorophenol	41.6%	d4-2-Chlorophenol	52.0%
d4-1,2-Dichlorobenzene	51.6%	d5-Nitrobenzene	54.0%
2,4,6-Tribromophenol	38.4%	d14-p-Terphenyl	79.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC60-0-0.8**
 SAMPLE

Lab Sample ID: QM30Q
LIMS ID: 10-5187
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 14:28
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 36.0%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**54**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**11**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.0%	d5-Phenol	59.7%
2-Fluorophenol	47.7%	d4-2-Chlorophenol	56.0%
d4-1,2-Dichlorobenzene	52.0%	d5-Nitrobenzene	57.6%
2,4,6-Tribromophenol	56.0%	d14-p-Terphenyl	72.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC60-0.8-3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM30R
LIMS ID: 10-5188
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 15:00
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 33.3%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.2	< 6.2 U
106-46-7	1,4-Dichlorobenzene	6.2	< 6.2 U
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	60.3%
2-Fluorophenol	48.8%	d4-2-Chlorophenol	57.3%
d4-1,2-Dichlorobenzene	53.6%	d5-Nitrobenzene	60.0%
2,4,6-Tribromophenol	48.8%	d14-p-Terphenyl	75.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC61-0-1**
 SAMPLE

Lab Sample ID: QM30S
LIMS ID: 10-5189
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 15:33
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 30.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**26**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	69.6%	d5-Phenol	60.3%
2-Fluorophenol	47.5%	d4-2-Chlorophenol	56.5%
d4-1,2-Dichlorobenzene	54.0%	d5-Nitrobenzene	59.2%
2,4,6-Tribromophenol	49.3%	d14-p-Terphenyl	74.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC61-1-3**
 SAMPLE

Lab Sample ID: QM30T
LIMS ID: 10-5190
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/05/10
Date Analyzed: 03/16/10 16:05
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**7.8**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	57.6%
2-Fluorophenol	44.3%	d4-2-Chlorophenol	54.4%
d4-1,2-Dichlorobenzene	52.4%	d5-Nitrobenzene	54.8%
2,4,6-Tribromophenol	42.7%	d14-p-Terphenyl	75.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC63-0-2**
 SAMPLE

Lab Sample ID: QM57M
LIMS ID: 10-5425
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 18:20
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	57.6%
2-Fluorophenol	54.7%	d4-2-Chlorophenol	63.2%
d4-1,2-Dichlorobenzene	58.4%	d5-Nitrobenzene	62.0%
2,4,6-Tribromophenol	63.5%	d14-p-Terphenyl	78.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC63-2-4**
 SAMPLE

Lab Sample ID: QM57N
LIMS ID: 10-5426
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 18:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 28.7%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.2%	d5-Phenol	57.3%
2-Fluorophenol	51.7%	d4-2-Chlorophenol	64.5%
d4-1,2-Dichlorobenzene	56.8%	d5-Nitrobenzene	59.6%
2,4,6-Tribromophenol	52.5%	d14-p-Terphenyl	77.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC201-0-2.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86Q
LIMS ID: 10-4964
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 19:49
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 39.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**44**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**250**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	**Dimethylphthalate**	**15**	**180**
85-68-7	**Butylbenzylphthalate**	**15**	**64**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	**2,4-Dimethylphenol**	**6.1**	**6.1**
86-30-6	N-Nitrosodiphenylamine	7.9	< 7.9 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	63.2%	d5-Phenol	59.2%
2-Fluorophenol	46.9%	d4-2-Chlorophenol	48.5%
d4-1,2-Dichlorobenzene	51.2%	d5-Nitrobenzene	54.8%
2,4,6-Tribromophenol	52.3%	d14-p-Terphenyl	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC201-2.5-4**
 SAMPLE

Lab Sample ID: QL86R
LIMS ID: 10-4965
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 20:21
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.8	< 5.8 U
106-46-7	**1,4-Dichlorobenzene**	**5.8**	**12**
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	14	< 14 U
85-68-7	Butylbenzylphthalate	14	< 14 U
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	5.8	< 5.8 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in $\mu g/kg$ (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.6%	d5-Phenol	58.9%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	48.8%
d4-1,2-Dichlorobenzene	54.0%	d5-Nitrobenzene	55.6%
2,4,6-Tribromophenol	57.9%	d14-p-Terphenyl	91.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC202-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QL86S
LIMS ID: 10-4966
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 20:54
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**6.5**
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	53.6%	d5-Phenol	48.8%
2-Fluorophenol	41.3%	d4-2-Chlorophenol	40.8%
d4-1,2-Dichlorobenzene	46.0%	d5-Nitrobenzene	48.0%
2,4,6-Tribromophenol	49.1%	d14-p-Terphenyl	75.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC202-2-3.9**
 SAMPLE

Lab Sample ID: QL86T
LIMS ID: 10-4967
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/04/10
Date Analyzed: 03/12/10 21:27
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.1%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	60.4%	d5-Phenol	54.9%
2-Fluorophenol	45.9%	d4-2-Chlorophenol	44.8%
d4-1,2-Dichlorobenzene	50.8%	d5-Nitrobenzene	52.8%
2,4,6-Tribromophenol	61.6%	d14-p-Terphenyl	94.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC203-0-2**
 SAMPLE

Lab Sample ID: QM57S
LIMS ID: 10-5431
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 19:25
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**74**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**29**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**57**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	7.3	< 7.3 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.4%	d5-Phenol	63.7%
2-Fluorophenol	56.5%	d4-2-Chlorophenol	67.7%
d4-1,2-Dichlorobenzene	58.8%	d5-Nitrobenzene	66.8%
2,4,6-Tribromophenol	62.1%	d14-p-Terphenyl	91.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC203-2-4.3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57T
LIMS ID: 10-5432
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 19:58
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 44.7%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**64**
106-46-7	**1,4-Dichlorobenzene**	**6.1**	**20**
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**47**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.0%	d5-Phenol	62.9%
2-Fluorophenol	54.9%	d4-2-Chlorophenol	66.4%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	66.0%
2,4,6-Tribromophenol	65.6%	d14-p-Terphenyl	80.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC204-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57U
LIMS ID: 10-5433
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/19/10 20:30
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 49.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**51**
106-46-7	**1,4-Dichlorobenzene**	**18**	**64**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	**Butylbenzylphthalate**	**46**	**87**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	**2,4-Dimethylphenol**	**18**	**38**
86-30-6	N-Nitrosodiphenylamine	250	< 250 Y
100-51-6	Benzyl Alcohol	91	< 91 U
87-86-5	Pentachlorophenol	91	< 91 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	640	< 640 Y
62-75-9	N-Nitrosodimethylamine	91	< 91 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	79.2%	d5-Phenol	89.6%
2-Fluorophenol	53.6%	d4-2-Chlorophenol	72.8%
d4-1,2-Dichlorobenzene	94.8%	d5-Nitrobenzene	126%
2,4,6-Tribromophenol	64.8%	d14-p-Terphenyl	92.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC204-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Data Release Authorized:
Reported: 03/25/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: 09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/11/10
Date Analyzed: 03/24/10 13:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 10.0
Percent Moisture: 51.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	62	< 62 U
106-46-7	**1,4-Dichlorobenzene**	**62**	**140**
120-82-1	**1,2,4-Trichlorobenzene**	**62**	**62**
118-74-1	Hexachlorobenzene	62	< 62 U
87-68-3	Hexachlorobutadiene	62	< 62 U
131-11-3	Dimethylphthalate	150	< 150 U
85-68-7	Butylbenzylphthalate	150	< 150 U
95-48-7	2-Methylphenol	62	< 62 U
105-67-9	2,4-Dimethylphenol	62	< 62 U
86-30-6	N-Nitrosodiphenylamine	800	< 800 Y
100-51-6	Benzyl Alcohol	310	< 310 U
87-86-5	Pentachlorophenol	310	< 310 U
95-50-1	1,2-Dichlorobenzene	62	< 62 U
621-64-7	N-Nitroso-Di-N-Propylamine	570	< 570 Y
62-75-9	N-Nitrosodimethylamine	310	< 310 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	84.0%	d5-Phenol	80.0%
2-Fluorophenol	37.3%	d4-2-Chlorophenol	48.0%
d4-1,2-Dichlorobenzene	140%	d5-Nitrobenzene	328%
2,4,6-Tribromophenol	58.7%	d14-p-Terphenyl	132%

SEMIVOLATILE ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC36-0.9-3
SAMPLE

Lab Sample ID: QN38A
LIMS ID: 10-6066
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 15:10
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**10 J**
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC36-0.9-3
SAMPLE

Lab Sample ID: QN38A
LIMS ID: 10-6066
Matrix: Sediment
Date Analyzed: 03/23/10 15:10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**36**
86-74-8	Carbazole	19	< 19 U
120-12-7	**Anthracene**	**19**	**12 J**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**62**
129-00-0	**Pyrene**	**19**	**66**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**20**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**31**
218-01-9	**Chrysene**	**19**	**28**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**16 J**
207-08-9	**Benzo(k)fluoranthene**	**19**	**16 J**
50-32-8	**Benzo(a)pyrene**	**19**	**19 J**
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**10 J**
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.0%	2-Fluorobiphenyl	63.2%
d14-p-Terphenyl	64.0%	d4-1,2-Dichlorobenzene	52.4%
d5-Phenol	57.1%	2-Fluorophenol	57.1%
2,4,6-Tribromophenol	69.1%	d4-2-Chlorophenol	59.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC36-3-5
SAMPLE

Lab Sample ID: QN38B
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 15:42
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC36-3-5
SAMPLE

Lab Sample ID: QN38B
LIMS ID: 10-6067
Matrix: Sediment
Date Analyzed: 03/23/10 15:42

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**24**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.4%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	70.8%	d4-1,2-Dichlorobenzene	51.6%
d5-Phenol	58.7%	2-Fluorophenol	56.0%
2,4,6-Tribromophenol	61.6%	d4-2-Chlorophenol	59.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC39-0-2
SAMPLE

Lab Sample ID: QN38C
LIMS ID: 10-6068
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 16:15
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.1%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**16 J**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC39-0-2
SAMPLE

Lab Sample ID: QN38C
LIMS ID: 10-6068
Matrix: Sediment
Date Analyzed: 03/23/10 16:15

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**20**	**16 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**25**
129-00-0	**Pyrene**	**20**	**150**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**20**	**13 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**85**
218-01-9	**Chrysene**	**20**	**19 J**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**39**
207-08-9	**Benzo(k)fluoranthene**	**20**	**39**
50-32-8	**Benzo(a)pyrene**	**20**	**37**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**16 J**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**17 J**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.2%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	63.6%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	59.7%	2-Fluorophenol	57.6%
2,4,6-Tribromophenol	52.8%	d4-2-Chlorophenol	60.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC39-2-3.4
SAMPLE

Lab Sample ID: QN38D
LIMS ID: 10-6069
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 16:47
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 26.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC39-2-3.4
SAMPLE

Lab Sample ID: QN38D
LIMS ID: 10-6069
Matrix: Sediment
Date Analyzed: 03/23/10 16:47

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**30**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.0%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	63.5%	2-Fluorophenol	61.9%
2,4,6-Tribromophenol	41.3%	d4-2-Chlorophenol	65.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC40-0-1
SAMPLE

Lab Sample ID: QN38E
LIMS ID: 10-6070
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 17:20
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 11.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	44	< 44 U
111-44-4	Bis-(2-Chloroethyl) Ether	44	< 44 U
95-57-8	2-Chlorophenol	44	< 44 U
541-73-1	1,3-Dichlorobenzene	44	< 44 U
106-46-7	1,4-Dichlorobenzene	44	< 44 U
100-51-6	Benzyl Alcohol	44	< 44 U
95-50-1	1,2-Dichlorobenzene	44	< 44 U
95-48-7	2-Methylphenol	44	< 44 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	44	< 44 U
106-44-5	4-Methylphenol	44	< 44 U
621-64-7	N-Nitroso-Di-N-Propylamine	220	< 220 U
67-72-1	Hexachloroethane	44	< 44 U
98-95-3	Nitrobenzene	44	< 44 U
78-59-1	Isophorone	44	< 44 U
88-75-5	2-Nitrophenol	220	< 220 U
105-67-9	2,4-Dimethylphenol	44	< 44 U
65-85-0	Benzoic Acid	440	< 440 U
111-91-1	bis(2-Chloroethoxy) Methane	44	< 44 U
120-83-2	2,4-Dichlorophenol	220	< 220 U
120-82-1	1,2,4-Trichlorobenzene	44	< 44 U
91-20-3	Naphthalene	44	< 44 U
106-47-8	4-Chloroaniline	220	< 220 U
87-68-3	Hexachlorobutadiene	44	< 44 U
59-50-7	4-Chloro-3-methylphenol	220	< 220 U
91-57-6	2-Methylnaphthalene	44	< 44 U
77-47-4	Hexachlorocyclopentadiene	220	< 220 U
88-06-2	2,4,6-Trichlorophenol	220	< 220 U
95-95-4	2,4,5-Trichlorophenol	220	< 220 U
91-58-7	2-Chloronaphthalene	44	< 44 U
88-74-4	2-Nitroaniline	220	< 220 U
131-11-3	Dimethylphthalate	44	< 44 U
208-96-8	Acenaphthylene	44	< 44 U
99-09-2	3-Nitroaniline	220	< 220 U
83-32-9	Acenaphthene	44	< 44 U
51-28-5	2,4-Dinitrophenol	440	< 440 U
100-02-7	4-Nitrophenol	220	< 220 U
132-64-9	Dibenzofuran	44	< 44 U
606-20-2	2,6-Dinitrotoluene	220	< 220 U
121-14-2	2,4-Dinitrotoluene	220	< 220 U
84-66-2	Diethylphthalate	44	< 44 U
7005-72-3	4-Chlorophenyl-phenylether	44	< 44 U
86-73-7	Fluorene	44	< 44 U
100-01-6	4-Nitroaniline	220	< 220 U
534-52-1	4,6-Dinitro-2-Methylphenol	440	< 440 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC40-0-1
SAMPLE

Lab Sample ID: QN38E
LIMS ID: 10-6070
Matrix: Sediment
Date Analyzed: 03/23/10 17:20

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	44	< 44 U
101-55-3	4-Bromophenyl-phenylether	44	< 44 U
118-74-1	Hexachlorobenzene	44	< 44 U
87-86-5	Pentachlorophenol	220	< 220 U
85-01-8	**Phenanthrene**	**44**	**63**
86-74-8	Carbazole	44	< 44 U
120-12-7	**Anthracene**	**44**	**51**
84-74-2	Di-n-Butylphthalate	44	< 44 U
206-44-0	**Fluoranthene**	**44**	**150**
129-00-0	**Pyrene**	**44**	**240**
85-68-7	Butylbenzylphthalate	44	< 44 U
91-94-1	3,3'-Dichlorobenzidine	220	< 220 U
56-55-3	**Benzo(a)anthracene**	**44**	**75**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**44**	**230**
218-01-9	**Chrysene**	**44**	**110**
117-84-0	Di-n-Octyl phthalate	44	< 44 U
205-99-2	**Benzo(b)fluoranthene**	**44**	**81**
207-08-9	**Benzo(k)fluoranthene**	**44**	**81**
50-32-8	**Benzo(a)pyrene**	**44**	**93**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**44**	**43 J**
53-70-3	Dibenz(a,h)anthracene	44	< 44 U
191-24-2	**Benzo(g,h,i)perylene**	**44**	**51**
62-53-3	Aniline	44	< 44 U
90-12-0	1-Methylnaphthalene	44	< 44 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.8%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	65.3%	2-Fluorophenol	64.8%
2,4,6-Tribromophenol	86.1%	d4-2-Chlorophenol	66.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC40-1-4
SAMPLE

Lab Sample ID: QN38F
LIMS ID: 10-6071
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 17:52
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC40-1-4
SAMPLE

Lab Sample ID: QN38F
LIMS ID: 10-6071
Matrix: Sediment
Date Analyzed: 03/23/10 17:52

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**33**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**14 J**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**57**
129-00-0	**Pyrene**	**20**	**86**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**23**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**24**
218-01-9	**Chrysene**	**20**	**34**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**22**
207-08-9	**Benzo(k)fluoranthene**	**20**	**22**
50-32-8	**Benzo(a)pyrene**	**20**	**26**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**13 J**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**15 J**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.6%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	63.2%	2-Fluorophenol	61.3%
2,4,6-Tribromophenol	81.6%	d4-2-Chlorophenol	64.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
SAMPLE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 18:24
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 9.47 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	53	< 53 U
111-44-4	Bis-(2-Chloroethyl) Ether	53	< 53 U
95-57-8	2-Chlorophenol	53	< 53 U
541-73-1	1,3-Dichlorobenzene	53	< 53 U
106-46-7	1,4-Dichlorobenzene	53	< 53 U
100-51-6	Benzyl Alcohol	53	< 53 U
95-50-1	1,2-Dichlorobenzene	53	< 53 U
95-48-7	2-Methylphenol	53	< 53 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	53	< 53 U
106-44-5	4-Methylphenol	53	< 53 U
621-64-7	N-Nitroso-Di-N-Propylamine	260	< 260 U
67-72-1	Hexachloroethane	53	< 53 U
98-95-3	Nitrobenzene	53	< 53 U
78-59-1	Isophorone	53	< 53 U
88-75-5	2-Nitrophenol	260	< 260 U
105-67-9	2,4-Dimethylphenol	53	< 53 U
65-85-0	Benzoic Acid	530	< 530 U
111-91-1	bis(2-Chloroethoxy) Methane	53	< 53 U
120-83-2	2,4-Dichlorophenol	260	< 260 U
120-82-1	1,2,4-Trichlorobenzene	53	< 53 U
91-20-3	Naphthalene	53	< 53 U
106-47-8	4-Chloroaniline	260	< 260 U
87-68-3	Hexachlorobutadiene	53	< 53 U
59-50-7	4-Chloro-3-methylphenol	260	< 260 U
91-57-6	2-Methylnaphthalene	53	< 53 U
77-47-4	Hexachlorocyclopentadiene	260	< 260 U
88-06-2	2,4,6-Trichlorophenol	260	< 260 U
95-95-4	2,4,5-Trichlorophenol	260	< 260 U
91-58-7	2-Chloronaphthalene	53	< 53 U
88-74-4	2-Nitroaniline	260	< 260 U
131-11-3	Dimethylphthalate	53	< 53 U
208-96-8	Acenaphthylene	53	< 53 U
99-09-2	3-Nitroaniline	260	< 260 U
83-32-9	Acenaphthene	53	< 53 U
51-28-5	2,4-Dinitrophenol	530	< 530 U
100-02-7	4-Nitrophenol	260	< 260 U
132-64-9	Dibenzofuran	53	< 53 U
606-20-2	2,6-Dinitrotoluene	260	< 260 U
121-14-2	2,4-Dinitrotoluene	260	< 260 U
84-66-2	Diethylphthalate	53	< 53 U
7005-72-3	4-Chlorophenyl-phenylether	53	< 53 U
86-73-7	Fluorene	53	< 53 U
100-01-6	4-Nitroaniline	260	< 260 U
534-52-1	4,6-Dinitro-2-Methylphenol	530	< 530 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
SAMPLE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed: 03/23/10 18:24

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	53	< 53 U
101-55-3	4-Bromophenyl-phenylether	53	< 53 U
118-74-1	Hexachlorobenzene	53	< 53 U
87-86-5	Pentachlorophenol	260	< 260 U
85-01-8	**Phenanthrene**	**53**	**43 J**
86-74-8	Carbazole	53	< 53 U
120-12-7	**Anthracene**	**53**	**41 J**
84-74-2	Di-n-Butylphthalate	53	< 53 U
206-44-0	**Fluoranthene**	**53**	**200**
129-00-0	**Pyrene**	**53**	**230**
85-68-7	Butylbenzylphthalate	53	< 53 U
91-94-1	3,3'-Dichlorobenzidine	260	< 260 U
56-55-3	**Benzo(a)anthracene**	**53**	**67**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**53**	**450**
218-01-9	**Chrysene**	**53**	**95**
117-84-0	Di-n-Octyl phthalate	53	< 53 U
205-99-2	**Benzo(b)fluoranthene**	**53**	**74**
207-08-9	**Benzo(k)fluoranthene**	**53**	**74**
50-32-8	**Benzo(a)pyrene**	**53**	**80**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**53**	**33 J**
53-70-3	Dibenz(a,h)anthracene	53	< 53 U
191-24-2	**Benzo(g,h,i)perylene**	**53**	**37 J**
62-53-3	Aniline	53	< 53 U
90-12-0	1-Methylnaphthalene	53	< 53 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.6%	2-Fluorobiphenyl	71.6%
d14-p-Terphenyl	67.6%	d4-1,2-Dichlorobenzene	56.0%
d5-Phenol	64.8%	2-Fluorophenol	65.1%
2,4,6-Tribromophenol	81.1%	d4-2-Chlorophenol	66.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-2-4
SAMPLE

Lab Sample ID: QN38H
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 20:33
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 8.48 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 47.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	< 59 U
111-44-4	Bis-(2-Chloroethyl) Ether	59	< 59 U
95-57-8	2-Chlorophenol	59	< 59 U
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	Benzyl Alcohol	59	< 59 U
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	< 59 U
106-44-5	4-Methylphenol	59	< 59 U
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	59	< 59 U
98-95-3	Nitrobenzene	59	< 59 U
78-59-1	Isophorone	59	< 59 U
88-75-5	2-Nitrophenol	300	< 300 U
105-67-9	2,4-Dimethylphenol	59	< 59 U
65-85-0	Benzoic Acid	590	< 590 U
111-91-1	bis(2-Chloroethoxy) Methane	59	< 59 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	Naphthalene	59	< 59 U
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	59	< 59 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
91-57-6	2-Methylnaphthalene	59	< 59 U
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	59	< 59 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	59	< 59 U
208-96-8	Acenaphthylene	59	< 59 U
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	Acenaphthene	59	< 59 U
51-28-5	2,4-Dinitrophenol	590	< 590 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	Dibenzofuran	59	< 59 U
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U
84-66-2	Diethylphthalate	59	< 59 U
7005-72-3	4-Chlorophenyl-phenylether	59	< 59 U
86-73-7	**Fluorene**	**59**	**30 J**
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	590	< 590 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-2-4
SAMPLE

Lab Sample ID: QN38H
LIMS ID: 10-6073
Matrix: Sediment
Date Analyzed: 03/23/10 20:33

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
101-55-3	4-Bromophenyl-phenylether	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	**Phenanthrene**	**59**	**100**
86-74-8	Carbazole	59	< 59 U
120-12-7	**Anthracene**	**59**	**65**
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	**Fluoranthene**	**59**	**410**
129-00-0	**Pyrene**	**59**	**350**
85-68-7	Butylbenzylphthalate	59	< 59 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	**Benzo(a)anthracene**	**59**	**150**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**59**	**640**
218-01-9	**Chrysene**	**59**	**230**
117-84-0	Di-n-Octyl phthalate	59	< 59 U
205-99-2	**Benzo(b)fluoranthene**	**59**	**140**
207-08-9	**Benzo(k)fluoranthene**	**59**	**140**
50-32-8	**Benzo(a)pyrene**	**59**	**150**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**59**	**69**
53-70-3	**Dibenz(a,h)anthracene**	**59**	**34 J**
191-24-2	**Benzo(g,h,i)perylene**	**59**	**78**
62-53-3	Aniline	59	< 59 U
90-12-0	1-Methylnaphthalene	59	< 59 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.2%	2-Fluorobiphenyl	74.4%
d14-p-Terphenyl	73.2%	d4-1,2-Dichlorobenzene	52.8%
d5-Phenol	71.2%	2-Fluorophenol	66.9%
2,4,6-Tribromophenol	80.3%	d4-2-Chlorophenol	70.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC44-0-2
SAMPLE

Lab Sample ID: QN38I
LIMS ID: 10-6074
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 21:05
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC44-0-2
SAMPLE

Lab Sample ID: QN38I
LIMS ID: 10-6074
Matrix: Sediment
Date Analyzed: 03/23/10 21:05

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**16 J**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	58.4%
d5-Phenol	63.7%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	67.7%	d4-2-Chlorophenol	65.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC44-2-4
SAMPLE

Lab Sample ID: QN38J
LIMS ID: 10-6075
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 21:37
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC44-2-4
SAMPLE

Lab Sample ID: QN38J
LIMS ID: 10-6075
Matrix: Sediment
Date Analyzed: 03/23/10 21:37

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**15 J**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.4%	2-Fluorobiphenyl	63.2%
d14-p-Terphenyl	63.2%	d4-1,2-Dichlorobenzene	54.0%
d5-Phenol	58.9%	2-Fluorophenol	55.2%
2,4,6-Tribromophenol	65.3%	d4-2-Chlorophenol	59.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC47-0-2
SAMPLE

Lab Sample ID: QN38K
LIMS ID: 10-6076
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 22:09
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 13.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 42.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	37	< 37 U
111-44-4	Bis-(2-Chloroethyl) Ether	37	< 37 U
95-57-8	2-Chlorophenol	37	< 37 U
541-73-1	1,3-Dichlorobenzene	37	< 37 U
106-46-7	1,4-Dichlorobenzene	37	< 37 U
100-51-6	Benzyl Alcohol	37	< 37 U
95-50-1	1,2-Dichlorobenzene	37	< 37 U
95-48-7	2-Methylphenol	37	< 37 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	37	< 37 U
106-44-5	4-Methylphenol	37	< 37 U
621-64-7	N-Nitroso-Di-N-Propylamine	180	< 180 U
67-72-1	Hexachloroethane	37	< 37 U
98-95-3	Nitrobenzene	37	< 37 U
78-59-1	Isophorone	37	< 37 U
88-75-5	2-Nitrophenol	180	< 180 U
105-67-9	2,4-Dimethylphenol	37	< 37 U
65-85-0	Benzoic Acid	370	< 370 U
111-91-1	bis(2-Chloroethoxy) Methane	37	< 37 U
120-83-2	2,4-Dichlorophenol	180	< 180 U
120-82-1	1,2,4-Trichlorobenzene	37	< 37 U
91-20-3	Naphthalene	37	< 37 U
106-47-8	4-Chloroaniline	180	< 180 U
87-68-3	Hexachlorobutadiene	37	< 37 U
59-50-7	4-Chloro-3-methylphenol	180	< 180 U
91-57-6	2-Methylnaphthalene	37	< 37 U
77-47-4	Hexachlorocyclopentadiene	180	< 180 U
88-06-2	2,4,6-Trichlorophenol	180	< 180 U
95-95-4	2,4,5-Trichlorophenol	180	< 180 U
91-58-7	2-Chloronaphthalene	37	< 37 U
88-74-4	2-Nitroaniline	180	< 180 U
131-11-3	Dimethylphthalate	37	< 37 U
208-96-8	Acenaphthylene	37	< 37 U
99-09-2	3-Nitroaniline	180	< 180 U
83-32-9	Acenaphthene	37	< 37 U
51-28-5	2,4-Dinitrophenol	370	< 370 U
100-02-7	4-Nitrophenol	180	< 180 U
132-64-9	Dibenzofuran	37	< 37 U
606-20-2	2,6-Dinitrotoluene	180	< 180 U
121-14-2	2,4-Dinitrotoluene	180	< 180 U
84-66-2	Diethylphthalate	37	< 37 U
7005-72-3	4-Chlorophenyl-phenylether	37	< 37 U
86-73-7	Fluorene	37	< 37 U
100-01-6	4-Nitroaniline	180	< 180 U
534-52-1	4,6-Dinitro-2-Methylphenol	370	< 370 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC47-0-2
SAMPLE

Lab Sample ID: QN38K
LIMS ID: 10-6076
Matrix: Sediment
Date Analyzed: 03/23/10 22:09

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	37	< 37 U
101-55-3	4-Bromophenyl-phenylether	37	< 37 U
118-74-1	Hexachlorobenzene	37	< 37 U
87-86-5	Pentachlorophenol	180	< 180 U
85-01-8	**Phenanthrene**	**37**	**75**
86-74-8	Carbazole	37	< 37 U
120-12-7	**Anthracene**	**37**	**41**
84-74-2	Di-n-Butylphthalate	37	< 37 U
206-44-0	**Fluoranthene**	**37**	**140**
129-00-0	**Pyrene**	**37**	**260**
85-68-7	Butylbenzylphthalate	37	< 37 U
91-94-1	3,3'-Dichlorobenzidine	180	< 180 U
56-55-3	**Benzo(a)anthracene**	**37**	**82**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**37**	**440**
218-01-9	**Chrysene**	**37**	**130**
117-84-0	Di-n-Octyl phthalate	37	< 37 U
205-99-2	**Benzo(b)fluoranthene**	**37**	**140**
207-08-9	**Benzo(k)fluoranthene**	**37**	**140**
50-32-8	**Benzo(a)pyrene**	**37**	**160**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**37**	**74**
53-70-3	**Dibenz(a,h)anthracene**	**37**	**39**
191-24-2	**Benzo(g,h,i)perylene**	**37**	**74**
62-53-3	Aniline	37	< 37 U
90-12-0	1-Methylnaphthalene	37	< 37 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	83.2%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	71.2%	2-Fluorophenol	69.3%
2,4,6-Tribromophenol	79.7%	d4-2-Chlorophenol	72.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC47-2-3.6
SAMPLE

Lab Sample ID: QN38L
LIMS ID: 10-6077
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 22:40
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 34.2%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC47-2-3.6
SAMPLE

Lab Sample ID: QN38L
LIMS ID: 10-6077
Matrix: Sediment
Date Analyzed: 03/23/10 22:40

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**30**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**19 J**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**69**
129-00-0	**Pyrene**	**20**	**120**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**36**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**90**
218-01-9	**Chrysene**	**20**	**50**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**39**
207-08-9	**Benzo(k)fluoranthene**	**20**	**39**
50-32-8	**Benzo(a)pyrene**	**20**	**44**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**20**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**25**
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	73.2%
d14-p-Terphenyl	70.0%	d4-1,2-Dichlorobenzene	58.4%
d5-Phenol	68.5%	2-Fluorophenol	70.1%
2,4,6-Tribromophenol	85.1%	d4-2-Chlorophenol	69.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC49-0-1.6
SAMPLE

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 23:12
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	**1,4-Dichlorobenzene**	**19**	**14 J**
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	**4-Methylphenol**	**19**	**14 J**
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**10 J**
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**10 J**
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC49-0-1.6
SAMPLE

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Date Analyzed: 03/23/10 23:12

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**45**
86-74-8	Carbazole	19	< 19 U
120-12-7	**Anthracene**	**19**	**21**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**67**
129-00-0	**Pyrene**	**19**	**180**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**37**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**1,800 E**
218-01-9	**Chrysene**	**19**	**58**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**76**
207-08-9	**Benzo(k)fluoranthene**	**19**	**76**
50-32-8	**Benzo(a)pyrene**	**19**	**84**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**37**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**17 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**38**
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.8%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	64.0%	d4-1,2-Dichlorobenzene	53.2%
d5-Phenol	63.2%	2-Fluorophenol	58.9%
2,4,6-Tribromophenol	77.9%	d4-2-Chlorophenol	64.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC49-0-1.6
DILUTION

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 21:06
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
111-44-4	Bis-(2-Chloroethyl) Ether	58	< 58 U
95-57-8	2-Chlorophenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58	< 58 U
106-44-5	4-Methylphenol	58	< 58 U
621-64-7	N-Nitroso-Di-N-Propylamine	290	< 290 U
67-72-1	Hexachloroethane	58	< 58 U
98-95-3	Nitrobenzene	58	< 58 U
78-59-1	Isophorone	58	< 58 U
88-75-5	2-Nitrophenol	290	< 290 U
105-67-9	2,4-Dimethylphenol	58	< 58 U
65-85-0	Benzoic Acid	580	< 580 U
111-91-1	bis(2-Chloroethoxy) Methane	58	< 58 U
120-83-2	2,4-Dichlorophenol	290	< 290 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	Naphthalene	58	< 58 U
106-47-8	4-Chloroaniline	290	< 290 U
87-68-3	Hexachlorobutadiene	58	< 58 U
59-50-7	4-Chloro-3-methylphenol	290	< 290 U
91-57-6	2-Methylnaphthalene	58	< 58 U
77-47-4	Hexachlorocyclopentadiene	290	< 290 U
88-06-2	2,4,6-Trichlorophenol	290	< 290 U
95-95-4	2,4,5-Trichlorophenol	290	< 290 U
91-58-7	2-Chloronaphthalene	58	< 58 U
88-74-4	2-Nitroaniline	290	< 290 U
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
99-09-2	3-Nitroaniline	290	< 290 U
83-32-9	Acenaphthene	58	< 58 U
51-28-5	2,4-Dinitrophenol	580	< 580 U
100-02-7	4-Nitrophenol	290	< 290 U
132-64-9	Dibenzofuran	58	< 58 U
606-20-2	2,6-Dinitrotoluene	290	< 290 U
121-14-2	2,4-Dinitrotoluene	290	< 290 U
84-66-2	Diethylphthalate	58	< 58 U
7005-72-3	4-Chlorophenyl-phenylether	58	< 58 U
86-73-7	Fluorene	58	< 58 U
100-01-6	4-Nitroaniline	290	< 290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580	< 580 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC49-0-1.6
DILUTION

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Date Analyzed: 03/24/10 21:06

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
101-55-3	4-Bromophenyl-phenylether	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	290	< 290 U
85-01-8	**Phenanthrene**	**58**	**46 J**
86-74-8	Carbazole	58	< 58 U
120-12-7	Anthracene	58	< 58 U
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	**Fluoranthene**	**58**	**70**
129-00-0	**Pyrene**	**58**	**200**
85-68-7	Butylbenzylphthalate	58	< 58 U
91-94-1	3,3'-Dichlorobenzidine	290	< 290 U
56-55-3	**Benzo(a)anthracene**	**58**	**42 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**58**	**2,000**
218-01-9	**Chrysene**	**58**	**61**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
205-99-2	**Benzo(b)fluoranthene**	**58**	**75**
207-08-9	**Benzo(k)fluoranthene**	**58**	**75**
50-32-8	**Benzo(a)pyrene**	**58**	**80**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**41 J**
53-70-3	Dibenz(a,h)anthracene	58	< 58 U
191-24-2	**Benzo(g,h,i)perylene**	**58**	**49 J**
62-53-3	Aniline	58	< 58 U
90-12-0	1-Methylnaphthalene	58	< 58 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.1%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	69.0%	d4-1,2-Dichlorobenzene	56.9%
d5-Phenol	68.2%	2-Fluorophenol	61.9%
2,4,6-Tribromophenol	69.8%	d4-2-Chlorophenol	68.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC49-1.6-4
SAMPLE

Lab Sample ID: QN38N
LIMS ID: 10-6079
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 23:44
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC49-1.6-4
SAMPLE

Lab Sample ID: QN38N
LIMS ID: 10-6079
Matrix: Sediment
Date Analyzed: 03/23/10 23:44

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**11 J**
129-00-0	**Pyrene**	**20**	**20**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**17 J**
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**8.8 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**8.8 J**
50-32-8	**Benzo(a)pyrene**	**20**	**10 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	62.0%
d14-p-Terphenyl	60.8%	d4-1,2-Dichlorobenzene	52.4%
d5-Phenol	56.8%	2-Fluorophenol	43.7%
2,4,6-Tribromophenol	71.5%	d4-2-Chlorophenol	58.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC56-0-2
SAMPLE

Lab Sample ID: QN38O
LIMS ID: 10-6080
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 00:16
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 22.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC56-0-2
SAMPLE

Lab Sample ID: QN38O
LIMS ID: 10-6080
Matrix: Sediment
Date Analyzed: 03/24/10 00:16

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**16 J**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	60.8%
d5-Phenol	66.9%	2-Fluorophenol	67.2%
2,4,6-Tribromophenol	74.1%	d4-2-Chlorophenol	67.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC56-2-4
SAMPLE

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 00:47
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 22.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC56-2-4
SAMPLE

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Date Analyzed: 03/24/10 00:47

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**15 J**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in μg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	65.6%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	65.6%	2-Fluorophenol	60.5%
2,4,6-Tribromophenol	73.6%	d4-2-Chlorophenol	64.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC62-0-2
SAMPLE

Lab Sample ID: QN38Q
LIMS ID: 10-6082
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 16:13
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC62-0-2
SAMPLE

Lab Sample ID: QN38Q
LIMS ID: 10-6082
Matrix: Sediment
Date Analyzed: 03/24/10 16:13

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**17 J**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	65.6%
d14-p-Terphenyl	70.0%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	68.5%	2-Fluorophenol	65.3%
2,4,6-Tribromophenol	73.1%	d4-2-Chlorophenol	69.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC62-2-3.3
SAMPLE

Lab Sample ID: QN38R
LIMS ID: 10-6083
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 16:46
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 26.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	95	< 95 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	95	< 95 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	95	< 95 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	Naphthalene	19	< 19 U
106-47-8	4-Chloroaniline	95	< 95 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	95	< 95 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	95	< 95 U
88-06-2	2,4,6-Trichlorophenol	95	< 95 U
95-95-4	2,4,5-Trichlorophenol	95	< 95 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	95	< 95 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	95	< 95 U
83-32-9	Acenaphthene	19	< 19 U
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	95	< 95 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	95	< 95 U
121-14-2	2,4-Dinitrotoluene	95	< 95 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	Fluorene	19	< 19 U
100-01-6	4-Nitroaniline	95	< 95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC62-2-3.3
SAMPLE

Lab Sample ID: QN38R
LIMS ID: 10-6083
Matrix: Sediment
Date Analyzed: 03/24/10 16:46

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	95	< 95 U
85-01-8	Phenanthrene	19	< 19 U
86-74-8	Carbazole	19	< 19 U
120-12-7	Anthracene	19	< 19 U
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	Fluoranthene	19	< 19 U
129-00-0	Pyrene	19	< 19 U
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	95	< 95 U
56-55-3	Benzo(a)anthracene	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**19 J**
218-01-9	Chrysene	19	< 19 U
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	Benzo(b)fluoranthene	19	< 19 U
207-08-9	Benzo(k)fluoranthene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	19	< 19 U
62-53-3	Aniline	19	< 19 U
90-12-0	1-Methylnaphthalene	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	69.6%	d4-1,2-Dichlorobenzene	56.0%
d5-Phenol	66.4%	2-Fluorophenol	61.9%
2,4,6-Tribromophenol	70.1%	d4-2-Chlorophenol	65.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
EW10-SC36-0.9-3	58.0%	63.2%	64.0%	52.4%	57.1%	57.1%	69.1%	59.7%	0
EW10-SC36-3-5	58.4%	60.8%	70.8%	51.6%	58.7%	56.0%	61.6%	59.2%	0
EW10-SC39-0-2	59.2%	65.2%	63.6%	52.0%	59.7%	57.6%	52.8%	60.5%	0
EW10-SC39-2-3.4	64.0%	64.0%	75.6%	57.2%	63.5%	61.9%	41.3%	65.1%	0
EW10-SC40-0-1	66.8%	71.2%	71.6%	55.2%	65.3%	64.8%	86.1%	66.9%	0
EW10-SC40-1-4	61.6%	68.0%	72.0%	52.0%	63.2%	61.3%	81.6%	64.3%	0
MB-031710	78.4%	82.0%	80.8%	80.0%	79.2%	76.0%	72.3%	85.6%	0
LCS-031710	65.2%	70.8%	81.6%	62.0%	72.0%	65.6%	75.2%	68.8%	0
SRM-SQ-1	65.2%	66.0%	70.0%	55.6%	66.9%	64.0%	77.3%	67.5%	0
EW10-SC42-0-2	67.6%	71.6%	67.6%	56.0%	64.8%	65.1%	81.1%	66.4%	0
EW10-SC42-0-2 MS	69.2%	75.2%	80.0%	61.6%	76.0%	71.7%	88.8%	72.3%	0
EW10-SC42-0-2 MSD	66.0%	75.2%	66.4%	60.4%	71.7%	63.5%	73.3%	67.7%	0
EW10-SC42-2-4	67.2%	74.4%	73.2%	52.8%	71.2%	66.9%	80.3%	70.7%	0
EW10-SC44-0-2	62.8%	67.2%	71.6%	58.4%	63.7%	62.4%	67.7%	65.6%	0
EW10-SC44-2-4	56.4%	63.2%	63.2%	54.0%	58.9%	55.2%	65.3%	59.7%	0
EW10-SC47-0-2	76.4%	83.2%	72.0%	62.0%	71.2%	69.3%	79.7%	72.0%	0
EW10-SC47-2-3.6	68.8%	73.2%	70.0%	58.4%	68.5%	70.1%	85.1%	69.1%	0
EW10-SC49-0-1.6	60.8%	69.6%	64.0%	53.2%	63.2%	58.9%	77.9%	64.3%	0
EW10-SC49-0-1.6 DL	64.1%	72.8%	69.0%	56.9%	68.2%	61.9%	69.8%	68.1%	0
EW10-SC49-1.6-4	57.6%	62.0%	60.8%	52.4%	56.8%	43.7%	71.5%	58.9%	0
EW10-SC56-0-2	68.8%	70.4%	72.0%	60.8%	66.9%	67.2%	74.1%	67.7%	0
EW10-SC56-2-4	68.8%	65.2%	65.6%	57.2%	65.6%	60.5%	73.6%	64.8%	0
EW10-SC62-0-2	64.8%	65.6%	70.0%	58.0%	68.5%	65.3%	73.1%	69.1%	0
EW10-SC62-2-3.3	62.4%	64.0%	69.6%	56.0%	66.4%	61.9%	70.1%	65.3%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(34-100)	(26-100)
(FBP) = 2-Fluorobiphenyl	(39-100)	(32-100)
(TPH) = d14-p-Terphenyl	(49-112)	(25-116)
(DCB) = d4-1,2-Dichlorobenzene	(32-100)	(24-100)
(PHL) = d5-Phenol	(10-100)	(10-100)
(2FP) = 2-Fluorophenol	(26-100)	(21-100)
(TBP) = 2,4,6-Tribromophenol	(43-108)	(33-118)
(2CP) = d4-2-Chlorophenol	(39-100)	(30-100)

Prep Method: SW3550B
Log Number Range: 10-6066 to 10-6083

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
MS/MSD

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted MS/MSD: 03/17/10

Date Analyzed MS: 03/23/10 19:29
MSD: 03/23/10 20:01
Instrument/Analyst MS: NT6/JZ
MSD: NT6/JZ
GPC Cleanup: Yes

Sample Amount MS: 9.42 g-dry-wt
MSD: 9.26 g-dry-wt
Final Extract Volume MS: 0.5 mL
MSD: 0.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Percent Moisture: 47.1 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 52.8 U	919	1330	69.1%	900	1350	66.7%	2.1%
Bis-(2-Chloroethyl) Ether	< 52.8 U	857	1330	64.4%	930	1350	68.9%	8.2%
2-Chlorophenol	< 52.8 U	867	1330	65.2%	844	1350	62.5%	2.7%
1,3-Dichlorobenzene	< 52.8 U	836	1330	62.9%	815	1350	60.4%	2.5%
1,4-Dichlorobenzene	< 52.8 U	858	1330	64.5%	839	1350	62.1%	2.2%
Benzyl Alcohol	< 52.8 U	< 53.1 U	2650	NA	< 54.0 U	2700	NA	NA
1,2-Dichlorobenzene	< 52.8 U	876	1330	65.9%	860	1350	63.7%	1.8%
2-Methylphenol	< 52.8 U	942	1330	70.8%	900	1350	66.7%	4.6%
2,2'-Oxybis(1-Chloropropane	< 52.8 U	884	1330	66.5%	862	1350	63.9%	2.5%
4-Methylphenol	< 52.8 U	1910	2650	72.1%	1870	2700	69.3%	2.1%
N-Nitroso-Di-N-Propylamine	< 264 U	1010	1330	75.9%	970	1350	71.9%	4.0%
Hexachloroethane	< 52.8 U	852	1330	64.1%	819	1350	60.7%	3.9%
Nitrobenzene	< 52.8 U	1150	1330	86.5%	1130	1350	83.7%	1.8%
Isophorone	< 52.8 U	1040	1330	78.2%	977	1350	72.4%	6.2%
2-Nitrophenol	< 264 U	872	1330	65.6%	854	1350	63.3%	2.1%
2,4-Dimethylphenol	< 52.8 U	944	1330	71.0%	943	1350	69.9%	0.1%
Benzoic Acid	< 528 U	435 J	3980	10.9%	150 J	4050	3.7%	97.4%
bis(2-Chloroethoxy) Methane	< 52.8 U	994	1330	74.7%	935	1350	69.3%	6.1%
2,4-Dichlorophenol	< 264 U	977	1330	73.5%	967	1350	71.6%	1.0%
1,2,4-Trichlorobenzene	< 52.8 U	906	1330	68.1%	900	1350	66.7%	0.7%
Naphthalene	< 52.8 U	1010	1330	75.9%	988	1350	73.2%	2.2%
4-Chloroaniline	< 264 U	1030	3180	32.4%	1300	3240	40.1%	23.2%
Hexachlorobutadiene	< 52.8 U	884	1330	66.5%	861	1350	63.8%	2.6%
4-Chloro-3-methylphenol	< 264 U	1070	1330	80.5%	994	1350	73.6%	7.4%
2-Methylnaphthalene	< 52.8 U	1040	1330	78.2%	999	1350	74.0%	4.0%
Hexachlorocyclopentadiene	< 264 U	674 Q	3980	16.9%	691 Q	4050	17.1%	2.5%
2,4,6-Trichlorophenol	< 264 U	947	1330	71.2%	921	1350	68.2%	2.8%
2,4,5-Trichlorophenol	< 264 U	989	1330	74.4%	1090	1350	80.7%	9.7%
2-Chloronaphthalene	< 52.8 U	1070	1330	80.5%	1080	1350	80.0%	0.9%
2-Nitroaniline	< 264 U	1240	1330	93.2%	1200	1350	88.9%	3.3%
Dimethylphthalate	< 52.8 U	1190	1330	89.5%	1150	1350	85.2%	3.4%
Acenaphthylene	< 52.8 U	1180	1330	88.7%	1160	1350	85.9%	1.7%
3-Nitroaniline	< 264 U	2010	3400	59.1%	2200	3460	63.6%	9.0%
Acenaphthene	< 52.8 U	1150	1330	86.5%	1140	1350	84.4%	0.9%
2,4-Dinitrophenol	< 528 U	2440	3980	61.3%	1830	4050	45.2%	28.6%
4-Nitrophenol	< 264 U	1460	1330	110%	1140	1350	84.4%	24.6%
Dibenzofuran	< 52.8 U	1110	1330	83.5%	1070	1350	79.3%	3.7%
2,6-Dinitrotoluene	< 264 U	1220	1330	91.7%	1200	1350	88.9%	1.7%
2,4-Dinitrotoluene	< 264 U	1330	1330	100%	1180	1350	87.4%	12.0%
Diethylphthalate	< 52.8 U	1330	1330	100%	1160	1350	85.9%	13.7%
4-Chlorophenyl-phenylether	< 52.8 U	1130	1330	85.0%	1020	1350	75.6%	10.2%
Fluorene	< 52.8 U	1210	1330	91.0%	1090	1350	80.7%	10.4%
4-Nitroaniline	< 264 U	660	1330	49.6%	633	1350	46.9%	4.2%
4,6-Dinitro-2-Methylphenol	< 528 U	2480	3980	62.3%	2100	4050	51.9%	16.6%
N-Nitrosodiphenylamine	< 52.8 U	1130	1330	85.0%	1150	1350	85.2%	1.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
MS/MSD

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed MS: 03/23/10 19:29
MSD: 03/23/10 20:01

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 52.8 U	1030	1330	77.4%	989	1350	73.3%	4.1%
Hexachlorobenzene	< 52.8 U	1070	1330	80.5%	980	1350	72.6%	8.8%
Pentachlorophenol	< 264 U	< 265 U	1330	NA	< 270 U	1350	NA	NA
Phenanthrene	42.8 J	1220	1330	88.5%	1200	1350	85.7%	1.7%
Carbazole	< 52.8 U	1200	1330	90.2%	1180	1350	87.4%	1.7%
Anthracene	40.7 J	1200	1330	87.2%	1170	1350	83.7%	2.5%
Di-n-Butylphthalate	< 52.8 U	1230	1330	92.5%	1230	1350	91.1%	0.0%
Fluoranthene	195	1420	1330	92.1%	1440	1350	92.2%	1.4%
Pyrene	229	1470	1330	93.3%	1260	1350	76.4%	15.4%
Butylbenzylphthalate	< 52.8 U	1200	1330	90.2%	1090	1350	80.7%	9.6%
3,3'-Dichlorobenzidine	< 264 U	809	3400	23.8%	1310	3460	37.9%	47.3%
Benzo(a)anthracene	67.1	1240	1330	88.2%	1210	1350	84.7%	2.4%
bis(2-Ethylhexyl)phthalate	450	1740	1330	97.0%	1620	1350	86.7%	7.1%
Chrysene	95.0	1330	1330	92.9%	1300	1350	89.3%	2.3%
Di-n-Octyl phthalate	< 52.8 U	1230	1330	92.5%	1180	1350	87.4%	4.1%
Benzo(b)fluoranthene	73.9	1230	1330	86.9%	1190	1350	82.7%	3.3%
Benzo(k)fluoranthene	73.9	1230	1330	86.9%	1190	1350	82.7%	3.3%
Benzo(a)pyrene	79.7	1290	1330	91.0%	1250	1350	86.7%	3.1%
Indeno(1,2,3-cd)pyrene	33.3 J	1200	1330	87.7%	1160	1350	83.5%	3.4%
Dibenz(a,h)anthracene	< 52.8 U	1220	1330	91.7%	1200	1350	88.9%	1.7%
Benzo(g,h,i)perylene	37.0 J	1120	1330	81.4%	1070	1350	76.5%	4.6%
Aniline	< 52.8 U	700	3240	21.6%	965	3290	29.3%	31.8%
1-Methylnaphthalene	< 52.8 U	1050	1330	78.9%	1030	1350	76.3%	1.9%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.
NA-No recovery due to high concentration of analyte in original sample and/or calculated negative recovery.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
MATRIX SPIKE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 19:29
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 9.42 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	53	---
111-44-4	Bis-(2-Chloroethyl) Ether	53	---
95-57-8	2-Chlorophenol	53	---
541-73-1	1,3-Dichlorobenzene	53	---
106-46-7	1,4-Dichlorobenzene	53	---
100-51-6	Benzyl Alcohol	53	---
95-50-1	1,2-Dichlorobenzene	53	---
95-48-7	2-Methylphenol	53	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	53	---
106-44-5	4-Methylphenol	53	---
621-64-7	N-Nitroso-Di-N-Propylamine	260	---
67-72-1	Hexachloroethane	53	---
98-95-3	Nitrobenzene	53	---
78-59-1	Isophorone	53	---
88-75-5	2-Nitrophenol	260	---
105-67-9	2,4-Dimethylphenol	53	---
65-85-0	Benzoic Acid	530	---
111-91-1	bis(2-Chloroethoxy) Methane	53	---
120-83-2	2,4-Dichlorophenol	260	---
120-82-1	1,2,4-Trichlorobenzene	53	---
91-20-3	Naphthalene	53	---
106-47-8	4-Chloroaniline	260	---
87-68-3	Hexachlorobutadiene	53	---
59-50-7	4-Chloro-3-methylphenol	260	---
91-57-6	2-Methylnaphthalene	53	---
77-47-4	Hexachlorocyclopentadiene	260	---
88-06-2	2,4,6-Trichlorophenol	260	---
95-95-4	2,4,5-Trichlorophenol	260	---
91-58-7	2-Chloronaphthalene	53	---
88-74-4	2-Nitroaniline	260	---
131-11-3	Dimethylphthalate	53	---
208-96-8	Acenaphthylene	53	---
99-09-2	3-Nitroaniline	260	---
83-32-9	Acenaphthene	53	---
51-28-5	2,4-Dinitrophenol	530	---
100-02-7	4-Nitrophenol	260	---
132-64-9	Dibenzofuran	53	---
606-20-2	2,6-Dinitrotoluene	260	---
121-14-2	2,4-Dinitrotoluene	260	---
84-66-2	Diethylphthalate	53	---
7005-72-3	4-Chlorophenyl-phenylether	53	---
86-73-7	Fluorene	53	---
100-01-6	4-Nitroaniline	260	---
534-52-1	4,6-Dinitro-2-Methylphenol	530	---

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
MATRIX SPIKE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed: 03/23/10 19:29

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	53	---
101-55-3	4-Bromophenyl-phenylether	53	---
118-74-1	Hexachlorobenzene	53	---
87-86-5	Pentachlorophenol	260	---
85-01-8	Phenanthrene	53	---
86-74-8	Carbazole	53	---
120-12-7	Anthracene	53	---
84-74-2	Di-n-Butylphthalate	53	---
206-44-0	Fluoranthene	53	---
129-00-0	Pyrene	53	---
85-68-7	Butylbenzylphthalate	53	---
91-94-1	3,3'-Dichlorobenzidine	260	---
56-55-3	Benzo(a)anthracene	53	---
117-81-7	bis(2-Ethylhexyl)phthalate	53	---
218-01-9	Chrysene	53	---
117-84-0	Di-n-Octyl phthalate	53	---
205-99-2	Benzo(b)fluoranthene	53	---
207-08-9	Benzo(k)fluoranthene	53	---
50-32-8	Benzo(a)pyrene	53	---
193-39-5	Indeno(1,2,3-cd)pyrene	53	---
53-70-3	Dibenz(a,h)anthracene	53	---
191-24-2	Benzo(g,h,i)perylene	53	---
62-53-3	Aniline	53	---
90-12-0	1-Methylnaphthalene	53	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	69.2%	2-Fluorobiphenyl	75.2%
d14-p-Terphenyl	80.0%	d4-1,2-Dichlorobenzene	61.6%
d5-Phenol	76.0%	2-Fluorophenol	71.7%
2,4,6-Tribromophenol	88.8%	d4-2-Chlorophenol	72.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
MATRIX SPIKE DUPLICATE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 20:01
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 9.26 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	54	---
111-44-4	Bis-(2-Chloroethyl) Ether	54	---
95-57-8	2-Chlorophenol	54	---
541-73-1	1,3-Dichlorobenzene	54	---
106-46-7	1,4-Dichlorobenzene	54	---
100-51-6	Benzyl Alcohol	54	---
95-50-1	1,2-Dichlorobenzene	54	---
95-48-7	2-Methylphenol	54	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	54	---
106-44-5	4-Methylphenol	54	---
621-64-7	N-Nitroso-Di-N-Propylamine	270	---
67-72-1	Hexachloroethane	54	---
98-95-3	Nitrobenzene	54	---
78-59-1	Isophorone	54	---
88-75-5	2-Nitrophenol	270	---
105-67-9	2,4-Dimethylphenol	54	---
65-85-0	Benzoic Acid	540	---
111-91-1	bis(2-Chloroethoxy) Methane	54	---
120-83-2	2,4-Dichlorophenol	270	---
120-82-1	1,2,4-Trichlorobenzene	54	---
91-20-3	Naphthalene	54	---
106-47-8	4-Chloroaniline	270	---
87-68-3	Hexachlorobutadiene	54	---
59-50-7	4-Chloro-3-methylphenol	270	---
91-57-6	2-Methylnaphthalene	54	---
77-47-4	Hexachlorocyclopentadiene	270	---
88-06-2	2,4,6-Trichlorophenol	270	---
95-95-4	2,4,5-Trichlorophenol	270	---
91-58-7	2-Chloronaphthalene	54	---
88-74-4	2-Nitroaniline	270	---
131-11-3	Dimethylphthalate	54	---
208-96-8	Acenaphthylene	54	---
99-09-2	3-Nitroaniline	270	---
83-32-9	Acenaphthene	54	---
51-28-5	2,4-Dinitrophenol	540	---
100-02-7	4-Nitrophenol	270	---
132-64-9	Dibenzofuran	54	---
606-20-2	2,6-Dinitrotoluene	270	---
121-14-2	2,4-Dinitrotoluene	270	---
84-66-2	Diethylphthalate	54	---
7005-72-3	4-Chlorophenyl-phenylether	54	---
86-73-7	Fluorene	54	---
100-01-6	4-Nitroaniline	270	---
534-52-1	4,6-Dinitro-2-Methylphenol	540	---

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SC42-0-2
MATRIX SPIKE DUPLICATE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed: 03/23/10 20:01

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	54	---
101-55-3	4-Bromophenyl-phenylether	54	---
118-74-1	Hexachlorobenzene	54	---
87-86-5	Pentachlorophenol	270	---
85-01-8	Phenanthrene	54	---
86-74-8	Carbazole	54	---
120-12-7	Anthracene	54	---
84-74-2	Di-n-Butylphthalate	54	---
206-44-0	Fluoranthene	54	---
129-00-0	Pyrene	54	---
85-68-7	Butylbenzylphthalate	54	---
91-94-1	3,3'-Dichlorobenzidine	270	---
56-55-3	Benzo(a)anthracene	54	---
117-81-7	bis(2-Ethylhexyl)phthalate	54	---
218-01-9	Chrysene	54	---
117-84-0	Di-n-Octyl phthalate	54	---
205-99-2	Benzo(b)fluoranthene	54	---
207-08-9	Benzo(k)fluoranthene	54	---
50-32-8	Benzo(a)pyrene	54	---
193-39-5	Indeno(1,2,3-cd)pyrene	54	---
53-70-3	Dibenz(a,h)anthracene	54	---
191-24-2	Benzo(g,h,i)perylene	54	---
62-53-3	Aniline	54	---
90-12-0	1-Methylnaphthalene	54	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	75.2%
d14-p-Terphenyl	66.4%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	71.7%	2-Fluorophenol	63.5%
2,4,6-Tribromophenol	73.3%	d4-2-Chlorophenol	67.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: SQ-1 031710
STANDARD REFERENCE

Lab Sample ID: SRM-031710
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 14:38
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 18.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 40.2%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**28**	**84**
111-44-4	Bis-(2-Chloroethyl) Ether	28	< 28 U
95-57-8	2-Chlorophenol	28	< 28 U
541-73-1	**1,3-Dichlorobenzene**	**28**	**20 J**
106-46-7	1,4-Dichlorobenzene	28	< 28 U
100-51-6	Benzyl Alcohol	28	< 28 U
95-50-1	1,2-Dichlorobenzene	28	< 28 U
95-48-7	2-Methylphenol	28	< 28 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	28	< 28 U
106-44-5	**4-Methylphenol**	**28**	**48**
621-64-7	N-Nitroso-Di-N-Propylamine	140	< 140 U
67-72-1	Hexachloroethane	28	< 28 U
98-95-3	Nitrobenzene	28	< 28 U
78-59-1	**Isophorone**	**28**	**77**
88-75-5	2-Nitrophenol	140	< 140 U
105-67-9	2,4-Dimethylphenol	28	< 28 U
65-85-0	**Benzoic Acid**	**280**	**260 J**
111-91-1	bis(2-Chloroethoxy) Methane	28	< 28 U
120-83-2	2,4-Dichlorophenol	140	< 140 U
120-82-1	1,2,4-Trichlorobenzene	28	< 28 U
91-20-3	**Naphthalene**	**28**	**54**
106-47-8	4-Chloroaniline	140	< 140 U
87-68-3	Hexachlorobutadiene	28	< 28 U
59-50-7	4-Chloro-3-methylphenol	140	< 140 U
91-57-6	**2-Methylnaphthalene**	**28**	**69**
77-47-4	Hexachlorocyclopentadiene	140	< 140 U
88-06-2	2,4,6-Trichlorophenol	140	< 140 U
95-95-4	2,4,5-Trichlorophenol	140	< 140 U
91-58-7	2-Chloronaphthalene	28	< 28 U
88-74-4	2-Nitroaniline	140	< 140 U
131-11-3	Dimethylphthalate	28	< 28 U
208-96-8	Acenaphthylene	28	< 28 U
99-09-2	3-Nitroaniline	140	< 140 U
83-32-9	**Acenaphthene**	**28**	**63**
51-28-5	2,4-Dinitrophenol	280	< 280 U
100-02-7	4-Nitrophenol	140	< 140 U
132-64-9	Dibenzofuran	28	< 28 U
606-20-2	2,6-Dinitrotoluene	140	< 140 U
121-14-2	2,4-Dinitrotoluene	140	< 140 U
84-66-2	Diethylphthalate	28	< 28 U
7005-72-3	**4-Chlorophenyl-phenylether**	**28**	**63**
86-73-7	**Fluorene**	**28**	**62**
100-01-6	4-Nitroaniline	140	< 140 U
534-52-1	4,6-Dinitro-2-Methylphenol	280	< 280 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: SQ-1 031710
STANDARD REFERENCE

Lab Sample ID: SRM-031710
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed: 03/23/10 14:38

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	28	< 28 U
101-55-3	**4-Bromophenyl-phenylether**	**28**	**130**
118-74-1	Hexachlorobenzene	28	< 28 U
87-86-5	**Pentachlorophenol**	**140**	**380**
85-01-8	**Phenanthrene**	**28**	**94**
86-74-8	Carbazole	28	< 28 U
120-12-7	**Anthracene**	**28**	**60**
84-74-2	Di-n-Butylphthalate	28	< 28 U
206-44-0	**Fluoranthene**	**28**	**87**
129-00-0	**Pyrene**	**28**	**82**
85-68-7	Butylbenzylphthalate	28	< 28 U
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**28**	**59**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**28**	**61**
218-01-9	**Chrysene**	**28**	**64**
117-84-0	Di-n-Octyl phthalate	28	< 28 U
205-99-2	**Benzo(b)fluoranthene**	**28**	**57**
207-08-9	Benzo(k)fluoranthene	28	< 28 U
50-32-8	**Benzo(a)pyrene**	**28**	**56**
193-39-5	Indeno(1,2,3-cd)pyrene	28	< 28 U
53-70-3	**Dibenz(a,h)anthracene**	**28**	**39**
191-24-2	**Benzo(g,h,i)perylene**	**28**	**41**
62-53-3	Aniline	28	< 28 U
90-12-0	**1-Methylnaphthalene**	**28**	**72**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.2%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	70.0%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	66.9%	2-Fluorophenol	64.0%
2,4,6-Tribromophenol	77.3%	d4-2-Chlorophenol	67.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: LCS-031710
LAB CONTROL

Lab Sample ID: LCS-031710
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 14:05
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.0 g
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Phenol	354	500	70.8%
Bis-(2-Chloroethyl) Ether	339	500	67.8%
2-Chlorophenol	308	500	61.6%
1,3-Dichlorobenzene	305	500	61.0%
1,4-Dichlorobenzene	315	500	63.0%
Benzyl Alcohol	507	1000	50.7%
1,2-Dichlorobenzene	320	500	64.0%
2-Methylphenol	308	500	61.6%
2,2'-Oxybis(1-Chloropropane)	310	500	62.0%
4-Methylphenol	660	1000	66.0%
N-Nitroso-Di-N-Propylamine	334	500	66.8%
Hexachloroethane	316	500	63.2%
Nitrobenzene	323	500	64.6%
Isophorone	354	500	70.8%
2-Nitrophenol	316	500	63.2%
2,4-Dimethylphenol	274	500	54.8%
Benzoic Acid	1100	1500	73.3%
bis(2-Chloroethoxy) Methane	343	500	68.6%
2,4-Dichlorophenol	339	500	67.8%
1,2,4-Trichlorobenzene	323	500	64.6%
Naphthalene	347	500	69.4%
4-Chloroaniline	471	1200	39.2%
Hexachlorobutadiene	309	500	61.8%
4-Chloro-3-methylphenol	366	500	73.2%
2-Methylnaphthalene	346	500	69.2%
Hexachlorocyclopentadiene	800 Q	1500	53.3%
2,4,6-Trichlorophenol	357	500	71.4%
2,4,5-Trichlorophenol	363	500	72.6%
2-Chloronaphthalene	372	500	74.4%
2-Nitroaniline	451	500	90.2%
Dimethylphthalate	411	500	82.2%
Acenaphthylene	392	500	78.4%
3-Nitroaniline	847	1280	66.2%
Acenaphthene	375	500	75.0%
2,4-Dinitrophenol	1240	1500	82.7%
4-Nitrophenol	289	500	57.8%
Dibenzofuran	365	500	73.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: LCS-031710
LAB CONTROL

Lab Sample ID: LCS-031710
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed: 03/23/10 14:05

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Analyte	Lab Control		Spike Added	Recovery
2,6-Dinitrotoluene	422		500	84.4%
2,4-Dinitrotoluene	443		500	88.6%
Diethylphthalate	436		500	87.2%
4-Chlorophenyl-phenylether	360		500	72.0%
Fluorene	393		500	78.6%
4-Nitroaniline	307		500	61.4%
4,6-Dinitro-2-Methylphenol	1040		1500	69.3%
N-Nitrosodiphenylamine	375		500	75.0%
4-Bromophenyl-phenylether	347		500	69.4%
Hexachlorobenzene	344		500	68.8%
Pentachlorophenol	165	Q	500	33.0%
Phenanthrene	399		500	79.8%
Carbazole	419		500	83.8%
Anthracene	374		500	74.8%
Di-n-Butylphthalate	460		500	92.0%
Fluoranthene	436		500	87.2%
Pyrene	444		500	88.8%
Butylbenzylphthalate	458		500	91.6%
3,3'-Dichlorobenzidine	335		1280	26.2%
Benzo(a)anthracene	427		500	85.4%
bis(2-Ethylhexyl)phthalate	448		500	89.6%
Chrysene	434		500	86.8%
Di-n-Octyl phthalate	434		500	86.8%
Benzo(b)fluoranthene	456		500	91.2%
Benzo(k)fluoranthene	499		500	99.8%
Benzo(a)pyrene	418		500	83.6%
Indeno(1,2,3-cd)pyrene	473		500	94.6%
Dibenz(a,h)anthracene	495		500	99.0%
Benzo(g,h,i)perylene	435		500	87.0%
Aniline	406		1220	33.3%
1-Methylnaphthalene	361		500	72.2%

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.2%
2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	81.6%
d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	72.0%
2-Fluorophenol	65.6%
2,4,6-Tribromophenol	75.2%
d4-2-Chlorophenol	68.8%

Reported in µg/kg (ppb)

FORM III

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QN38MBS1

Lab Name: ANALYTICAL RESOURCES, INC
Client: WINDWARD

ARI Job No: QN38
Project: EW SUBSURFACE SEDIME

Lab File ID: 03231012
Date Extracted: 03/17/10

Instrument ID: NT6
Date Analyzed: 03/23/10

Matrix: SOLID
Time Analyzed: 1856

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QN38LCSS1	QN38LCSS1	03231003	03/23/10
02	SQ-1	QN38SRM1	03231004	03/23/10
03	EW10-SC36-0.9-3	QN38A	03231005	03/23/10
04	EW10-SC36-3-5	QN38B	03231006	03/23/10
05	EW10-SC39-0-2	QN38C	03231007	03/23/10
06	EW10-SC39-2-3.4	QN38D	03231008	03/23/10
07	EW10-SC40-0-1	QN38E	03231009	03/23/10
08	EW10-SC40-1-4	QN38F	03231010	03/23/10
09	EW10-SC42-0-2	QN38G	03231011	03/23/10
10	EW10-SC42-0-2 MS	QN38GMS	03231013	03/23/10
11	EW10-SC42-0-2 MS	QN38GMSD	03231014	03/23/10
12	EW10-SC42-2-4	QN38H	03231015	03/23/10
13	EW10-SC44-0-2	QN38I	03231016	03/23/10
14	EW10-SC44-2-4	QN38J	03231017	03/23/10
15	EW10-SC47-0-2	QN38K	03231018	03/23/10
16	EW10-SC47-2-3.6	QN38L	03231019	03/23/10
17	EW10-SC49-0-1.6	QN38M	03231020	03/23/10
18	EW10-SC49-1.6-4	QN38N	03231021	03/23/10
19	EW10-SC56-0-2	QN38O	03231022	03/24/10
20	EW10-SC56-2-4	QN38P	03231023	03/24/10
21	EW10-SC62-0-2	QN38Q	03241002	03/24/10
22	EW10-SC62-0-2	QN38R	03241003	03/24/10
23	EW10-SC49-0-1.6	QN38M	03241011	03/24/10
24				
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: MB-031710
METHOD BLANK

Lab Sample ID: MB-031710
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/26/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/23/10 18:56
Instrument/Analyst: NT6/JZ
GPC Cleanup: Yes

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: MB-031710
METHOD BLANK

Lab Sample ID: MB-031710
LIMS ID: 10-6072
Matrix: Sediment
Date Analyzed: 03/23/10 18:56

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
NA

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	20	< 20 U
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	78.4%	2-Fluorobiphenyl	82.0%
d14-p-Terphenyl	80.8%	d4-1,2-Dichlorobenzene	80.0%
d5-Phenol	79.2%	2-Fluorophenol	76.0%
2,4,6-Tribromophenol	72.3%	d4-2-Chlorophenol	85.6%

FORM I

SIM SEMIVOLATILE ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC36-0.9-3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38A
LIMS ID: 10-6066
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 20:44
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.8	< 5.8 U
106-46-7	1,4-Dichlorobenzene	5.8	< 5.8 U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	14	< 14 U
85-68-7	Butylbenzylphthalate	14	< 14 U
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	5.8	< 5.8 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	73.2%	d5-Phenol	49.1%
2-Fluorophenol	49.1%	d4-2-Chlorophenol	51.5%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	72.0%
2,4,6-Tribromophenol	70.7%	d14-p-Terphenyl	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC36-0.9-3**
 DILUTION

Lab Sample ID: QN38A
LIMS ID: 10-6066
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 14:56
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	17	< 17 U
106-46-7	1,4-Dichlorobenzene	17	< 17 U
120-82-1	1,2,4-Trichlorobenzene	17	< 17 U
118-74-1	Hexachlorobenzene	17	< 17 U
87-68-3	Hexachlorobutadiene	17	< 17 U
131-11-3	Dimethylphthalate	44	< 44 U
85-68-7	Butylbenzylphthalate	44	< 44 U
95-48-7	2-Methylphenol	17	< 17 U
105-67-9	2,4-Dimethylphenol	17	< 17 U
86-30-6	N-Nitrosodiphenylamine	17	< 17 U
100-51-6	Benzyl Alcohol	87	< 87 U
87-86-5	Pentachlorophenol	87	< 87 U
95-50-1	1,2-Dichlorobenzene	17	< 17 U
621-64-7	N-Nitroso-Di-N-Propylamine	87	< 87 U
62-75-9	N-Nitrosodimethylamine	87	< 87 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	75.6%	d5-Phenol	52.8%
2-Fluorophenol	51.2%	d4-2-Chlorophenol	52.8%
d4-1,2-Dichlorobenzene	61.2%	d5-Nitrobenzene	74.4%
2,4,6-Tribromophenol	70.4%	d14-p-Terphenyl	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC36-3-5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38B
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 21:18
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.8	< 5.8 U
106-46-7	1,4-Dichlorobenzene	5.8	< 5.8 U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	14	< 14 U
85-68-7	Butylbenzylphthalate	14	< 14 U
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	5.8	< 5.8 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.0%	d5-Phenol	49.3%
2-Fluorophenol	51.5%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	64.4%	d5-Nitrobenzene	74.0%
2,4,6-Tribromophenol	52.0%	d14-p-Terphenyl	112%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC36-3-5**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38B
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 15:30
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	17	< 17 U
106-46-7	1,4-Dichlorobenzene	17	< 17 U
120-82-1	1,2,4-Trichlorobenzene	17	< 17 U
118-74-1	Hexachlorobenzene	17	< 17 U
87-68-3	Hexachlorobutadiene	17	< 17 U
131-11-3	Dimethylphthalate	43	< 43 U
85-68-7	Butylbenzylphthalate	43	< 43 U
95-48-7	2-Methylphenol	17	< 17 U
105-67-9	2,4-Dimethylphenol	17	< 17 U
86-30-6	N-Nitrosodiphenylamine	17	< 17 U
100-51-6	Benzyl Alcohol	87	< 87 U
87-86-5	Pentachlorophenol	87	< 87 U
95-50-1	1,2-Dichlorobenzene	17	< 17 U
621-64-7	N-Nitroso-Di-N-Propylamine	87	< 87 U
62-75-9	N-Nitrosodimethylamine	87	< 87 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	73.2%	d5-Phenol	52.0%
2-Fluorophenol	52.8%	d4-2-Chlorophenol	53.6%
d4-1,2-Dichlorobenzene	63.6%	d5-Nitrobenzene	66.0%
2,4,6-Tribromophenol	65.6%	d14-p-Terphenyl	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC39-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38C
LIMS ID: 10-6068
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 21:52
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.1%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	72.8%	d5-Phenol	51.2%
2-Fluorophenol	52.5%	d4-2-Chlorophenol	53.9%
d4-1,2-Dichlorobenzene	64.8%	d5-Nitrobenzene	71.2%
2,4,6-Tribromophenol	38.4%	d14-p-Terphenyl	99.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC39-0-2**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38C
LIMS ID: 10-6068
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 16:37
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 27.1%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	75.6%	d5-Phenol	52.8%
2-Fluorophenol	52.8%	d4-2-Chlorophenol	53.6%
d4-1,2-Dichlorobenzene	63.6%	d5-Nitrobenzene	67.2%
2,4,6-Tribromophenol	51.2%	d14-p-Terphenyl	91.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC39-2-3.4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38D
LIMS ID: 10-6069
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 22:26
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.8	< 5.8 U
106-46-7	1,4-Dichlorobenzene	5.8	< 5.8 U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	5.8	< 5.8 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.8%	d5-Phenol	49.9%
2-Fluorophenol	52.3%	d4-2-Chlorophenol	63.2%
d4-1,2-Dichlorobenzene	65.2%	d5-Nitrobenzene	71.6%
2,4,6-Tribromophenol	9.9%	d14-p-Terphenyl	113%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC39-2-3.4**
 DILUTION

Lab Sample ID: QN38D
LIMS ID: 10-6069
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 17:11
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	44	< 44 U
85-68-7	Butylbenzylphthalate	44	< 44 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	88	< 88 U
87-86-5	Pentachlorophenol	88	< 88 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	88	< 88 U
62-75-9	N-Nitrosodimethylamine	88	< 88 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	78.0%	d5-Phenol	57.6%
2-Fluorophenol	57.6%	d4-2-Chlorophenol	68.0%
d4-1,2-Dichlorobenzene	69.6%	d5-Nitrobenzene	73.2%
2,4,6-Tribromophenol	41.6%	d14-p-Terphenyl	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC40-0-1**
 SAMPLE

Lab Sample ID: QN38E
LIMS ID: 10-6070
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 23:01
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**8.5**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**21**
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.8%	d5-Phenol	55.5%
2-Fluorophenol	53.9%	d4-2-Chlorophenol	57.6%
d4-1,2-Dichlorobenzene	68.4%	d5-Nitrobenzene	75.2%
2,4,6-Tribromophenol	14.9%	d14-p-Terphenyl	114%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC40-0-1**
 DILUTION

Lab Sample ID: QN38E
LIMS ID: 10-6070
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 17:45
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	84.0%	d5-Phenol	56.8%
2-Fluorophenol	53.6%	d4-2-Chlorophenol	55.2%
d4-1,2-Dichlorobenzene	64.8%	d5-Nitrobenzene	69.6%
2,4,6-Tribromophenol	48.0%	d14-p-Terphenyl	90.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC40-1-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38F
LIMS ID: 10-6071
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 18:19
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.1**	**7.3**
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	80.4%	d5-Phenol	53.6%
2-Fluorophenol	49.3%	d4-2-Chlorophenol	53.6%
d4-1,2-Dichlorobenzene	63.2%	d5-Nitrobenzene	76.4%
2,4,6-Tribromophenol	59.7%	d14-p-Terphenyl	87.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 18:53
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**21**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**9.5**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**42**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	53.6%
2-Fluorophenol	45.6%	d4-2-Chlorophenol	52.3%
d4-1,2-Dichlorobenzene	63.2%	d5-Nitrobenzene	78.0%
2,4,6-Tribromophenol	56.3%	d14-p-Terphenyl	136%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-0-2**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized: B
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 12:31
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**27**
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	**Butylbenzylphthalate**	**45**	**61**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	89	< 89 U
87-86-5	Pentachlorophenol	89	< 89 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	89	< 89 U
62-75-9	N-Nitrosodimethylamine	89	< 89 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	82.8%	d5-Phenol	59.2%
2-Fluorophenol	55.2%	d4-2-Chlorophenol	60.8%
d4-1,2-Dichlorobenzene	69.6%	d5-Nitrobenzene	79.2%
2,4,6-Tribromophenol	65.6%	d14-p-Terphenyl	90.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38H
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 20:34
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 47.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**15**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**21**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	16	< 16 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	76.4%	d5-Phenol	53.9%
2-Fluorophenol	49.9%	d4-2-Chlorophenol	56.3%
d4-1,2-Dichlorobenzene	68.8%	d5-Nitrobenzene	79.6%
2,4,6-Tribromophenol	58.4%	d14-p-Terphenyl	127%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38H
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 14:12
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 47.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	**N-Nitrosodiphenylamine**	**18**	**22 M**
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.4%	d5-Phenol	50.4%
2-Fluorophenol	48.8%	d4-2-Chlorophenol	54.4%
d4-1,2-Dichlorobenzene	66.0%	d5-Nitrobenzene	76.8%
2,4,6-Tribromophenol	58.4%	d14-p-Terphenyl	82.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC44-0-2**
 SAMPLE

Lab Sample ID: QN38I
LIMS ID: 10-6074
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 21:08
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.8%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.1	< 6.1 U
106-46-7	1,4-Dichlorobenzene	6.1	< 6.1 U
120-82-1	1,2,4-Trichlorobenzene	6.1	< 6.1 U
118-74-1	Hexachlorobenzene	6.1	< 6.1 U
87-68-3	Hexachlorobutadiene	6.1	< 6.1 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.1	< 6.1 U
105-67-9	2,4-Dimethylphenol	6.1	< 6.1 U
86-30-6	N-Nitrosodiphenylamine	6.1	< 6.1 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.1	< 6.1 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.0%	d5-Phenol	43.7%
2-Fluorophenol	44.5%	d4-2-Chlorophenol	53.1%
d4-1,2-Dichlorobenzene	58.0%	d5-Nitrobenzene	65.6%
2,4,6-Tribromophenol	33.3%	d14-p-Terphenyl	87.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC44-0-2**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38I
LIMS ID: 10-6074
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 14:46
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 25.8%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	46	< 46 U
85-68-7	Butylbenzylphthalate	46	< 46 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	92	< 92 U
87-86-5	Pentachlorophenol	92	< 92 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	92	< 92 U
62-75-9	N-Nitrosodimethylamine	92	< 92 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.8%	d5-Phenol	46.4%
2-Fluorophenol	47.2%	d4-2-Chlorophenol	49.6%
d4-1,2-Dichlorobenzene	58.8%	d5-Nitrobenzene	63.6%
2,4,6-Tribromophenol	64.8%	d14-p-Terphenyl	84.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC44-2-4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38J
LIMS ID: 10-6075
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 21:41
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.0%	d5-Phenol	49.6%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	60.0%
d4-1,2-Dichlorobenzene	65.2%	d5-Nitrobenzene	74.0%
2,4,6-Tribromophenol	6.4%	d14-p-Terphenyl	99.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC44-2-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38J
LIMS ID: 10-6075
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 15:20
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.4%	d5-Phenol	50.4%
2-Fluorophenol	52.0%	d4-2-Chlorophenol	54.4%
d4-1,2-Dichlorobenzene	66.0%	d5-Nitrobenzene	72.0%
2,4,6-Tribromophenol	68.0%	d14-p-Terphenyl	96.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC47-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38K
LIMS ID: 10-6076
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 22:15
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 42.9%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**14**
106-46-7	**1,4-Dichlorobenzene**	**5.9**	**16**
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**37**
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	79.6%	d5-Phenol	53.6%
2-Fluorophenol	51.7%	d4-2-Chlorophenol	65.3%
d4-1,2-Dichlorobenzene	64.8%	d5-Nitrobenzene	75.2%
2,4,6-Tribromophenol	4.5%	d14-p-Terphenyl	93.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC47-2-3.6**
 SAMPLE

Lab Sample ID: QN38L
LIMS ID: 10-6077
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/25/10 22:48
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 34.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	78.8%	d5-Phenol	51.2%
2-Fluorophenol	49.9%	d4-2-Chlorophenol	62.1%
d4-1,2-Dichlorobenzene	64.8%	d5-Nitrobenzene	77.6%
2,4,6-Tribromophenol	0.0%	d14-p-Terphenyl	95.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC47-2-3.6**
Page 1 of 1 **DILUTION**

Lab Sample ID: QN38L
LIMS ID: 10-6077
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 15:54
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 34.2%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	< 18 U
106-46-7	1,4-Dichlorobenzene	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	Butylbenzylphthalate	45	< 45 U
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	18	< 18 U
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	80.4%	d5-Phenol	56.0%
2-Fluorophenol	56.8%	d4-2-Chlorophenol	59.2%
d4-1,2-Dichlorobenzene	67.2%	d5-Nitrobenzene	81.6%
2,4,6-Tribromophenol	72.0%	d14-p-Terphenyl	96.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC49-0-1.6**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 16:28
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**16**
106-46-7	**1,4-Dichlorobenzene**	**6.0**	**21**
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**17**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	64.0%	d5-Phenol	48.0%
2-Fluorophenol	45.1%	d4-2-Chlorophenol	49.9%
d4-1,2-Dichlorobenzene	57.2%	d5-Nitrobenzene	62.8%
2,4,6-Tribromophenol	59.2%	d14-p-Terphenyl	70.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC49-1.6-4**
 SAMPLE

Lab Sample ID: QN38N
LIMS ID: 10-6079
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 17:02
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.6%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.0%	d5-Phenol	52.8%
2-Fluorophenol	50.7%	d4-2-Chlorophenol	62.4%
d4-1,2-Dichlorobenzene	64.0%	d5-Nitrobenzene	72.0%
2,4,6-Tribromophenol	54.9%	d14-p-Terphenyl	94.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC56-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QN38O
LIMS ID: 10-6080
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 17:36
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 22.3%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	68.0%	d5-Phenol	48.8%
2-Fluorophenol	47.5%	d4-2-Chlorophenol	52.5%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	68.0%
2,4,6-Tribromophenol	39.2%	d14-p-Terphenyl	94.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC56-2-4**
 SAMPLE

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 18:10
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 22.6%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	70.8%	d5-Phenol	50.9%
2-Fluorophenol	49.9%	d4-2-Chlorophenol	61.1%
d4-1,2-Dichlorobenzene	64.4%	d5-Nitrobenzene	71.2%
2,4,6-Tribromophenol	28.8%	d14-p-Terphenyl	98.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC62-0-2**
 SAMPLE

Lab Sample ID: QN38Q
LIMS ID: 10-6082
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 18:43
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.8	< 5.8 U
106-46-7	1,4-Dichlorobenzene	5.8	< 5.8 U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8 U
118-74-1	Hexachlorobenzene	5.8	< 5.8 U
87-68-3	Hexachlorobutadiene	5.8	< 5.8 U
131-11-3	Dimethylphthalate	14	< 14 U
85-68-7	Butylbenzylphthalate	14	< 14 U
95-48-7	2-Methylphenol	5.8	< 5.8 U
105-67-9	2,4-Dimethylphenol	5.8	< 5.8 U
86-30-6	N-Nitrosodiphenylamine	5.8	< 5.8 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.8	< 5.8 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	66.0%	d5-Phenol	48.0%
2-Fluorophenol	47.2%	d4-2-Chlorophenol	57.6%
d4-1,2-Dichlorobenzene	60.8%	d5-Nitrobenzene	66.8%
2,4,6-Tribromophenol	19.7%	d14-p-Terphenyl	97.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS

Sample ID: EW10-SC62-2-3.3
SAMPLE

Lab Sample ID: QN38R
LIMS ID: 10-6083
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 19:17
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	5.9	< 5.9 U
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	69.2%	d5-Phenol	49.6%
2-Fluorophenol	49.1%	d4-2-Chlorophenol	59.7%
d4-1,2-Dichlorobenzene	62.4%	d5-Nitrobenzene	68.4%
2,4,6-Tribromophenol	19.7%	d14-p-Terphenyl	96.4%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client ID	FBP	PHL	FPH	CPL	DCB	NBZ	TBP	TER	TOT OU
EW10-SC36-0.9-3	73.2%	49.1%	49.1%	51.5%	60.0%	72.0%	70.7%	109%	0
EW10-SC36-0.9-3 DL	75.6%	52.8%	51.2%	52.8%	61.2%	74.4%	70.4%	101%	0
EW10-SC36-3-5	68.0%	49.3%	51.5%	52.5%	64.4%	74.0%	52.0%	112%	0
EW10-SC36-3-5 DL	73.2%	52.0%	52.8%	53.6%	63.6%	66.0%	65.6%	102%	0
EW10-SC39-0-2	72.8%	51.2%	52.5%	53.9%	64.8%	71.2%	38.4%	99.2%	0
EW10-SC39-0-2 DL	75.6%	52.8%	52.8%	53.6%	63.6%	67.2%	51.2%	91.2%	0
EW10-SC39-2-3.4	66.8%	49.9%	52.3%	63.2%	65.2%	71.6%	9.9%*	113%	1
EW10-SC39-2-3.4 DL	78.0%	57.6%	57.6%	68.0%	69.6%	73.2%	41.6%	109%	0
EW10-SC40-0-1	74.8%	55.5%	53.9%	57.6%	68.4%	75.2%	14.9%*	114%	1
EW10-SC40-0-1 DL	84.0%	56.8%	53.6%	55.2%	64.8%	69.6%	48.0%	90.0%	0
EW10-SC40-1-4	80.4%	53.6%	49.3%	53.6%	63.2%	76.4%	59.7%	87.2%	0
MB-031710	80.0%	56.3%	57.6%	58.4%	70.8%	80.4%	53.6%	95.6%	0
LCS-031710	65.6%	48.8%	49.6%	49.3%	57.2%	67.2%	59.2%	79.6%	0
SRM SQ-1	72.4%	57.3%	56.5%	57.6%	64.0%	78.0%	75.5%	81.2%	0
EW10-SC42-0-2	68.4%	53.6%	45.6%	52.3%	63.2%	78.0%	56.3%	136%	0
EW10-SC42-0-2 DL	82.8%	59.2%	55.2%	60.8%	69.6%	79.2%	65.6%	90.0%	0
EW10-SC42-0-2 MS	79.2%	55.2%	50.4%	57.6%	68.4%	78.0%	58.4%	87.6%	0
EW10-SC42-0-2 MSD	79.2%	54.4%	49.6%	56.0%	66.0%	78.0%	60.8%	90.0%	0
EW10-SC42-2-4	76.4%	53.9%	49.9%	56.3%	68.8%	79.6%	58.4%	127%	0
EW10-SC42-2-4 DL	74.4%	50.4%	48.8%	54.4%	66.0%	76.8%	58.4%	82.8%	0
EW10-SC44-0-2	68.0%	43.7%	44.5%	53.1%	58.0%	65.6%	33.3%	87.2%	0
EW10-SC44-0-2 DL	64.8%	46.4%	47.2%	49.6%	58.8%	63.6%	64.8%	84.0%	0
EW10-SC44-2-4	74.0%	49.6%	49.6%	60.0%	65.2%	74.0%	6.4%*	99.6%	1
EW10-SC44-2-4 DL	68.4%	50.4%	52.0%	54.4%	66.0%	72.0%	68.0%	96.0%	0
EW10-SC47-0-2	79.6%	53.6%	51.7%	65.3%	64.8%	75.2%	4.5%*	93.6%	1
EW10-SC47-2-3.6	78.8%	51.2%	49.9%	62.1%	64.8%	77.6%	0.0%*	95.2%	1
EW10-SC47-2-3.6 DL	80.4%	56.0%	56.8%	59.2%	67.2%	81.6%	72.0%	96.0%	0
EW10-SC49-0-1.6	64.0%	48.0%	45.1%	49.9%	57.2%	62.8%	59.2%	70.0%	0
EW10-SC49-1.6-4	74.0%	52.8%	50.7%	62.4%	64.0%	72.0%	54.9%	94.0%	0
EW10-SC56-0-2	68.0%	48.8%	47.5%	52.5%	60.0%	68.0%	39.2%	94.4%	0
EW10-SC56-2-4	70.8%	50.9%	49.9%	61.1%	64.4%	71.2%	28.8%*	98.4%	1
EW10-SC62-0-2	66.0%	48.0%	47.2%	57.6%	60.8%	66.8%	19.7%*	97.2%	1
EW10-SC62-2-3.3	69.2%	49.6%	49.1%	59.7%	62.4%	68.4%	19.7%*	96.4%	1

	LCS/MB LIMITS	QC LIMITS
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(FPH) = 2-Fluorophenol	(30-160)	(30-160)
(CPL) = d4-2-Chlorophenol	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(TER) = d14-p-Terphenyl	(30-160)	(30-160)

Prep Method: SW3550B
Log Number Range: 10-6066 to 10-6083
FORM-II SIM SW8270

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-0-2**
 MATRIX SPIKE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted MS/MSD: 03/17/10

Date Analyzed MS: 03/26/10 13:05
MSD: 03/26/10 13:39
Instrument/Analyst MS: NT2/VTS
MSD: NT2/VTS

Sample Amount MS: 16.5 g-dry-wt
MSD: 16.7 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 3.00
MSD: 3.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Dibenz(a,h)anthracene	20.8	76.4	152	36.6%	75.4	150	36.4%	1.3%
1,4-Dichlorobenzene	9.5	122	152	74.0%	115	150	70.3%	5.9%
1,2,4-Trichlorobenzene	< 6.0 U	138	152	90.8%	137	150	91.3%	0.7%
Hexachlorobenzene	< 6.0 U	147	152	96.7%	149	150	99.3%	1.4%
Hexachlorobutadiene	< 6.0 U	147	152	96.7%	149	150	99.3%	1.4%
Dimethylphthalate	< 14.9 U	198	152	130%	178	150	119%	10.6%
Butylbenzylphthalate	41.7	225	152	121%	230	150	126%	2.2%
2-Methylphenol	< 6.0 U	102	152	67.1%	102	150	68.0%	0.0%
2,4-Dimethylphenol	< 6.0 U	158	152	104%	154	150	103%	2.6%
N-Nitrosodiphenylamine	< 6.0 U	171	152	112%	172	150	115%	0.6%
Benzyl Alcohol	< 29.8 U	320	303	106%	318	299	106%	0.6%
Pentachlorophenol	< 29.8 U	90.9 JQ	152	59.8%	86.2 JQ	150	57.5%	5.3%
1,2-Dichlorobenzene	< 6.0 U	116	152	76.3%	113	150	75.3%	2.6%
N-Nitroso-Di-N-Propylamine	< 29.8 U	129	152	84.9%	135	150	90.0%	4.5%
N-Nitrosodimethylamine	< 29.8 U	78.2 JQ	152	51.4%	75.4 JQ	150	50.3%	3.6%

Reported in μg/kg (ppb)

RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-0-2**
 MATRIX SPIKE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 13:05
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	---
106-46-7	1,4-Dichlorobenzene	18	---
120-82-1	1,2,4-Trichlorobenzene	18	---
118-74-1	Hexachlorobenzene	18	---
87-68-3	Hexachlorobutadiene	18	---
131-11-3	Dimethylphthalate	46	---
85-68-7	Butylbenzylphthalate	46	---
95-48-7	2-Methylphenol	18	---
105-67-9	2,4-Dimethylphenol	18	---
86-30-6	N-Nitrosodiphenylamine	18	---
100-51-6	Benzyl Alcohol	91	---
87-86-5	Pentachlorophenol	91	---
95-50-1	1,2-Dichlorobenzene	18	---
621-64-7	N-Nitroso-Di-N-Propylamine	91	---
62-75-9	N-Nitrosodimethylamine	91	---

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	79.2%	d5-Phenol	55.2%
2-Fluorophenol	50.4%	d4-2-Chlorophenol	57.6%
d4-1,2-Dichlorobenzene	68.4%	d5-Nitrobenzene	78.0%
2,4,6-Tribromophenol	58.4%	d14-p-Terphenyl	87.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SC42-0-2**
Page 1 of 1 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/26/10 13:39
Instrument/Analyst: NT2/VTS
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	18	---
106-46-7	1,4-Dichlorobenzene	18	---
120-82-1	1,2,4-Trichlorobenzene	18	---
118-74-1	Hexachlorobenzene	18	---
87-68-3	Hexachlorobutadiene	18	---
131-11-3	Dimethylphthalate	45	---
85-68-7	Butylbenzylphthalate	45	---
95-48-7	2-Methylphenol	18	---
105-67-9	2,4-Dimethylphenol	18	---
86-30-6	N-Nitrosodiphenylamine	18	---
100-51-6	Benzyl Alcohol	90	---
87-86-5	Pentachlorophenol	90	---
95-50-1	1,2-Dichlorobenzene	18	---
621-64-7	N-Nitroso-Di-N-Propylamine	90	---
62-75-9	N-Nitrosodimethylamine	90	---

Reported in μg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	79.2%	d5-Phenol	54.4%
2-Fluorophenol	49.6%	d4-2-Chlorophenol	56.0%
d4-1,2-Dichlorobenzene	66.0%	d5-Nitrobenzene	78.0%
2,4,6-Tribromophenol	60.8%	d14-p-Terphenyl	90.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: SQ-1 031710**

STANDARD REFERENCE

Lab Sample ID: SRM-031710
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 13:19
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 18.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 40.2%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.5**	**100**
106-46-7	**1,4-Dichlorobenzene**	**5.5**	**9.9**
120-82-1	1,2,4-Trichlorobenzene	5.5	< 5.5 U
118-74-1	Hexachlorobenzene	5.5	< 5.5 U
87-68-3	Hexachlorobutadiene	5.5	< 5.5 U
131-11-3	Dimethylphthalate	14	< 14 U
85-68-7	Butylbenzylphthalate	14	< 14 U
95-48-7	2-Methylphenol	50	< 50 Y
105-67-9	2,4-Dimethylphenol	5.5	< 5.5 U
86-30-6	N-Nitrosodiphenylamine	5.5	< 5.5 U
100-51-6	Benzyl Alcohol	28	< 28 U
87-86-5	**Pentachlorophenol**	**28**	**340**
95-50-1	**1,2-Dichlorobenzene**	**5.5**	**20**
621-64-7	N-Nitroso-Di-N-Propylamine	28	< 28 U
62-75-9	N-Nitrosodimethylamine	28	< 28 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	72.4%	d5-Phenol	57.3%
2-Fluorophenol	56.5%	d4-2-Chlorophenol	57.6%
d4-1,2-Dichlorobenzene	64.0%	d5-Nitrobenzene	78.0%
2,4,6-Tribromophenol	75.5%	d14-p-Terphenyl	81.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: LCS-031710**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-031710
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized: B
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed LCS: 03/24/10 12:45
Instrument/Analyst LCS: NT2/PK

Sample Amount LCS: 16.0 g-dry-wt
Final Extract Volume LCS: 1.0 mL
Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Dibenz(a,h)anthracene	155	156	99.4%
1,4-Dichlorobenzene	103	156	66.0%
1,2,4-Trichlorobenzene	111	156	71.2%
Hexachlorobenzene	122	156	78.2%
Hexachlorobutadiene	119	156	76.3%
Dimethylphthalate	141	156	90.4%
Butylbenzylphthalate	146	156	93.6%
2-Methylphenol	92.5	156	59.3%
2,4-Dimethylphenol	89.4	156	57.3%
N-Nitrosodiphenylamine	159	156	102%
Benzyl Alcohol	< 31.2 U	312	NA
Pentachlorophenol	101	156	64.7%
1,2-Dichlorobenzene	106	156	67.9%
N-Nitroso-Di-N-Propylamine	105	156	67.3%
N-Nitrosodimethylamine	102	156	65.4%

Reported in µg/kg (ppb)

NA-No recovery due to high concentration of analyte in original sample, calculated negative recovery, or undetected spike.

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	65.6%
d5-Phenol	48.8%
2-Fluorophenol	49.6%
d4-2-Chlorophenol	49.3%
d4-1,2-Dichlorobenzene	57.2%
d5-Nitrobenzene	67.2%
2,4,6-Tribromophenol	59.2%
d14-p-Terphenyl	79.6%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QN38MBS1

Lab Name: ANALYTICAL RESOURCES, INC — Client: WINDWARD

ARI Job No: QN38 — Project: EW SUBSURFACE SEDIME

Lab File ID: 032401 — Date Extracted: 03/17/10

Instrument ID: NT2 — Date Analyzed: 03/24/10

Matrix: SOLID — Time Analyzed: 1210

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	QN38LCSS1	QN38LCSS1	032402	03/24/10
02	SQ-1	QN38SRM1	032403	03/24/10
03	EW10-SC36-0.9-3	QN38A	032416	03/24/10
04	EW10-SC36-3-5	QN38B	032417	03/24/10
05	EW10-SC39-0-2	QN38C	032418	03/24/10
06	EW10-SC39-2-3.4	QN38D	032419	03/24/10
07	EW10-SC40-0-1	QN38E	032420	03/24/10
08	EW10-SC36-0.9-3	QN38A	032507	03/25/10
09	EW10-SC36-3-5	QN38B	032508	03/25/10
10	EW10-SC39-0-2	QN38C	032509	03/25/10
11	EW10-SC39-2-3.4	QN38D	032510	03/25/10
12	EW10-SC40-0-1	QN38E	032511	03/25/10
13	EW10-SC40-1-4	QN38F	032512	03/25/10
14	EW10-SC42-0-2	QN38G	032513	03/25/10
15	EW10-SC42-2-4	QN38H	032516	03/25/10
16	EW10-SC44-0-2	QN38I	032517	03/25/10
17	EW10-SC44-2-4	QN38J	032518	03/25/10
18	EW10-SC47-0-2	QN38K	032519	03/25/10
19	EW10-SC47-2-3.6	QN38L	032520	03/25/10
20	EW10-SC42-0-2	QN38G	032601	03/26/10
21	EW10-SC42-0-2 MS	QN38GMS	032602	03/26/10
22	EW10-SC42-0-2 MS	QN38GMSD	032603	03/26/10
23	EW10-SC42-2-4	QN38H	032604	03/26/10
24	EW10-SC44-0-2	QN38I	032605	03/26/10
25	EW10-SC44-2-4	QN38J	032606	03/26/10
26	EW10-SC47-2-3.6	QN38L	032607	03/26/10
27	EW10-SC49-0-1.6	QN38M	032608	03/26/10
28	EW10-SC49-1.6-4	QN38N	032609	03/26/10
29	EW10-SC56-0-2	QN38O	032610	03/26/10
30	EW10-SC56-2-4	QN38P	032611	03/26/10

FORM IV SV

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

QN38MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: WINDWARD

ARI Job No: QN38

Project: EW SUBSURFACE SEDIME

Lab File ID: 032401

Date Extracted: 03/17/10

Instrument ID: NT2

Date Analyzed: 03/24/10

Matrix: SOLID

Time Analyzed: 1210

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EW10-SC62-0-2	QN38Q	032612	03/26/10
02	EW10-SC62-2-3.3	QN38R	032613	03/26/10
03				
04				
05				
06				
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30				

FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-031710**

METHOD BLANK

Lab Sample ID: MB-031710
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/29/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/24/10 12:10
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.2	< 6.2 U
106-46-7	1,4-Dichlorobenzene	6.2	< 6.2 U
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	16	< 16 U
85-68-7	Butylbenzylphthalate	16	< 16 U
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	80.0%	d5-Phenol	56.3%
2-Fluorophenol	57.6%	d4-2-Chlorophenol	58.4%
d4-1,2-Dichlorobenzene	70.8%	d5-Nitrobenzene	80.4%
2,4,6-Tribromophenol	53.6%	d14-p-Terphenyl	95.6%

PCB ANALYSIS

QN38:00114

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC36-0.9-3
SAMPLE

Lab Sample ID: QN38A
LIMS ID: 10-6066
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 20:28
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	29	< 29 Y
11097-69-1	**Aroclor 1254**	**19**	**48 P**
11096-82-5	**Aroclor 1260**	**19**	**54**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U
37324-23-5	Aroclor 1262	19	< 19 U
11100-14-4	Aroclor 1268	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	70.6%
Tetrachlorometaxylene	68.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC39-0-2
SAMPLE

Lab Sample ID: QN38C
LIMS ID: 10-6068
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 20:49
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 18.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 27.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	27	< 27 U
53469-21-9	**Aroclor 1242**	**27**	**44**
12672-29-6	Aroclor 1248	27	< 27 U
11097-69-1	**Aroclor 1254**	**27**	**72**
11096-82-5	**Aroclor 1260**	**27**	**60**
11104-28-2	Aroclor 1221	27	< 27 U
11141-16-5	Aroclor 1232	27	< 27 U
37324-23-5	Aroclor 1262	27	< 27 U
11100-14-4	Aroclor 1268	27	< 27 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.6%
Tetrachlorometaxylene	79.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC40-0-1
SAMPLE

Lab Sample ID: QN38E
LIMS ID: 10-6070
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 21:10
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	40	< 40 U
53469-21-9	**Aroclor 1242**	**40**	**73**
12672-29-6	Aroclor 1248	40	< 40 U
11097-69-1	**Aroclor 1254**	**40**	**190**
11096-82-5	**Aroclor 1260**	**40**	**230**
11104-28-2	Aroclor 1221	40	< 40 U
11141-16-5	Aroclor 1232	40	< 40 U
37324-23-5	Aroclor 1262	40	< 40 U
11100-14-4	Aroclor 1268	40	< 40 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	64.4%
Tetrachlorometaxylene	63.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC40-1-4
SAMPLE

Lab Sample ID: QN38F
LIMS ID: 10-6071
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 21:31
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 15.2 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	**Aroclor 1254**	**33**	**58**
11096-82-5	**Aroclor 1260**	**33**	**72**
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.4%
Tetrachlorometaxylene	67.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC42-0-2
SAMPLE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 21:53
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.03 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	62	< 62 U
53469-21-9	Aroclor 1242	62	< 62 U
12672-29-6	**Aroclor 1248**	**62**	**460**
11097-69-1	**Aroclor 1254**	**62**	**550**
11096-82-5	**Aroclor 1260**	**62**	**330**
11104-28-2	Aroclor 1221	62	< 62 U
11141-16-5	Aroclor 1232	62	< 62 U
37324-23-5	Aroclor 1262	62	< 62 U
11100-14-4	Aroclor 1268	62	< 62 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	73.4%
Tetrachlorometaxylene	67.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC42-2-4
SAMPLE

Lab Sample ID: QN38H
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 22:57
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 7.98 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 47.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	63	< 63 U
53469-21-9	Aroclor 1242	63	< 63 U
12672-29-6	**Aroclor 1248**	**63**	**420**
11097-69-1	**Aroclor 1254**	**63**	**630**
11096-82-5	**Aroclor 1260**	**63**	**480**
11104-28-2	Aroclor 1221	63	< 63 U
11141-16-5	Aroclor 1232	63	< 63 U
37324-23-5	Aroclor 1262	63	< 63 U
11100-14-4	Aroclor 1268	63	< 63 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	75.0%
Tetrachlorometaxylene	66.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC47-0-2
SAMPLE

Lab Sample ID: QN38K
LIMS ID: 10-6076
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/22/10 12:36
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 25.0
Silica Gel: Yes

Percent Moisture: 42.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	170	< 170 U
53469-21-9	**Aroclor 1242**	**170**	**390**
12672-29-6	Aroclor 1248	170	< 170 U
11097-69-1	**Aroclor 1254**	**170**	**1,100**
11096-82-5	**Aroclor 1260**	**170**	**2,300**
11104-28-2	Aroclor 1221	170	< 170 U
11141-16-5	Aroclor 1232	170	< 170 U
37324-23-5	Aroclor 1262	170	< 170 U
11100-14-4	Aroclor 1268	170	< 170 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	100%
Tetrachlorometaxylene	91.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC47-2-3.6
SAMPLE

Lab Sample ID: QN38L
LIMS ID: 10-6077
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/21/10 23:39
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 34.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	**Aroclor 1242**	**29**	**45**
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	**Aroclor 1254**	**29**	**71 P**
11096-82-5	**Aroclor 1260**	**29**	**68**
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	76.5%
Tetrachlorometaxylene	76.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC49-0-1.6
SAMPLE

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/21/10 00:00
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 39.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	41	< 41 U
53469-21-9	**Aroclor 1242**	**41**	**69**
12672-29-6	Aroclor 1248	41	< 41 U
11097-69-1	**Aroclor 1254**	**41**	**210**
11096-82-5	**Aroclor 1260**	**41**	**230**
11104-28-2	Aroclor 1221	41	< 41 U
11141-16-5	Aroclor 1232	41	< 41 U
37324-23-5	Aroclor 1262	41	< 41 U
11100-14-4	Aroclor 1268	41	< 41 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	73.9%
Tetrachlorometaxylene	70.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
EW10-SC36-0.9-3	70.6%	40-130	68.0%	46-113	0
EW10-SC39-0-2	80.6%	40-130	79.2%	46-113	0
EW10-SC40-0-1	64.4%	40-130	63.9%	46-113	0
EW10-SC40-1-4	71.4%	40-130	67.8%	46-113	0
MB-031810	72.0%	48-119	69.2%	47-110	0
LCS-031810	70.2%	48-119	67.8%	47-110	0
SRM SQ-1	61.0%	40-130	74.8%	46-113	0
EW10-SC42-0-2	73.4%	40-130	67.5%	46-113	0
EW10-SC42-0-2 MS	77.8%	40-130	77.0%	46-113	0
EW10-SC42-0-2 MSD	80.2%	40-130	79.4%	46-113	0
EW10-SC42-2-4	75.0%	40-130	66.0%	46-113	0
EW10-SC47-0-2	100%	40-130	91.9%	46-113	0
EW10-SC47-2-3.6	76.5%	40-130	76.8%	46-113	0
EW10-SC49-0-1.6	73.9%	40-130	70.6%	46-113	0

PSDDA Control Limits
Prep Method: SW3550B
Log Number Range: 10-6066 to 10-6078

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC42-0-2
MS/MSD

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted MS/MSD: 03/18/10

Date Analyzed MS: 03/20/10 22:14
MSD: 03/20/10 22:35
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 8.23 g-dry-wt
MSD: 8.09 g-dry-wt
Final Extract Volume MS: 5.0 mL
MSD: 5.0 mL
Dilution Factor MS: 5.00
MSD: 5.00
Silica Gel: Yes

Percent Moisture: 47.1%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 62.3 U	546	304	180%	579	309	187%	5.9%
Aroclor 1260	332	579	304	81.2%	494	309	52.4%	15.8%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

FORM III

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC42-0-2
MATRIX SPIKE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 22:14
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.23 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	61	---
53469-21-9	Aroclor 1242	61	< 61 U
12672-29-6	**Aroclor 1248**	**61**	**590 P**
11097-69-1	**Aroclor 1254**	**61**	**560**
11096-82-5	Aroclor 1260	61	---
11104-28-2	Aroclor 1221	61	< 61 U
11141-16-5	Aroclor 1232	61	< 61 U
37324-23-5	Aroclor 1262	61	< 61 U
11100-14-4	Aroclor 1268	61	< 61 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.8%
Tetrachlorometaxylene	77.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC42-0-2
MATRIX SPIKE DUP

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 22:35
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.09 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 47.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	62	---
53469-21-9	Aroclor 1242	62	< 62 U
12672-29-6	**Aroclor 1248**	**62**	**600 P**
11097-69-1	**Aroclor 1254**	**62**	**540**
11096-82-5	Aroclor 1260	62	---
11104-28-2	Aroclor 1221	62	< 62 U
11141-16-5	Aroclor 1232	62	< 62 U
37324-23-5	Aroclor 1262	62	< 62 U
11100-14-4	Aroclor 1268	62	< 62 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.2%
Tetrachlorometaxylene	79.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: SRM SQ-1
STANDARD REFERENCE

Lab Sample ID: SRM SQ-1
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 20:06
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 15.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 40.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	6.5	< 6.5 U
53469-21-9	Aroclor 1242	6.5	< 6.5 U
12672-29-6	Aroclor 1248	33	< 33 Y
11097-69-1	**Aroclor 1254**	**6.5**	**140**
11096-82-5	Aroclor 1260	6.5	< 6.5 U
11104-28-2	Aroclor 1221	6.5	< 6.5 U
11141-16-5	Aroclor 1232	6.5	< 6.5 U
37324-23-5	Aroclor 1262	6.5	< 6.5 U
11100-14-4	Aroclor 1268	6.5	< 6.5 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	61.0%
Tetrachlorometaxylene	74.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: LCS-031810
LAB CONTROL

Lab Sample ID: LCS-031810
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 19:03
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	90.3	100	90.3%
Aroclor 1260	70.5	100	70.5%

PCB Surrogate Recovery

Decachlorobiphenyl	70.2%
Tetrachlorometaxylene	67.8%

Results reported in µg/kg (ppb)

FORM III

PCB METHOD BLANK SUMMARY

BLANK NO.

QN38MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: WINDWARD

ARI Job No.: QN38

Project: EW SUBSURFACE SEDIME

Lab Sample ID: QN38MBS1

Lab File ID: 0320A025

Date Extracted: 03/18/10

Matrix: SOLID

Date Analyzed: 03/20/10

Instrument ID: ECD5

Time Analyzed: 1841

GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QN38LCSS1	QN38LCSS1	03/20/10
02	SQ-1	QN38SRM1	03/20/10
03	EW10-SC36-0.9-3	QN38A	03/20/10
04	EW10-SC39-0-2	QN38C	03/20/10
05	EW10-SC40-0-1	QN38E	03/20/10
06	EW10-SC40-1-4	QN38F	03/20/10
07	EW10-SC42-0-2	QN38G	03/20/10
08	EW10-SC42-0-2 MS	QN38GMS	03/20/10
09	EW10-SC42-0-2 MSD	QN38GMSD	03/20/10
10	EW10-SC42-2-4	QN38H	03/20/10
11	EW10-SC49-0-1.6	QN38M	03/21/10
12	EW10-SC47-0-2	QN38K	03/21/10
13	EW10-SC47-2-3.6	QN38L	03/21/10

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: MB-031810
METHOD BLANK

Lab Sample ID: MB-031810
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Date Extracted: 03/18/10
Date Analyzed: 03/20/10 18:41
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.0 g
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	72.0%
Tetrachlorometaxylene	69.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC36-3-5
SAMPLE

Lab Sample ID: QN38B
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/09/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 08:42
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	107%
Tetrachlorometaxylene	90.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC39-2-3.4
SAMPLE

Lab Sample ID: QN38D
LIMS ID: 10-6069
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 09:03
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	114%
Tetrachlorometaxylene	83.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC44-0-2
SAMPLE

Lab Sample ID: QN38I
LIMS ID: 10-6074
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 09:24
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	86.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC44-2-4
SAMPLE

Lab Sample ID: QN38J
LIMS ID: 10-6075
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 09:46
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	99.5%
Tetrachlorometaxylene	82.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC49-1.6-4
SAMPLE

Lab Sample ID: QN38N
LIMS ID: 10-6079
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 10:50
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	**Aroclor 1254**	**3.9**	**6.7**
11096-82-5	**Aroclor 1260**	**3.9**	**7.5**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	4.9	< 4.9 Y
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	102%
Tetrachlorometaxylene	78.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC56-0-2
SAMPLE

Lab Sample ID: QN38O
LIMS ID: 10-6080
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 11:11
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 22.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	**Aroclor 1254**	**3.9**	**12**
11096-82-5	**Aroclor 1260**	**3.9**	**11**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	112%
Tetrachlorometaxylene	88.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC56-2-4
SAMPLE

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 11:32
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 22.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	109%
Tetrachlorometaxylene	87.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC62-0-2
SAMPLE

Lab Sample ID: QN38Q
LIMS ID: 10-6082
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 12:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	109%
Tetrachlorometaxylene	88.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC62-2-3.3
SAMPLE

Lab Sample ID: QN38R
LIMS ID: 10-6083
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 13:19
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	114%
Tetrachlorometaxylene	90.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
EW10-SC36-0.9-3	70.6%	40-130	68.0%	46-113	0
MB-031710	78.8%	40-109	68.5%	35-100	0
LCS-031710	76.0%	40-109	68.5%	35-100	0
SRM SQ-1	103%	34-141	92.2%	38-102	0
EW10-SC36-3-5	107%	34-141	90.9%	38-102	0
EW10-SC39-0-2	80.6%	40-130	79.2%	46-113	0
EW10-SC39-2-3.4	114%	34-141	83.6%	38-102	0
EW10-SC40-0-1	64.4%	40-130	63.9%	46-113	0
EW10-SC40-1-4	71.4%	40-130	67.8%	46-113	0
MB-031810	72.0%	48-119	69.2%	47-110	0
LCS-031810	70.2%	48-119	67.8%	47-110	0
SRM SQ-1	61.0%	40-130	74.8%	46-113	0
EW10-SC42-0-2	73.4%	40-130	67.5%	46-113	0
EW10-SC42-0-2 MS	77.8%	40-130	77.0%	46-113	0
EW10-SC42-0-2 MSD	80.2%	40-130	79.4%	46-113	0
EW10-SC42-2-4	75.0%	40-130	66.0%	46-113	0
EW10-SC44-0-2	104%	34-141	86.6%	38-102	0
EW10-SC44-2-4	99.5%	34-141	82.8%	38-102	0
EW10-SC47-0-2	100%	40-130	91.9%	46-113	0
EW10-SC47-2-3.6	76.5%	40-130	76.8%	46-113	0
EW10-SC49-0-1.6	73.9%	40-130	70.6%	46-113	0
EW10-SC49-1.6-4	102%	34-141	78.2%	38-102	0
EW10-SC56-0-2	112%	34-141	88.0%	38-102	0
EW10-SC56-2-4	109%	34-141	87.5%	38-102	0
EW10-SC56-2-4 MS	106%	34-141	92.4%	38-102	0
EW10-SC56-2-4 MSD	98.2%	34-141	86.4%	38-102	0
EW10-SC62-0-2	109%	34-141	88.5%	38-102	0
EW10-SC62-2-3.3	114%	34-141	90.6%	38-102	0

Low Level PSDDA Control Limits
Prep Method: SW3550B
Log Number Range: 10-6066 to 10-6083

FORM-II SW8082

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC56-2-4
MS/MSD

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted MS/MSD: 03/17/10

Date Analyzed MS: 03/22/10 11:53
MSD: 03/22/10 12:15
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 25.7 g-dry-wt
MSD: 25.6 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 5.00
MSD: 5.00
Silica Gel: Yes

Percent Moisture: 22.6%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 3.9 U	24.3	19.4	125%	24.2	19.5	124%	0.4%
Aroclor 1260	< 3.9 U	19.2	19.4	99.0%	19.0	19.5	97.4%	1.0%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

FORM III

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC56-2-4
MATRIX SPIKE

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 11:53
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 22.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	---
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	---
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	106%
Tetrachlorometaxylene	92.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC56-2-4
MATRIX SPIKE DUP

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 12:15
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 22.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	---
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	---
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	98.2%
Tetrachlorometaxylene	86.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: SRM SQ-1
STANDARD REFERENCE

Lab Sample ID: SRM SQ-1
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 08:20
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 3.26 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 40.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	77	< 77 Y
11097-69-1	**Aroclor 1254**	**31**	**190**
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	103%
Tetrachlorometaxylene	92.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: LCS-031710
LAB CONTROL

Lab Sample ID: LCS-031710
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 07:59
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	16.2	20.0	81.0%
Aroclor 1260	12.9	20.0	64.5%

PCB Surrogate Recovery

Decachlorobiphenyl	76.0%
Tetrachlorometaxylene	68.5%

Results reported in µg/kg (ppb)

FORM III

PCB METHOD BLANK SUMMARY

BLANK NO.

QN38MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: WINDWARD

ARI Job No.: QN38

Project: EW SUBSURFACE SEDIME

Lab Sample ID: QN38MBS1

Lab File ID: 0322A005

Date Extracted: 03/17/10

Matrix: SOLID

Date Analyzed: 03/22/10

Instrument ID: ECD5

Time Analyzed: 0738

GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QN38LCSS1	QN38LCSS1	03/22/10
02	SQ-1	QN38SRM1	03/22/10
03	EW10-SC36-3-5	QN38B	03/22/10
04	EW10-SC39-2-3.4	QN38D	03/22/10
05	EW10-SC44-0-2	QN38I	03/22/10
06	EW10-SC44-2-4	QN38J	03/22/10
07	EW10-SC49-1.6-4	QN38N	03/22/10
08	EW10-SC56-0-2	QN38O	03/22/10
09	EW10-SC56-0-2	QN38O	03/22/10
10	EW10-SC56-2-4 MS	QN38PMS	03/22/10
11	EW10-SC56-2-4 MSD	QN38PMSD	03/22/10
12	EW10-SC62-0-2	QN38Q	03/22/10
13	EW10-SC62-2-3.3	QN38R	03/22/10

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: MB-031710
METHOD BLANK

Lab Sample ID: MB-031710
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized: B
Reported: 03/23/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Date Extracted: 03/17/10
Date Analyzed: 03/22/10 07:38
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.8	< 0.8 U
53469-21-9	Aroclor 1242	0.8	< 0.8 U
12672-29-6	Aroclor 1248	0.8	< 0.8 U
11097-69-1	Aroclor 1254	0.8	< 0.8 U
11096-82-5	Aroclor 1260	0.8	< 0.8 U
11104-28-2	Aroclor 1221	0.8	< 0.8 U
11141-16-5	Aroclor 1232	0.8	< 0.8 U
37324-23-5	Aroclor 1262	0.8	< 0.8 U
11100-14-4	Aroclor 1268	0.8	< 0.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.8%
Tetrachlorometaxylene	68.5%

FORM I

METALS ANALYSIS

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC36-0.9-3
SAMPLE

Lab Sample ID: QN38A
LIMS ID: 10-6066
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/09/10
Date Received: 03/11/10

Percent Total Solids: 75.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**5.6**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.6	**22.3**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**6.4**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**25.6**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**15**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.08**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.6	**0.9**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**19**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**49.1**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**45**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC36-3-5
SAMPLE

Lab Sample ID: QN38B
LIMS ID: 10-6067
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/09/10
Date Received: 03/11/10

Percent Total Solids: 75.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/25/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.1**	
3050B	03/19/10	6010B	03/25/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/19/10	6010B	03/25/10	**7440-47-3**	**Chromium**	0.6	**12.4**	
3050B	03/19/10	6010B	03/25/10	**7440-48-4**	**Cobalt**	0.4	**4.1**	
3050B	03/19/10	6010B	03/25/10	**7440-50-8**	**Copper**	0.2	**13.8**	
3050B	03/19/10	6010B	03/25/10	7439-92-1	Lead	2	2	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/19/10	6010B	03/25/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/19/10	6010B	03/25/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/19/10	6010B	03/25/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/25/10	**7440-62-2**	**Vanadium**	0.4	**39.8**	
3050B	03/19/10	6010B	03/25/10	**7440-66-6**	**Zinc**	1	**21**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC39-0-2
SAMPLE

Lab Sample ID: QN38C
LIMS ID: 10-6068
Matrix: Sediment
Data Release Authorized
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 69.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	7	7	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**4.5**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.7	**19.9**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**5.6**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**31.8**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**19**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.11**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.7	**1.2**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**13**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**47.7**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**50**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC39-2-3.4
SAMPLE

Lab Sample ID: QN38D
LIMS ID: 10-6069
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 72.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	7	7	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.4**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.7	**13.2**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**4.6**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**21.1**	
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	3	3	U
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.03**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.7	**0.8**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**9**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**45.8**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**25**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC40-0-1
SAMPLE

Lab Sample ID: QN38E
LIMS ID: 10-6070
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 58.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	8	8	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**11.6**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**1.9**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.8	**52.6**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.5	**11.1**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**87.3**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**95**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.04	**0.82**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.8	**2.6**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	2	**39**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.5	**1.7**	
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.5	**72.1**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	2	**170**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC40-1-4
SAMPLE

Lab Sample ID: QN38F
LIMS ID: 10-6071
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 61.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	8	8	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**9.2**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**1.2**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.8	**49.3**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.5	**12.9**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**67.2**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**66**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.04	**0.57**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.8	**2.0**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	2	**47**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.5	**0.6**	
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.5	**74.5**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	2	**126**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC42-0-2
SAMPLE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 52.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	9	9	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.9	**14.7**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.4	**4.0**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.9	**81.9**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.6	**11.7**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.4	**138**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	4	**177**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.04	**0.85**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.9	**4.9**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	2	**42**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	4	4	U
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.6	**3.4**	
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.6	**75.5**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	2	**237**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC42-0-2
DUPLICATE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	9 U	9 U	0.0%	+/- 9	L
Arsenic	200.8	14.7	14.6	0.7%	+/- 20%	
Cadmium	6010B	4.0	4.0	0.0%	+/- 20%	
Chromium	6010B	81.9	79.3	3.2%	+/- 20%	
Cobalt	6010B	11.7	11.6	0.9%	+/- 20%	
Copper	6010B	138	131	5.2%	+/- 20%	
Lead	6010B	177	179	1.1%	+/- 20%	
Mercury	7471A	0.85	0.80	6.1%	+/- 20%	
Molybdenum	6010B	4.9	4.9	0.0%	+/- 20%	
Nickel	6010B	42	41	2.4%	+/- 20%	
Selenium	200.8	4 U	4 U	0.0%	+/- 4	L
Silver	6010B	3.4	3.5	2.9%	+/- 20%	
Thallium	200.8	0.4 U	0.4 U	0.0%	+/- 0.4	L
Vanadium	6010B	75.5	75.2	0.4%	+/- 20%	
Zinc	6010B	237	232	2.1%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC42-0-2
MATRIX SPIKE

Lab Sample ID: QN38G
LIMS ID: 10-6072
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	6010B	9 U	55	372	14.8%	N
Arsenic	200.8	14.7	58.4	44.0	99.3%	
Cadmium	6010B	4.0	86.9	93.0	89.1%	
Chromium	6010B	81.9	153	93.0	76.5%	
Cobalt	6010B	11.7	90.7	93.0	84.9%	
Copper	6010B	138	206	93.0	73.1%	N
Lead	6010B	177	481	372	81.7%	
Mercury	7471A	0.85	1.17	0.354	90.4%	
Molybdenum	6010B	4.9	80.0	93.0	80.8%	
Nickel	6010B	42	116	93.0	79.6%	
Selenium	200.8	4 U	136	141	96.5%	
Silver	6010B	3.4	87.9	93.0	90.9%	
Thallium	200.8	0.4 U	44.0	44.0	100%	
Vanadium	6010B	75.5	145	93.0	74.7%	N
Zinc	6010B	237	297	93.0	64.5%	N

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC42-2-4
SAMPLE

Lab Sample ID: QN38H
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 54.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	9	9	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**21.2**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**4.1**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.9	**76.6**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.5	**12.4**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**152**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**188**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**1.52**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.9	**6.0**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	2	**41**	
3050B	03/19/10	200.8	04/03/10	**7782-49-2**	**Selenium**	0.9	**1.2**	
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.5	**4.2**	
3050B	03/19/10	200.8	04/03/10	**7440-28-0**	**Thallium**	0.3	**0.4**	
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.5	**86.9**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	2	**286**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC44-0-2
SAMPLE

Lab Sample ID: QN38I
LIMS ID: 10-6074
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 74.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.6**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.6	**14.1**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**4.8**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.2	**17.2**	
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	2	2	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.6	**1.0**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**10**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**44.7**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**25**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC44-2-4
SAMPLE

Lab Sample ID: QN38J
LIMS ID: 10-6075
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 74.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.8**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.6	**11.1**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**4.1**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**11.8**	
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	3	3	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**37.9**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**20**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC47-0-2
SAMPLE

Lab Sample ID: QN38K
LIMS ID: 10-6076
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 56.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	9	9	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**14.3**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**2.7**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.9	**61.6**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.5	**10.6**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**114**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**129**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.64**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.9	**3.7**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	2	**36**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.5	**2.2**	
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.5	**69.9**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	2	**179**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC47-2-3.6
SAMPLE

Lab Sample ID: QN38L
LIMS ID: 10-6077
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 65.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	7	7	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**8.0**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**1.1**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.7	**39.3**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**8.9**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**55.1**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**47**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.48**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.7	**1.7**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**29**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.4	**0.9**	
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**61.3**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**96**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC49-0-1.6
SAMPLE

Lab Sample ID: QN38M
LIMS ID: 10-6078
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 60.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	8	8	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**11.1**	
3050B	03/19/10	6010B	03/24/10	**7440-43-9**	**Cadmium**	0.3	**1.4**	
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.8	**50.2**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.5	**10.8**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**82.2**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**74**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.04	**0.54**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.8	**2.5**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	2	**37**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/19/10	6010B	03/24/10	**7440-22-4**	**Silver**	0.5	**1.2**	
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.5	**67.9**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	2	**125**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC49-1.6-4
SAMPLE

Lab Sample ID: QN38N
LIMS ID: 10-6079
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/10/10
Date Received: 03/11/10

Percent Total Solids: 72.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**3.4**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.6	**16.7**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**5.2**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**22.0**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**6**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.08**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.6	**0.9**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**12**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**46.0**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**31**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC56-0-2
SAMPLE

Lab Sample ID: QN38O
LIMS ID: 10-6080
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Percent Total Solids: 76.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.7**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.6	**14.6**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**5.2**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**20.3**	
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	3	3	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**11**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**45.5**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**28**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC56-2-4
SAMPLE

Lab Sample ID: QN38P
LIMS ID: 10-6081
Matrix: Sediment
Data Release Authorized
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Percent Total Solids: 74.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	6	6	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.3**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.6	**12.8**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**4.4**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**14.2**	
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	3	3	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/19/10	6010B	03/24/10	7439-98-7	Molybdenum	0.6	0.6	U
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**8**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**42.0**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**23**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC62-0-2
SAMPLE

Lab Sample ID: QN38Q
LIMS ID: 10-6082
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Percent Total Solids: 69.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	7	7	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**3.5**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.7	**16.9**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**5.4**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**22.9**	
3050B	03/19/10	6010B	03/24/10	**7439-92-1**	**Lead**	3	**4**	
CLP	03/19/10	7471A	03/22/10	**7439-97-6**	**Mercury**	0.03	**0.04**	
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.7	**0.9**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**12**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**47.4**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**30**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SC62-2-3.3
SAMPLE

Lab Sample ID: QN38R
LIMS ID: 10-6083
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/11/10
Date Received: 03/11/10

Percent Total Solids: 70.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	7	7	U
3050B	03/19/10	200.8	04/03/10	**7440-38-2**	**Arsenic**	0.3	**2.8**	
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-47-3**	**Chromium**	0.7	**15.0**	
3050B	03/19/10	6010B	03/24/10	**7440-48-4**	**Cobalt**	0.4	**4.7**	
3050B	03/19/10	6010B	03/24/10	**7440-50-8**	**Copper**	0.3	**17.5**	
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	3	3	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.03	0.03	U
3050B	03/19/10	6010B	03/24/10	**7439-98-7**	**Molybdenum**	0.7	**0.7**	
3050B	03/19/10	6010B	03/24/10	**7440-02-0**	**Nickel**	1	**10**	
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	**7440-62-2**	**Vanadium**	0.4	**43.1**	
3050B	03/19/10	6010B	03/24/10	**7440-66-6**	**Zinc**	1	**25**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: QN38LCS
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010B	216	200	108%	
Arsenic	200.8	25.9	25.0	104%	
Cadmium	6010B	47.1	50.0	94.2%	
Chromium	6010B	47.9	50.0	95.8%	
Cobalt	6010B	45.7	50.0	91.4%	
Copper	6010B	49.5	50.0	99.0%	
Lead	6010B	177	200	88.5%	
Mercury	7471A	0.52	0.50	104%	
Molybdenum	6010B	51.9	50.0	104%	
Nickel	6010B	47	50	94.0%	
Selenium	200.8	82.7	80.0	103%	
Silver	6010B	48.7	50.0	97.4%	
Thallium	200.8	25.8	25.0	103%	
Vanadium	6010B	46.6	50.0	93.2%	
Zinc	6010B	45	50	90.0%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: QN38MB
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/19/10	6010B	03/24/10	7440-36-0	Antimony	5	5	U
3050B	03/19/10	200.8	04/03/10	7440-38-2	Arsenic	0.2	0.2	U
3050B	03/19/10	6010B	03/24/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	03/19/10	6010B	03/24/10	7440-47-3	Chromium	0.5	0.5	U
3050B	03/19/10	6010B	03/24/10	7440-48-4	Cobalt	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	7440-50-8	Copper	0.2	0.2	U
3050B	03/19/10	6010B	03/24/10	7439-92-1	Lead	2	2	U
CLP	03/19/10	7471A	03/22/10	7439-97-6	Mercury	0.02	0.02	U
3050B	03/19/10	6010B	03/24/10	7439-98-7	Molybdenum	0.5	0.5	U
3050B	03/19/10	6010B	03/24/10	7440-02-0	Nickel	1	1	U
3050B	03/19/10	200.8	04/03/10	7782-49-2	Selenium	0.5	0.5	U
3050B	03/19/10	6010B	03/24/10	7440-22-4	Silver	0.3	0.3	U
3050B	03/19/10	200.8	04/03/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/19/10	6010B	03/24/10	7440-62-2	Vanadium	0.3	0.3	U
3050B	03/19/10	6010B	03/24/10	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: STD REFERENCE
ERA D053540

Lab Sample ID: QN38SRM
LIMS ID: 10-6073
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QN38-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: NA
Date Received: NA

Analyte	Analysis Method	Analysis Date	mg/kg-dry	Certified Value	Advisory Range
Antimony	6010B	03/25/10	48	90	5-190
Arsenic	200.8	04/03/10	129	129	102-156
Cadmium	6010B	03/25/10	78.0	66.5	54.6-78.4
Chromium	6010B	03/25/10	79.2	72.9	57.8-88.1
Cobalt	6010B	03/25/10	80.4	73.1	59.8-86.4
Copper	6010B	03/25/10	72.6	68.5	57.0-80.0
Lead	6010B	03/25/10	141	130	106-154
Mercury	7471A	03/22/10	9.0	8.3	5.5-11.0
Molybdenum	6010B	03/25/10	47.3	48.7	38.9-58.5
Nickel	6010B	03/25/10	56.9	55.6	45.6-65.8
Selenium	200.8	04/03/10	168	168	124-211
Silver	6010B	03/25/10	108	101	66.9-135
Thallium	200.8	04/03/10	138	134	105-163
Vanadium	6010B	03/25/10	87.1	83.0	64.0-102
Zinc	6010B	03/25/10	180	177	140-214

*Lower advisory range for antimony is the calculated detection limit.

GENERAL CHEMISTRY ANALYSIS

QN38:00173

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Client ID: EW10-SC36-0.9-3
ARI ID: 10-6066 QN38A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	75.80
Total Organic Carbon	03/16/10 031610#1	Plumb,1981	Percent	0.020	0.577

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/09/10
Date Received: 03/11/10

Client ID: EW10-SC36-3-5
ARI ID: 10-6067 QN38B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	76.20
Total Organic Carbon	03/16/10 031610#1	Plumb,1981	Percent	0.020	0.274

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC39-0-2
ARI ID: 10-6068 QN38C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	71.00
Total Organic Carbon	03/16/10 031610#1	Plumb,1981	Percent	0.020	0.572

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC39-2-3.4
ARI ID: 10-6069 QN38D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	74.20
Total Organic Carbon	03/16/10 031610#1	Plumb,1981	Percent	0.020	0.291

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MR
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC40-0-1
ARI ID: 10-6070 QN38E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	59.40
Total Organic Carbon	03/16/10 031610#1	Plumb,1981	Percent	0.020	1.58

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC40-1-4
ARI ID: 10-6071 QN38F

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	43.80
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	1.70

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MO
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC42-0-2
ARI ID: 10-6072 QN38G

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	51.90
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	2.19

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MP
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC42-2-4
ARI ID: 10-6073 QN38H

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	53.70
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	2.83

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC44-0-2
ARI ID: 10-6074 QN38I

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	76.40
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.394

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC44-2-4
ARI ID: 10-6075 QN38J

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	75.30
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.385

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC47-0-2
ARI ID: 10-6076 QN38K

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	57.00
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	1.61

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MP
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC47-2-3.6
ARI ID: 10-6077 QN38L

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	65.90
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	1.06

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC49-0-1.6
ARI ID: 10-6078 QN38M

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	61.00
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	1.42

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Client ID: EW10-SC49-1.6-4
ARI ID: 10-6079 QN38N

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	74.00
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.606

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Client ID: EW10-SC56-0-2
ARI ID: 10-6080 QN38O

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	75.70
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.436

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Client ID: EW10-SC56-2-4
ARI ID: 10-6081 QN38P

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	73.30
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.332

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Client ID: EW10-SC62-0-2
ARI ID: 10-6082 QN38Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	70.80
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.596

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MP
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/11/10
Date Received: 03/11/10

Client ID: EW10-SC62-2-3.3
ARI ID: 10-6083 QN38R

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/12/10 031210#1	EPA 160.3	Percent	0.01	72.30
Total Organic Carbon	03/17/10 031710#1	Plumb,1981	Percent	0.020	0.607

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QN38G Client ID: EW10-SC42-0-2						
Total Organic Carbon	03/17/10	Percent	2.19	4.63	2.50	97.5%

REPLICATE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/10/10
Date Received: 03/11/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QN38G Client ID: EW10-SC42-0-2					
Total Solids	03/12/10	Percent	51.90	52.00 52.00	0.1%
Total Organic Carbon	03/17/10	Percent	2.19	2.07 2.12	2.8%

LAB CONTROL RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MP
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon	ICVL	03/16/10	Percent	0.098	0.100	98.0%
Plumb,1981	ICVL	03/17/10		0.102	0.100	102.0%

METHOD BLANK RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	03/12/10	Percent	< 0.01 U
Total Organic Carbon	03/16/10	Percent	< 0.020 U
	03/17/10		< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
QN38-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/18/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon	03/16/10	Percent	2.95	3.35	88.1%
NIST #8704	03/17/10		2.93	3.35	87.5%

GEOTECHNICAL ANALYSIS

QN38:00197

Windward Environmental, LLC
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
EW10-SC42-2-4	100.0	100.0	100.0	98.9	97.9	96.4	93.9	90.8	87.8	73.7	57.5	41.0	27.8	18.5
	100.0	100.0	100.0	97.5	96.2	94.7	92.3	89.0	83.8	71.3	55.7	39.7	26.2	17.9
	100.0	100.0	98.2	96.0	94.9	93.3	90.6	87.2	82.0	69.8	54.9	39.2	25.9	17.1
EW10-SC36-0.9-3	100.0	100.0	99.8	99.4	98.7	89.2	73.5	56.4	37.7	24.1	16.5	11.6	7.5	4.7
EW10-SC36-3-5	100.0	100.0	100.0	100.0	99.8	97.9	66.9	30.5	15.5	8.5	5.2	3.5	2.4	1.3
EW10-SC39-0-2	100.0	100.0	100.0	99.9	99.7	97.6	84.1	56.8	38.0	24.1	16.1	11.6	7.9	5.4
EW10-SC39-2-3.4	100.0	100.0	100.0	99.9	99.8	99.6	96.3	70.9	47.1	25.4	15.1	10.1	6.7	4.5
EW10-SC40-0-1	100.0	100.0	100.0	99.7	99.1	97.1	87.4	80.5	74.6	60.5	46.5	33.2	21.6	14.2
EW10-SC40-1-4	100.0	100.0	100.0	99.8	99.4	97.4	90.7	85.2	76.9	66.0	52.5	38.1	24.9	15.8
EW10-SC42-0-2	100.0	100.0	100.0	99.8	99.3	97.8	95.2	90.0	81.1	65.5	49.3	35.1	24.0	16.1
EW10-SC44-0-2	100.0	100.0	100.0	99.8	99.4	95.3	62.9	32.3	18.4	12.7	8.5	5.9	4.1	2.8
EW10-SC44-2-4	100.0	100.0	99.9	99.8	98.8	71.9	32.4	18.0	9.8	6.4	4.4	3.1	2.3	1.6
EW10-SC47-0-2	100.0	100.0	100.0	99.6	99.0	96.0	85.6	76.7	69.2	54.3	40.8	28.4	19.3	12.7
EW10-SC47-2-3.6	100.0	99.9	99.6	99.3	98.5	86.7	68.6	57.2	47.0	40.2	31.7	22.8	14.9	9.7
EW10-SC49-0-1.6	100.0	100.0	99.7	99.3	98.3	95.3	88.6	80.1	68.2	56.5	43.5	31.2	20.5	13.6
EW10-SC49-1.6-4	100.0	99.9	99.6	99.5	99.1	92.5	67.1	46.4	31.4	22.0	15.0	10.5	7.1	4.7
EW10-SC56-0-2	100.0	100.0	100.0	99.9	99.6	94.0	55.7	28.0	16.4	10.6	7.1	4.8	3.2	2.0
EW10-SC56-2-4	100.0	100.0	100.0	100.0	99.7	90.6	43.0	22.5	13.6	8.7	5.7	4.0	2.8	1.9
EW10-SC62-0-2	100.0	100.0	99.7	99.6	99.2	95.7	76.3	48.3	29.7	20.1	13.3	9.6	6.9	4.7
EW10-SC62-2-3.3	100.0	100.0	100.0	99.8	99.4	92.5	59.3	34.7	20.1	13.1	8.3	5.9	4.1	2.9

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QN38 : 0051 98

Windward Environmental, LLC
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC42-2-4	0.0	1.1	1.0	1.5	2.4	3.2	3.0	14.0	16.2	16.5	13.2	9.3	18.5	90.8
	0.0	2.5	1.3	1.5	2.4	3.3	5.2	12.5	15.6	16.0	13.5	8.3	17.9	89.0
	1.8	2.2	1.1	1.6	2.7	3.4	5.2	12.1	14.9	15.7	13.3	8.7	17.1	87.2
EW10-SC36-0.9-3	0.2	0.3	0.7	9.5	15.7	17.1	18.8	13.5	7.6	4.9	4.1	2.8	4.7	56.4
EW10-SC36-3-5	0.0	0.0	0.2	1.9	31.0	36.5	15.0	7.0	3.3	1.7	1.1	1.1	1.3	30.5
EW10-SC39-0-2	0.0	0.1	0.2	2.1	13.5	27.3	18.9	13.9	8.0	4.5	3.8	2.5	5.4	56.8
EW10-SC39-2-3.4	0.0	0.1	0.1	0.2	3.3	25.4	23.7	21.7	10.3	5.0	3.4	2.2	4.5	70.9
EW10-SC40-0-1	0.0	0.3	0.6	2.1	9.7	6.8	6.0	14.0	14.0	13.3	11.6	7.5	14.2	80.5
EW10-SC40-1-4	0.0	0.2	0.4	2.0	6.7	5.5	8.3	10.9	13.5	14.4	13.3	9.1	15.8	85.2
EW10-SC42-0-2	0.0	0.2	0.6	1.5	2.6	5.2	8.9	15.5	16.2	14.3	11.0	7.9	16.1	90.0
EW10-SC44-0-2	0.0	0.2	0.3	4.2	32.4	30.6	14.0	5.6	4.2	2.6	1.8	1.4	2.8	32.3
EW10-SC44-2-4	0.1	0.1	1.0	26.9	39.6	14.4	8.2	3.4	2.0	1.3	0.8	0.7	1.6	18.0
EW10-SC47-0-2	0.0	0.3	0.6	3.0	10.4	8.9	7.5	14.9	13.5	12.4	9.1	6.6	12.7	76.7
EW10-SC47-2-3.6	0.4	0.3	0.9	11.7	18.1	11.4	10.2	6.7	8.5	8.9	7.9	5.2	9.7	57.2
EW10-SC49-0-1.6	0.3	0.4	0.9	3.0	6.7	8.5	11.8	11.7	13.0	12.4	10.6	6.9	13.6	80.1
EW10-SC49-1.6-4	0.4	0.2	0.4	6.6	25.4	20.7	15.0	9.5	6.9	4.5	3.4	2.3	4.7	46.4
EW10-SC56-0-2	0.0	0.1	0.3	5.6	38.3	27.7	11.6	5.8	3.5	2.3	1.6	1.2	2.0	28.0
EW10-SC56-2-4	0.0	0.0	0.2	9.1	47.6	20.5	8.9	4.9	3.0	1.7	1.2	0.9	1.9	22.5
EW10-SC62-0-2	0.3	0.1	0.4	3.5	19.4	28.0	18.6	9.6	6.8	3.7	2.7	2.1	4.7	48.3
EW10-SC62-2-3.3	0.0	0.1	0.5	6.9	33.2	24.6	14.5	7.1	4.7	2.4	1.8	1.3	2.9	34.7

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QN38

QN38 : 09159

PCBs

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC03-0-2
SAMPLE

Lab Sample ID: QL56A
LIMS ID: 10-4777
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 14:37
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.12 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 35.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	62	< 62 U
53469-21-9	Aroclor 1242	62	< 62 U
12672-29-6	Aroclor 1248	250	< 250 Y
11097-69-1	**Aroclor 1254**	**62**	**530 P**
11096-82-5	**Aroclor 1260**	**62**	**900**
11104-28-2	Aroclor 1221	62	< 62 U
11141-16-5	Aroclor 1232	62	< 62 U
37324-23-5	Aroclor 1262	62	< 62 U
11100-14-4	Aroclor 1268	62	< 62 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.6%
Tetrachlorometaxylene	68.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC03-2-4
SAMPLE

Lab Sample ID: QL56B
LIMS ID: 10-4778
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 21:43
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 12.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.6%
Tetrachlorometaxylene	66.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC04-0-2
SAMPLE

Lab Sample ID: QL56C
LIMS ID: 10-4779
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 14:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 7.94 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	63	< 63 U
53469-21-9	**Aroclor 1242**	**63**	**430 P**
12672-29-6	Aroclor 1248	63	< 63 U
11097-69-1	**Aroclor 1254**	**63**	**920**
11096-82-5	**Aroclor 1260**	**63**	**1,300**
11104-28-2	Aroclor 1221	63	< 63 U
11141-16-5	Aroclor 1232	63	< 63 U
37324-23-5	Aroclor 1262	63	< 63 U
11100-14-4	Aroclor 1268	63	< 63 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	76.8%
Tetrachlorometaxylene	70.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC04-2-4
SAMPLE

Lab Sample ID: QL56D
LIMS ID: 10-4780
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 22:05
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	**Aroclor 1260**	**3.9**	**5.5**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.9%
Tetrachlorometaxylene	66.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC05-0-2
SAMPLE

Lab Sample ID: QL56E
LIMS ID: 10-4781
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 15:20
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**41 P**
11097-69-1	**Aroclor 1254**	**20**	**64 P**
11096-82-5	**Aroclor 1260**	**20**	**62**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	68.5%
Tetrachlorometaxylene	65.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC05-2-4
SAMPLE

Lab Sample ID: QL56F
LIMS ID: 10-4782
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 23:51
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 18.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	**Aroclor 1260**	**3.9**	**5.6**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.5%
Tetrachlorometaxylene	69.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC06-0-2
SAMPLE

Lab Sample ID: QL56G
LIMS ID: 10-4783
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 15:41
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 52.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	41	< 41 U
53469-21-9	**Aroclor 1242**	**41**	**250**
12672-29-6	Aroclor 1248	41	< 41 U
11097-69-1	**Aroclor 1254**	**41**	**1,000**
11096-82-5	**Aroclor 1260**	**41**	**1,300**
11104-28-2	Aroclor 1221	41	< 41 U
11141-16-5	Aroclor 1232	41	< 41 U
37324-23-5	Aroclor 1262	41	< 41 U
11100-14-4	Aroclor 1268	41	< 41 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.0%
Tetrachlorometaxylene	63.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC06-2-4
SAMPLE

Lab Sample ID: QL56H
LIMS ID: 10-4784
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/11/10 00:13
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	20	< 20 Y
11097-69-1	**Aroclor 1254**	**3.9**	**37 P**
11096-82-5	**Aroclor 1260**	**3.9**	**72**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	67.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC07B-0.0-2.3
SAMPLE

Lab Sample ID: QM30A
LIMS ID: 10-5171
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/13/10 22:24
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 30.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	40	< 40 U
53469-21-9	Aroclor 1242	40	< 40 U
12672-29-6	**Aroclor 1248**	**40**	**280 P**
11097-69-1	**Aroclor 1254**	**40**	**270**
11096-82-5	**Aroclor 1260**	**40**	**190**
11104-28-2	Aroclor 1221	40	< 40 U
11141-16-5	Aroclor 1232	40	< 40 U
37324-23-5	Aroclor 1262	40	< 40 U
11100-14-4	Aroclor 1268	40	< 40 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	90.2%
Tetrachlorometaxylene	75.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC07B-2.3-4
SAMPLE

Lab Sample ID: QM30B
LIMS ID: 10-5172
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/13/10 22:46
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 23.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	**Aroclor 1248**	**38**	**44**
11097-69-1	**Aroclor 1254**	**38**	**45**
11096-82-5	Aroclor 1260	38	< 38 U
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U
37324-23-5	Aroclor 1262	38	< 38 U
11100-14-4	Aroclor 1268	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	77.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC08-0-2
SAMPLE

Lab Sample ID: QL56I
LIMS ID: 10-4785
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 17:06
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 50.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	40	< 40 U
53469-21-9	**Aroclor 1242**	**40**	**180**
12672-29-6	Aroclor 1248	40	< 40 U
11097-69-1	**Aroclor 1254**	**40**	**540**
11096-82-5	**Aroclor 1260**	**40**	**680**
11104-28-2	Aroclor 1221	40	< 40 U
11141-16-5	Aroclor 1232	40	< 40 U
37324-23-5	Aroclor 1262	40	< 40 U
11100-14-4	Aroclor 1268	40	< 40 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.1%
Tetrachlorometaxylene	69.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC08-2-4
SAMPLE

Lab Sample ID: QL56J
LIMS ID: 10-4786
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/22/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 17:28
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 9.40 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 53.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	110	< 110 U
53469-21-9	Aroclor 1242	110	< 110 U
12672-29-6	**Aroclor 1248**	**110**	**2,400**
11097-69-1	**Aroclor 1254**	**110**	**2,800**
11096-82-5	**Aroclor 1260**	**110**	**2,000**
11104-28-2	Aroclor 1221	110	< 110 U
11141-16-5	Aroclor 1232	110	< 110 U
37324-23-5	Aroclor 1262	110	< 110 U
11100-14-4	Aroclor 1268	110	< 110 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.0%
Tetrachlorometaxylene	70.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC10-0-2.4
SAMPLE

Lab Sample ID: QM30C
LIMS ID: 10-5173
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/13/10 23:07
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 15.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 40.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	67	< 67 U
53469-21-9	Aroclor 1242	67	< 67 U
12672-29-6	**Aroclor 1248**	**67**	**120 P**
11097-69-1	**Aroclor 1254**	**67**	**230**
11096-82-5	**Aroclor 1260**	**67**	**320**
11104-28-2	Aroclor 1221	67	< 67 U
11141-16-5	Aroclor 1232	67	< 67 U
37324-23-5	Aroclor 1262	67	< 67 U
11100-14-4	Aroclor 1268	67	< 67 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.5%
Tetrachlorometaxylene	68.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC10-2.4-4
SAMPLE

Lab Sample ID: QM30D
LIMS ID: 10-5174
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/13/10 23:28
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 18.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	55	< 55 U
53469-21-9	Aroclor 1242	55	< 55 U
12672-29-6	**Aroclor 1248**	**55**	**87 P**
11097-69-1	**Aroclor 1254**	**55**	**160**
11096-82-5	**Aroclor 1260**	**55**	**190**
11104-28-2	Aroclor 1221	55	< 55 U
11141-16-5	Aroclor 1232	55	< 55 U
37324-23-5	Aroclor 1262	55	< 55 U
11100-14-4	Aroclor 1268	55	< 55 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	61.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC11-0-2
SAMPLE

Lab Sample ID: QL56K
LIMS ID: 10-4787
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 17:49
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 43.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	34	< 34 U
53469-21-9	**Aroclor 1242**	**34**	**90**
12672-29-6	Aroclor 1248	34	< 34 U
11097-69-1	**Aroclor 1254**	**34**	**340**
11096-82-5	**Aroclor 1260**	**34**	**340**
11104-28-2	Aroclor 1221	34	< 34 U
11141-16-5	Aroclor 1232	34	< 34 U
37324-23-5	Aroclor 1262	34	< 34 U
11100-14-4	Aroclor 1268	34	< 34 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	72.2%
Tetrachlorometaxylene	66.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC11-2-4
SAMPLE

Lab Sample ID: QL56L
LIMS ID: 10-4788
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/23/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 18:10
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 49.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	**Aroclor 1242**	**39**	**840**
12672-29-6	Aroclor 1248	39	< 39 U
11097-69-1	**Aroclor 1254**	**39**	**1,400**
11096-82-5	**Aroclor 1260**	**39**	**1,100**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.1%
Tetrachlorometaxylene	55.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC12-0-2
SAMPLE

Lab Sample ID: QM30E
LIMS ID: 10-5175
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/13/10 23:50
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	77	< 77 U
53469-21-9	Aroclor 1242	77	< 77 U
12672-29-6	**Aroclor 1248**	**77**	**1,000 P**
11097-69-1	**Aroclor 1254**	**77**	**1,200**
11096-82-5	**Aroclor 1260**	**77**	**1,200**
11104-28-2	Aroclor 1221	77	< 77 U
11141-16-5	Aroclor 1232	77	< 77 U
37324-23-5	Aroclor 1262	77	< 77 U
11100-14-4	Aroclor 1268	77	< 77 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	99.2%
Tetrachlorometaxylene	73.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC12-2-3.1
SAMPLE

Lab Sample ID: QM30F
LIMS ID: 10-5176
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 00:11
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 42.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	69	< 69 U
53469-21-9	Aroclor 1242	69	< 69 U
12672-29-6	**Aroclor 1248**	**69**	**970**
11097-69-1	**Aroclor 1254**	**69**	**1,200**
11096-82-5	**Aroclor 1260**	**69**	**1,100**
11104-28-2	Aroclor 1221	69	< 69 U
11141-16-5	Aroclor 1232	69	< 69 U
37324-23-5	Aroclor 1262	69	< 69 U
11100-14-4	Aroclor 1268	69	< 69 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	108%
Tetrachlorometaxylene	71.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC13-0-1.6
SAMPLE

Lab Sample ID: QM80C
LIMS ID: 10-5593
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 16:55
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 50.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**200**
11097-69-1	**Aroclor 1254**	**20**	**490**
11096-82-5	**Aroclor 1260**	**20**	**660**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	112%
Tetrachlorometaxylene	84.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC13-1.6-4
SAMPLE

Lab Sample ID: QM80D
LIMS ID: 10-5594
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/16/10 23:48
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 8.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	**Aroclor 1254**	**3.9**	**6.8**
11096-82-5	**Aroclor 1260**	**3.9**	**9.2**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	111%
Tetrachlorometaxylene	86.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC15-0-2.3
SAMPLE

Lab Sample ID: QM30G
LIMS ID: 10-5177
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 00:32
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 9.06 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 41.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	110	< 110 U
53469-21-9	**Aroclor 1242**	**110**	**230**
12672-29-6	Aroclor 1248	110	< 110 U
11097-69-1	**Aroclor 1254**	**110**	**540**
11096-82-5	**Aroclor 1260**	**110**	**670**
11104-28-2	Aroclor 1221	110	< 110 U
11141-16-5	Aroclor 1232	110	< 110 U
37324-23-5	Aroclor 1262	110	< 110 U
11100-14-4	Aroclor 1268	110	< 110 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	96.0%
Tetrachlorometaxylene	77.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC15-2.3-4
SAMPLE

Lab Sample ID: QM30H
LIMS ID: 10-5178
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 17:26
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	**Aroclor 1248**	**3.9**	**7.2 P**
11097-69-1	**Aroclor 1254**	**3.9**	**7.4**
11096-82-5	**Aroclor 1260**	**3.9**	**5.8**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.9%
Tetrachlorometaxylene	74.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC18-0-2
SAMPLE

Lab Sample ID: QM30I
LIMS ID: 10-5179
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 01:36
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 3.03 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 40.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	330	< 330 U
53469-21-9	Aroclor 1242	330	< 330 U
12672-29-6	Aroclor 1248	330	< 330 U
11097-69-1	**Aroclor 1254**	**330**	**780**
11096-82-5	**Aroclor 1260**	**330**	**920**
11104-28-2	Aroclor 1221	330	< 330 U
11141-16-5	Aroclor 1232	330	< 330 U
37324-23-5	Aroclor 1262	330	< 330 U
11100-14-4	Aroclor 1268	330	< 330 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.0%
Tetrachlorometaxylene	80.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC18-2-4
SAMPLE

Lab Sample ID: QM30J
LIMS ID: 10-5180
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 02:40
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 37.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	79	< 79 U
53469-21-9	**Aroclor 1242**	**79**	**450**
12672-29-6	Aroclor 1248	79	< 79 U
11097-69-1	**Aroclor 1254**	**79**	**780**
11096-82-5	**Aroclor 1260**	**79**	**610**
11104-28-2	Aroclor 1221	79	< 79 U
11141-16-5	Aroclor 1232	79	< 79 U
37324-23-5	Aroclor 1262	79	< 79 U
11100-14-4	Aroclor 1268	79	< 79 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	94.5%
Tetrachlorometaxylene	76.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC19-0-2.5
SAMPLE

Lab Sample ID: QL86A
LIMS ID: 10-4948
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 01:18
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 40.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	67	< 67 U
53469-21-9	Aroclor 1242	67	< 67 U
12672-29-6	**Aroclor 1248**	**67**	**440**
11097-69-1	**Aroclor 1254**	**67**	**800**
11096-82-5	**Aroclor 1260**	**67**	**760**
11104-28-2	Aroclor 1221	67	< 67 U
11141-16-5	Aroclor 1232	67	< 67 U
37324-23-5	Aroclor 1262	67	< 67 U
11100-14-4	Aroclor 1268	67	< 67 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	112%
Tetrachlorometaxylene	81.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC19-2.5-4
SAMPLE

Lab Sample ID: QL86B
LIMS ID: 10-4949
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 17:02
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 23.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	**Aroclor 1248**	**3.9**	**48**
11097-69-1	**Aroclor 1254**	**3.9**	**61**
11096-82-5	**Aroclor 1260**	**3.9**	**43**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	139%
Tetrachlorometaxylene	108%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC20-0.4-2.4
SAMPLE

Lab Sample ID: QL86C
LIMS ID: 10-4950
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 17:26
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	129%
Tetrachlorometaxylene	105%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC20-2.4-4.4
SAMPLE

Lab Sample ID: QL86D
LIMS ID: 10-4951
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 18:37
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	131%
Tetrachlorometaxylene	93.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC21-0-2
SAMPLE

Lab Sample ID: QL86E
LIMS ID: 10-4952
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 01:42
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 45.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	71	< 71 U
53469-21-9	Aroclor 1242	71	< 71 U
12672-29-6	**Aroclor 1248**	**71**	**330**
11097-69-1	**Aroclor 1254**	**71**	**640**
11096-82-5	**Aroclor 1260**	**71**	**730**
11104-28-2	Aroclor 1221	71	< 71 U
11141-16-5	Aroclor 1232	71	< 71 U
37324-23-5	Aroclor 1262	71	< 71 U
11100-14-4	Aroclor 1268	71	< 71 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	84.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC21-2-4
SAMPLE

Lab Sample ID: QL86F
LIMS ID: 10-4953
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 02:05
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.91 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 42.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	110	< 110 U
53469-21-9	Aroclor 1242	110	< 110 U
12672-29-6	**Aroclor 1248**	**110**	**690**
11097-69-1	**Aroclor 1254**	**110**	**1,100**
11096-82-5	**Aroclor 1260**	**110**	**900**
11104-28-2	Aroclor 1221	110	< 110 U
11141-16-5	Aroclor 1232	110	< 110 U
37324-23-5	Aroclor 1262	110	< 110 U
11100-14-4	Aroclor 1268	110	< 110 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	113%
Tetrachlorometaxylene	81.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC23-0-1.3
SAMPLE

Lab Sample ID: QM57A
LIMS ID: 10-5375
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 20:33
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	**Aroclor 1248**	**39**	**110**
11097-69-1	**Aroclor 1254**	**39**	**300**
11096-82-5	**Aroclor 1260**	**39**	**390**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	75.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC23-1.3-3.2
SAMPLE

Lab Sample ID: QM57B
LIMS ID: 10-5376
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 07:39
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.33 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 50.0
Silica Gel: Yes

Percent Moisture: 47.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	600	< 600 U
53469-21-9	Aroclor 1242	600	< 600 U
12672-29-6	**Aroclor 1248**	**600**	**3,200**
11097-69-1	**Aroclor 1254**	**600**	**6,500**
11096-82-5	**Aroclor 1260**	**600**	**7,900**
11104-28-2	Aroclor 1221	600	< 600 U
11141-16-5	Aroclor 1232	600	< 600 U
37324-23-5	Aroclor 1262	600	< 600 U
11100-14-4	Aroclor 1268	600	< 600 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC26-0-2.7
SAMPLE

Lab Sample ID: QM57C
LIMS ID: 10-5377
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 22:07
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 22.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**34**
11097-69-1	**Aroclor 1254**	**20**	**91**
11096-82-5	**Aroclor 1260**	**20**	**110**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	89.5%
Tetrachlorometaxylene	81.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC26-2.7-4
SAMPLE

Lab Sample ID: QM57D
LIMS ID: 10-5378
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/17/10 19:05
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 24.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	116%
Tetrachlorometaxylene	83.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC27-0-2
SAMPLE

Lab Sample ID: QM57E
LIMS ID: 10-5379
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/18/10 22:31
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 11.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 54.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	88	< 88 U
53469-21-9	Aroclor 1242	88	< 88 U
12672-29-6	**Aroclor 1248**	**88**	**1,200**
11097-69-1	**Aroclor 1254**	**88**	**1,500**
11096-82-5	**Aroclor 1260**	**88**	**860**
11104-28-2	Aroclor 1221	88	< 88 U
11141-16-5	Aroclor 1232	88	< 88 U
37324-23-5	Aroclor 1262	88	< 88 U
11100-14-4	Aroclor 1268	88	< 88 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.8%
Tetrachlorometaxylene	71.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC27-2-4
SAMPLE

Lab Sample ID: QM57F
LIMS ID: 10-5380
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 23:41
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 9.95 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 51.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	100	< 100 U
53469-21-9	Aroclor 1242	100	< 100 U
12672-29-6	**Aroclor 1248**	**100**	**1,300**
11097-69-1	**Aroclor 1254**	**100**	**2,400**
11096-82-5	**Aroclor 1260**	**100**	**3,900**
11104-28-2	Aroclor 1221	100	< 100 U
11141-16-5	Aroclor 1232	100	< 100 U
37324-23-5	Aroclor 1262	100	< 100 U
11100-14-4	Aroclor 1268	100	< 100 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	111%
Tetrachlorometaxylene	72.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC29-0-2
SAMPLE

Lab Sample ID: QM57W
LIMS ID: 10-5435
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 08:02
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 50.0
Silica Gel: Yes

Percent Moisture: 49.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	390	< 390 U
53469-21-9	Aroclor 1242	390	< 390 U
12672-29-6	Aroclor 1248	490	< 490 Y
11097-69-1	**Aroclor 1254**	**390**	**4,200**
11096-82-5	**Aroclor 1260**	**390**	**5,800**
11104-28-2	Aroclor 1221	390	< 390 U
11141-16-5	Aroclor 1232	390	< 390 U
37324-23-5	Aroclor 1262	390	< 390 U
11100-14-4	Aroclor 1268	390	< 390 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC29-2-3.9
SAMPLE

Lab Sample ID: QM57X
LIMS ID: 10-5436
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/17/10 22:37
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	9.9	< 9.9 Y
11097-69-1	**Aroclor 1254**	**4.0**	**30**
11096-82-5	**Aroclor 1260**	**4.0**	**74**
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	95.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC30-0-2
SAMPLE

Lab Sample ID: QM57G
LIMS ID: 10-5381
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 00:05
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**160**
11097-69-1	**Aroclor 1254**	**20**	**290**
11096-82-5	**Aroclor 1260**	**20**	**230**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.5%
Tetrachlorometaxylene	78.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC30-2-4.3
SAMPLE

Lab Sample ID: QM57H
LIMS ID: 10-5382
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 00:28
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 43.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	35	< 35 U
53469-21-9	Aroclor 1242	35	< 35 U
12672-29-6	**Aroclor 1248**	**35**	**180**
11097-69-1	**Aroclor 1254**	**35**	**310**
11096-82-5	**Aroclor 1260**	**35**	**380**
11104-28-2	Aroclor 1221	35	< 35 U
11141-16-5	Aroclor 1232	35	< 35 U
37324-23-5	Aroclor 1262	35	< 35 U
11100-14-4	Aroclor 1268	35	< 35 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	94.6%
Tetrachlorometaxylene	77.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC32-0-2
SAMPLE

Lab Sample ID: QM57I
LIMS ID: 10-5383
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 00:52
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	78	< 78 U
53469-21-9	Aroclor 1242	78	< 78 U
12672-29-6	**Aroclor 1248**	**78**	**1,100**
11097-69-1	**Aroclor 1254**	**78**	**1,600**
11096-82-5	**Aroclor 1260**	**78**	**1,500**
11104-28-2	Aroclor 1221	78	< 78 U
11141-16-5	Aroclor 1232	78	< 78 U
37324-23-5	Aroclor 1262	78	< 78 U
11100-14-4	Aroclor 1268	78	< 78 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	76.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC32-2-4
SAMPLE

Lab Sample ID: QM57J
LIMS ID: 10-5384
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 01:15
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 9.94 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 51.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	100	< 100 U
53469-21-9	Aroclor 1242	100	< 100 U
12672-29-6	Aroclor 1248	500	< 500 Y
11097-69-1	**Aroclor 1254**	**100**	**3,600**
11096-82-5	**Aroclor 1260**	**100**	**2,900**
11104-28-2	Aroclor 1221	100	< 100 U
11141-16-5	Aroclor 1232	100	< 100 U
37324-23-5	Aroclor 1262	100	< 100 U
11100-14-4	Aroclor 1268	100	< 100 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	72.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC33-0-2
SAMPLE

Lab Sample ID: QM80A
LIMS ID: 10-5591
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 16:08
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 43.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	35	< 35 U
53469-21-9	Aroclor 1242	35	< 35 U
12672-29-6	**Aroclor 1248**	**35**	**860**
11097-69-1	**Aroclor 1254**	**35**	**1,000**
11096-82-5	**Aroclor 1260**	**35**	**1,000**
11104-28-2	Aroclor 1221	35	< 35 U
11141-16-5	Aroclor 1232	35	< 35 U
37324-23-5	Aroclor 1262	35	< 35 U
11100-14-4	Aroclor 1268	35	< 35 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	112%
Tetrachlorometaxylene	81.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC33-2-3.5
SAMPLE

Lab Sample ID: QM80B
LIMS ID: 10-5592
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/04/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 16:32
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 45.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	36	< 36 U
53469-21-9	Aroclor 1242	36	< 36 U
12672-29-6	**Aroclor 1248**	**36**	**1,100**
11097-69-1	**Aroclor 1254**	**36**	**1,200**
11096-82-5	**Aroclor 1260**	**36**	**1,200**
11104-28-2	Aroclor 1221	36	< 36 U
11141-16-5	Aroclor 1232	36	< 36 U
37324-23-5	Aroclor 1262	36	< 36 U
11100-14-4	Aroclor 1268	36	< 36 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	130%
Tetrachlorometaxylene	79.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC35-0-2
SAMPLE

Lab Sample ID: QL56M
LIMS ID: 10-4789
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/24/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 18:32
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 36.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	**Aroclor 1242**	**19**	**200**
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	**Aroclor 1254**	**19**	**280**
11096-82-5	**Aroclor 1260**	**19**	**260**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U
37324-23-5	Aroclor 1262	19	< 19 U
11100-14-4	Aroclor 1268	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	66.1%
Tetrachlorometaxylene	65.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC35-2-4
SAMPLE

Lab Sample ID: QL56N
LIMS ID: 10-4790
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/24/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/10/10 18:53
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 23.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	**Aroclor 1242**	**20**	**29**
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	**Aroclor 1254**	**20**	**33 P**
11096-82-5	**Aroclor 1260**	**20**	**30**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	69.1%
Tetrachlorometaxylene	66.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC37-0-2
SAMPLE

Lab Sample ID: QL86G
LIMS ID: 10-4954
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 02:29
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	**Aroclor 1248**	**39**	**130**
11097-69-1	**Aroclor 1254**	**39**	**150**
11096-82-5	**Aroclor 1260**	**39**	**120**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	83.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC37-2-3.9
SAMPLE

Lab Sample ID: QL86H
LIMS ID: 10-4955
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 19:48
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 24.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	134%
Tetrachlorometaxylene	99.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC38-0-0.8
SAMPLE

Lab Sample ID: QL86I
LIMS ID: 10-4956
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 20:11
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	132%
Tetrachlorometaxylene	99.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC38-0.8-2
SAMPLE

Lab Sample ID: QL86J
LIMS ID: 10-4957
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 20:35
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 22.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	136%
Tetrachlorometaxylene	99.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC41-0-0.6
SAMPLE

Lab Sample ID: QL56O
LIMS ID: 10-4791
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/11/10 00:34
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.6%
Tetrachlorometaxylene	69.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC41-0.6-2
SAMPLE

Lab Sample ID: QL56P
LIMS ID: 10-4792
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/11/10 00:55
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	67.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC43-0-1.3
SAMPLE

Lab Sample ID: QL86K
LIMS ID: 10-4958
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 02:53
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 6.73 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 34.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	**Aroclor 1248**	**150**	**330**
11097-69-1	**Aroclor 1254**	**150**	**510**
11096-82-5	**Aroclor 1260**	**150**	**310**
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	99.5%
Tetrachlorometaxylene	83.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC43-1.3-4
SAMPLE

Lab Sample ID: QL86L
LIMS ID: 10-4959
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 04:04
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 14.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 28.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	69	< 69 U
53469-21-9	Aroclor 1242	69	< 69 U
12672-29-6	**Aroclor 1248**	**69**	**300**
11097-69-1	**Aroclor 1254**	**69**	**440**
11096-82-5	**Aroclor 1260**	**69**	**310**
11104-28-2	Aroclor 1221	69	< 69 U
11141-16-5	Aroclor 1232	69	< 69 U
37324-23-5	Aroclor 1262	69	< 69 U
11100-14-4	Aroclor 1268	69	< 69 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	118%
Tetrachlorometaxylene	84.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC45-0-1
SAMPLE

Lab Sample ID: QL56Q
LIMS ID: 10-4793
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/11/10 01:16
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 21.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.5%
Tetrachlorometaxylene	103%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC45-1-1.7
SAMPLE

Lab Sample ID: QL56R
LIMS ID: 10-4794
Matrix: Sediment
Data Release Authorized:
Reported: 03/11/10

QC Report No: QL56-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 02/25/10
Date Received: 02/25/10

Date Extracted: 03/03/10
Date Analyzed: 03/11/10 01:38
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 28.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.6%
Tetrachlorometaxylene	70.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC46-0-2.3
SAMPLE

Lab Sample ID: QL86M
LIMS ID: 10-4960
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 20:58
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**4.0**	**9.9**
11097-69-1	**Aroclor 1254**	**4.0**	**16**
11096-82-5	**Aroclor 1260**	**4.0**	**24**
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	134%
Tetrachlorometaxylene	107%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC46-2.3-4
SAMPLE

Lab Sample ID: QL86N
LIMS ID: 10-4961
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 21:22
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	139%
Tetrachlorometaxylene	99.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC48-0-2
SAMPLE

Lab Sample ID: QM80E
LIMS ID: 10-5595
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 18:06
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 15.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 41.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	**Aroclor 1248**	**33**	**390**
11097-69-1	**Aroclor 1254**	**33**	**640**
11096-82-5	**Aroclor 1260**	**33**	**680**
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	105%
Tetrachlorometaxylene	74.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC48-2-4.7
SAMPLE

Lab Sample ID: QM80F
LIMS ID: 10-5596
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/16/10 07:11
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 25.0
Silica Gel: Yes

Percent Moisture: 44.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	99	< 99 U
53469-21-9	Aroclor 1242	99	< 99 U
12672-29-6	**Aroclor 1248**	**99**	**960**
11097-69-1	**Aroclor 1254**	**99**	**1,200**
11096-82-5	**Aroclor 1260**	**99**	**1,300**
11104-28-2	Aroclor 1221	99	< 99 U
11141-16-5	Aroclor 1232	99	< 99 U
37324-23-5	Aroclor 1262	99	< 99 U
11100-14-4	Aroclor 1268	99	< 99 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	83.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC50-0-1.6
SAMPLE

Lab Sample ID: QM80G
LIMS ID: 10-5597
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 18:54
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 36.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**62**
11097-69-1	**Aroclor 1254**	**20**	**140**
11096-82-5	**Aroclor 1260**	**20**	**240**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	102%
Tetrachlorometaxylene	78.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC50-1.6-4
SAMPLE

Lab Sample ID: QM80H
LIMS ID: 10-5598
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/16/10 00:51
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 28.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	85.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC51-0-2
SAMPLE

Lab Sample ID: QM57K
LIMS ID: 10-5423
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/17/10 21:03
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in μg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	116%
Tetrachlorometaxylene	79.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC51-2-3.8
SAMPLE

Lab Sample ID: QM57L
LIMS ID: 10-5424
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/04/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/17/10 21:27
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 27.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	118%
Tetrachlorometaxylene	84.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC52-0-2
SAMPLE

Lab Sample ID: QM80I
LIMS ID: 10-5599
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 20:52
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 15.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 41.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	**Aroclor 1248**	**33**	**1,200**
11097-69-1	**Aroclor 1254**	**33**	**1,300**
11096-82-5	**Aroclor 1260**	**33**	**880**
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	108%
Tetrachlorometaxylene	75.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC52-2-4
SAMPLE

Lab Sample ID: QM80J
LIMS ID: 10-5600
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 21:16
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**35**
11097-69-1	**Aroclor 1254**	**20**	**72**
11096-82-5	**Aroclor 1260**	**20**	**70**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	101%
Tetrachlorometaxylene	82.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC53-0-2
SAMPLE

Lab Sample ID: QM80K
LIMS ID: 10-5601
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 21:39
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.4 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 33.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	37	< 37 U
53469-21-9	Aroclor 1242	37	< 37 U
12672-29-6	**Aroclor 1248**	**37**	**150**
11097-69-1	**Aroclor 1254**	**37**	**330**
11096-82-5	**Aroclor 1260**	**37**	**400**
11104-28-2	Aroclor 1221	37	< 37 U
11141-16-5	Aroclor 1232	37	< 37 U
37324-23-5	Aroclor 1262	37	< 37 U
11100-14-4	Aroclor 1268	37	< 37 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	101%
Tetrachlorometaxylene	84.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC53-2-4
SAMPLE

Lab Sample ID: QM80L
LIMS ID: 10-5602
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 22:03
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 33.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**430**
11097-69-1	**Aroclor 1254**	**20**	**500**
11096-82-5	**Aroclor 1260**	**20**	**410**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	103%
Tetrachlorometaxylene	76.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC54-0-2
SAMPLE

Lab Sample ID: QM80M
LIMS ID: 10-5603
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 22:26
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 18.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 29.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	**Aroclor 1248**	**28**	**700**
11097-69-1	**Aroclor 1254**	**28**	**900**
11096-82-5	**Aroclor 1260**	**28**	**450**
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U
37324-23-5	Aroclor 1262	28	< 28 U
11100-14-4	Aroclor 1268	28	< 28 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	129%
Tetrachlorometaxylene	81.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC54-2-4
SAMPLE

Lab Sample ID: QM80N
LIMS ID: 10-5604
Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

QC Report No: QM80-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Date Sampled: 03/05/10
Date Received: 03/05/10

Date Extracted: 03/11/10
Date Analyzed: 03/15/10 22:50
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 44.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	36	< 36 U
53469-21-9	Aroclor 1242	36	< 36 U
12672-29-6	**Aroclor 1248**	**36**	**390**
11097-69-1	**Aroclor 1254**	**36**	**1,100**
11096-82-5	**Aroclor 1260**	**36**	**1,700**
11104-28-2	Aroclor 1221	36	< 36 U
11141-16-5	Aroclor 1232	36	< 36 U
37324-23-5	Aroclor 1262	36	< 36 U
11100-14-4	Aroclor 1268	36	< 36 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	75.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC55-0-2
SAMPLE

Lab Sample ID: QL86O
LIMS ID: 10-4962
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 04:27
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	**Aroclor 1248**	**38**	**56**
11097-69-1	**Aroclor 1254**	**38**	**170**
11096-82-5	**Aroclor 1260**	**38**	**130**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U
37324-23-5	Aroclor 1262	38	< 38 U
11100-14-4	Aroclor 1268	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	114%
Tetrachlorometaxylene	83.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC55-2-4
SAMPLE

Lab Sample ID: QL86P
LIMS ID: 10-4963
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 21:46
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	**Aroclor 1254**	**3.9**	**9.2**
11096-82-5	**Aroclor 1260**	**3.9**	**5.5**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	135%
Tetrachlorometaxylene	100%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC57-0-2
SAMPLE

Lab Sample ID: QM30O
LIMS ID: 10-5185
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 03:23
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 18.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 24.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	53	< 53 U
53469-21-9	Aroclor 1242	53	< 53 U
12672-29-6	Aroclor 1248	53	< 53 U
11097-69-1	**Aroclor 1254**	**53**	**120**
11096-82-5	**Aroclor 1260**	**53**	**190**
11104-28-2	Aroclor 1221	53	< 53 U
11141-16-5	Aroclor 1232	53	< 53 U
37324-23-5	Aroclor 1262	53	< 53 U
11100-14-4	Aroclor 1268	53	< 53 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.5%
Tetrachlorometaxylene	71.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC57-2-4
SAMPLE

Lab Sample ID: QM30P
LIMS ID: 10-5186
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 18:51
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 20.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.4%
Tetrachlorometaxylene	67.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC58-0-1.8
SAMPLE

Lab Sample ID: QM30K
LIMS ID: 10-5181
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 03:01
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 50.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	79	< 79 U
53469-21-9	**Aroclor 1242**	**79**	**160**
12672-29-6	Aroclor 1248	79	< 79 U
11097-69-1	**Aroclor 1254**	**79**	**780 P**
11096-82-5	**Aroclor 1260**	**79**	**620**
11104-28-2	Aroclor 1221	79	< 79 U
11141-16-5	Aroclor 1232	79	< 79 U
37324-23-5	Aroclor 1262	79	< 79 U
11100-14-4	Aroclor 1268	79	< 79 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	71.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC58-1.8-4
SAMPLE

Lab Sample ID: QM30L
LIMS ID: 10-5182
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 17:47
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 28.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	6.0	< 6.0 Y
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	98.4%
Tetrachlorometaxylene	69.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC59-0-2
SAMPLE

Lab Sample ID: QM30M
LIMS ID: 10-5183
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 18:09
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.2%
Tetrachlorometaxylene	67.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC59-2-4
SAMPLE

Lab Sample ID: QM30N
LIMS ID: 10-5184
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 18:30
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	89.0%
Tetrachlorometaxylene	69.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC60-0-0.8
SAMPLE

Lab Sample ID: QM30Q
LIMS ID: 10-5187
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 03:44
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 36.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	38	< 38 U
11097-69-1	**Aroclor 1254**	**38**	**120**
11096-82-5	**Aroclor 1260**	**38**	**160**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U
37324-23-5	Aroclor 1262	38	< 38 U
11100-14-4	Aroclor 1268	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.0%
Tetrachlorometaxylene	76.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC60-0.8-3
SAMPLE

Lab Sample ID: QM30R
LIMS ID: 10-5188
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 19:55
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 33.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	**Aroclor 1242**	**3.9**	**4.7**
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	**Aroclor 1254**	**3.9**	**13 P**
11096-82-5	**Aroclor 1260**	**3.9**	**9.7**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.5%
Tetrachlorometaxylene	69.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC61-0-1
SAMPLE

Lab Sample ID: QM30S
LIMS ID: 10-5189
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/09/10
Date Analyzed: 03/14/10 04:05
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 30.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	**Aroclor 1248**	**39**	**76 P**
11097-69-1	**Aroclor 1254**	**39**	**110 P**
11096-82-5	**Aroclor 1260**	**39**	**94**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	71.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC61-1-3
SAMPLE

Lab Sample ID: QM30T
LIMS ID: 10-5190
Matrix: Sediment
Data Release Authorized:
Reported: 03/17/10

QC Report No: QM30-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Date Extracted: 03/08/10
Date Analyzed: 03/13/10 20:17
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 26.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	**Aroclor 1248**	**3.8**	**6.4 P**
11097-69-1	**Aroclor 1254**	**3.8**	**11**
11096-82-5	**Aroclor 1260**	**3.8**	**10**
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	91.8%
Tetrachlorometaxylene	69.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC63-0-2
SAMPLE

Lab Sample ID: QM57M
LIMS ID: 10-5425
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/17/10 21:50
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 27.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	115%
Tetrachlorometaxylene	78.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC63-2-4
SAMPLE

Lab Sample ID: QM57N
LIMS ID: 10-5426
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/17/10 22:14
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 28.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	110%
Tetrachlorometaxylene	80.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC201-0-2.5
SAMPLE

Lab Sample ID: QL86Q
LIMS ID: 10-4964
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 04:51
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 15.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 39.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	65	< 65 U
53469-21-9	Aroclor 1242	65	< 65 U
12672-29-6	**Aroclor 1248**	**65**	**530**
11097-69-1	**Aroclor 1254**	**65**	**800**
11096-82-5	**Aroclor 1260**	**65**	**800**
11104-28-2	Aroclor 1221	65	< 65 U
11141-16-5	Aroclor 1232	65	< 65 U
37324-23-5	Aroclor 1262	65	< 65 U
11100-14-4	Aroclor 1268	65	< 65 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	114%
Tetrachlorometaxylene	81.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC201-2.5-4
SAMPLE

Lab Sample ID: QL86R
LIMS ID: 10-4965
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 05:14
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 24.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	40	< 40 U
53469-21-9	Aroclor 1242	40	< 40 U
12672-29-6	**Aroclor 1248**	**40**	**120**
11097-69-1	**Aroclor 1254**	**40**	**220**
11096-82-5	**Aroclor 1260**	**40**	**170**
11104-28-2	Aroclor 1221	40	< 40 U
11141-16-5	Aroclor 1232	40	< 40 U
37324-23-5	Aroclor 1262	40	< 40 U
11100-14-4	Aroclor 1268	40	< 40 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	103%
Tetrachlorometaxylene	83.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC202-0-2
SAMPLE

Lab Sample ID: QL86S
LIMS ID: 10-4966
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/11/10 06:25
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 27.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	**Aroclor 1248**	**39**	**140**
11097-69-1	**Aroclor 1254**	**39**	**170**
11096-82-5	**Aroclor 1260**	**39**	**130**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	108%
Tetrachlorometaxylene	83.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC202-2-3.9
SAMPLE

Lab Sample ID: QL86T
LIMS ID: 10-4967
Matrix: Sediment
Data Release Authorized:
Reported: 03/12/10

QC Report No: QL86-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Date Extracted: 03/05/10
Date Analyzed: 03/10/10 22:09
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	140%
Tetrachlorometaxylene	98.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC203-0-2
SAMPLE

Lab Sample ID: QM57S
LIMS ID: 10-5431
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 01:39
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 48.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	**Aroclor 1248**	**20**	**160**
11097-69-1	**Aroclor 1254**	**20**	**250**
11096-82-5	**Aroclor 1260**	**20**	**270**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.4%
Tetrachlorometaxylene	76.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC203-2-4.3
SAMPLE

Lab Sample ID: QM57T
LIMS ID: 10-5432
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 02:03
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 44.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	**Aroclor 1248**	**19**	**150**
11097-69-1	**Aroclor 1254**	**19**	**230**
11096-82-5	**Aroclor 1260**	**19**	**240**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U
37324-23-5	Aroclor 1262	19	< 19 U
11100-14-4	Aroclor 1268	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	101%
Tetrachlorometaxylene	78.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC204-0-2
SAMPLE

Lab Sample ID: QM57U
LIMS ID: 10-5433
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 02:26
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 49.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	78	< 78 U
53469-21-9	Aroclor 1242	78	< 78 U
12672-29-6	**Aroclor 1248**	**78**	**940**
11097-69-1	**Aroclor 1254**	**78**	**1,200**
11096-82-5	**Aroclor 1260**	**78**	**1,200**
11104-28-2	Aroclor 1221	78	< 78 U
11141-16-5	Aroclor 1232	78	< 78 U
37324-23-5	Aroclor 1262	78	< 78 U
11100-14-4	Aroclor 1268	78	< 78 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	102%
Tetrachlorometaxylene	73.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SC204-2-4
SAMPLE

Lab Sample ID: QM57V
LIMS ID: 10-5434
Matrix: Sediment
Data Release Authorized:
Reported: 03/19/10

QC Report No: QM57-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47
Date Sampled: 03/03/10
Date Received: 03/04/10

Date Extracted: 03/12/10
Date Analyzed: 03/19/10 02:50
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 7.56 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 51.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	130	< 130 U
53469-21-9	Aroclor 1242	130	< 130 U
12672-29-6	Aroclor 1248	330	< 330 Y
11097-69-1	**Aroclor 1254**	**130**	**3,300**
11096-82-5	**Aroclor 1260**	**130**	**2,500**
11104-28-2	Aroclor 1221	130	< 130 U
11141-16-5	Aroclor 1232	130	< 130 U
37324-23-5	Aroclor 1262	130	< 130 U
11100-14-4	Aroclor 1268	130	< 130 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	123%
Tetrachlorometaxylene	78.8%

FORM I

GEOTECHNICAL

GEOTECHNICAL ANALYSIS DATA SHEET
Specific Gravity by Method ASTM D854

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: QL
Reported: 03/08/10
Date Received: 02/24/10

QC Report No: QL24-Windward Environmental, LLC
Project:
EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC05-2.1 QL24A 10-4569	02/23/10	Sediment	03/08/10 11:48	2.62
EW10-SC05-4.9 QL24B 10-4570	02/23/10	Sediment	03/08/10 11:48	2.72
EW10-SC11-3 QL24C 10-4571	02/23/10	Sediment	03/08/10 11:48	2.67
EW10-SC11-5 QL24D 10-4572	02/23/10	Sediment	03/08/10 11:48	2.68
EW10-SC11-6.7 QL24E 10-4573	02/23/10	Sediment	03/08/10 11:48	2.68

Reported in Std Units

GEOTECHNICAL ANALYSIS DATA SHEET
Specific Gravity by Method ASTM D854

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: BL
Reported: 03/25/10
Date Received: 03/11/10

QC Report No: QN43-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC14-0.8 QN43A 10-6110	03/09/10	Sediment	03/25/10 14:19	2.44
EW10-SC14-2.4 QN43B 10-6111	03/09/10	Sediment	03/25/10 14:19	2.67
EW10-SC14-7.5 QN43C 10-6112	03/09/10	Sediment	03/25/10 14:19	2.68
EW10-SC22-1 QN43D 10-6113	03/08/10	Sediment	03/25/10 14:19	2.69
EW10-SC22-4 QN43E 10-6114	03/08/10	Sediment	03/25/10 14:19	2.70
EW10-SC36-0.5 QN43F 10-6115	03/09/10	Sediment	03/25/10 14:19	2.70
EW10-SC36-1.4 QN43G 10-6116	03/09/10	Sediment	03/25/10 14:19	2.64
EW10-SC36-6 QN43H 10-6117	03/09/10	Sediment	03/25/10 14:19	2.71
EW10-SC56-2 QN43I 10-6118	03/11/10	Sediment	03/25/10 14:19	2.68
EW10-SC56-4 QN43J 10-6119	03/11/10	Sediment	03/25/10 14:19	2.67
EW10-SC56-8.5 QN43K 10-6120	03/11/10	Sediment	03/25/10 14:19	2.67

Reported in Std Units

GEOTECHNICAL ANALYSIS DATA SHEET
Specific Gravity by Method ASTM D854

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: gs
Reported: 03/12/10
Date Received: 02/26/10

QC Report No: QL84-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
05-08-06-32

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC20-5.5 QL84A 10-4939	02/26/10	Sediment	03/11/10 11:24	2.70
EW10-SC20-10.5 QL84B 10-4940	02/26/10	Sediment	03/11/10 11:24	2.67
EW10-SC43-0.5 QL84C 10-4941	02/26/10	Sediment	03/11/10 11:24	2.64
EW10-SC43-7.6 QL84D 10-4942	02/26/10	Sediment	03/11/10 11:24	2.68

Reported in Std Units

GEOTECHNICAL ANALYSIS DATA SHEET
Specific Gravity by Method ASTM D854

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 03/15/10
Date Received: 03/03/10

QC Report No: QM44-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC30-2.0 QM44A 10-5293	03/03/10	Sediment	03/15/10 14:44	2.51
EW10-SC30-6.0 QM44B 10-5294	03/03/10	Sediment	03/15/10 14:44	2.62
EW10-SC30-10.8 QM44C 10-5295	03/03/10	Sediment	03/15/10 14:44	2.67
EW10-SC59-2 QM44D 10-5296	03/02/10	Sediment	03/15/10 14:44	2.66
EW10-SC59-3.5 QM44E 10-5297	03/02/10	Sediment	03/15/10 14:44	2.64
EW10-SC63-1.2 QM44F 10-5298	03/02/10	Sediment	03/15/10 14:44	2.60
EW10-SC63-3 QM44G 10-5299	03/02/10	Sediment	03/15/10 14:44	2.59

Reported in Std Units

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Specific Gravity by Method ASTM D854

Data Release Authorized: ok
Reported: 03/18/10
Date Received: 03/05/10

QC Report No: QM75-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC48-2 QM75A 10-5543	03/05/10	Sediment	03/18/10 10:11	2.40
EW10-SC48-8.9 QM75B 10-5544	03/05/10	Sediment	03/18/10 10:11	2.56
EW10-SC51-2 QM75C 10-5545	03/04/10	Sediment	03/18/10 10:11	2.54
EW10-SC51-8.9 QM75D 10-5546	03/04/10	Sediment	03/18/10 10:11	2.62

Reported in Std Units

GEOTECHNICAL ANALYSIS DATA SHEET
Wet Density by Method ASTM D2937

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: CR
Reported: 03/08/10
Date Received: 02/24/10

QC Report No: QL24-Windward Environmental, LLC
Project:
EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC05-2.1 QL24A 10-4569	02/23/10	Sediment	03/08/10 11:48	95.5
EW10-SC05-4.9 QL24B 10-4570	02/23/10	Sediment	03/08/10 11:48	101.2
EW10-SC11-3 QL24C 10-4571	02/23/10	Sediment	03/08/10 11:48	79.4
EW10-SC11-5 QL24D 10-4572	02/23/10	Sediment	03/08/10 11:48	84.2
EW10-SC11-6.7 QL24E 10-4573	02/23/10	Sediment	03/08/10 11:48	105.6

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Wet Density by Method ASTM D2937

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: gs
Reported: 03/12/10
Date Received: 02/26/10

QC Report No: QL84-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
05-08-06-32

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC20-5.5 QL84A 10-4939	02/26/10	Sediment	03/11/10 11:24	114.3
EW10-SC20-10.5 QL84B 10-4940	02/26/10	Sediment	03/11/10 11:24	107.8
EW10-SC43-0.5 QL84C 10-4941	02/26/10	Sediment	03/11/10 11:24	117.2
EW10-SC43-7.6 QL84D 10-4942	02/26/10	Sediment	03/11/10 11:24	124.6

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Wet Density by Method ASTM D2937

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: CR
Reported: 03/25/10
Date Received: 03/11/10

QC Report No: QN43-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC14-0.8 QN43A 10-6110	03/09/10	Sediment	03/25/10 14:19	66.7
EW10-SC14-2.4 QN43B 10-6111	03/09/10	Sediment	03/25/10 14:19	106.6
EW10-SC14-7.5 QN43C 10-6112	03/09/10	Sediment	03/25/10 14:19	99.8
EW10-SC22-1 QN43D 10-6113	03/08/10	Sediment	03/25/10 14:19	119.4
EW10-SC22-4 QN43E 10-6114	03/08/10	Sediment	03/25/10 14:19	110.3
EW10-SC36-0.5 QN43F 10-6115	03/09/10	Sediment	03/25/10 14:19	109.7
EW10-SC36-1.4 QN43G 10-6116	03/09/10	Sediment	03/25/10 14:19	103.7
EW10-SC36-6 QN43H 10-6117	03/09/10	Sediment	03/25/10 14:19	107.9
EW10-SC56-2 QN43I 10-6118	03/11/10	Sediment	03/25/10 14:19	72.0
EW10-SC56-4 QN43J 10-6119	03/11/10	Sediment	03/25/10 14:19	102.6
EW10-SC56-8.5 QN43K 10-6120	03/11/10	Sediment	03/25/10 14:19	111.9

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Wet Density by Method ASTM D2937

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 03/15/10
Date Received: 03/03/10

QC Report No: QM44-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC30-2.0 QM44A 10-5293	03/03/10	Sediment	03/15/10 14:44	72.4
EW10-SC30-6.0 QM44B 10-5294	03/03/10	Sediment	03/15/10 14:44	106.6
EW10-SC30-10.8 QM44C 10-5295	03/03/10	Sediment	03/15/10 14:44	107.1
EW10-SC59-2 QM44D 10-5296	03/02/10	Sediment	03/15/10 14:44	106.0
EW10-SC59-3.5 QM44E 10-5297	03/02/10	Sediment	03/15/10 14:44	107.3
EW10-SC63-1.2 QM44F 10-5298	03/02/10	Sediment	03/15/10 14:44	81.6
EW10-SC63-3 QM44G 10-5299	03/02/10	Sediment	03/15/10 14:44	98.9

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Wet Density by Method ASTM D2937

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: OR
Reported: 03/18/10
Date Received: 03/05/10

QC Report No: QM75-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC48-2 QM75A 10-5543	03/05/10	Sediment	03/18/10 10:11	85.2
EW10-SC48-8.9 QM75B 10-5544	03/05/10	Sediment	03/18/10 10:11	107.6
EW10-SC51-2 QM75C 10-5545	03/04/10	Sediment	03/18/10 10:11	93.7
EW10-SC51-8.9 QM75D 10-5546	03/04/10	Sediment	03/18/10 10:11	90.5

Reported in lb/ft3

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Dry Density by Method CalcDD

Data Release Authorized: QC Report No: QL24-Windward Environmental, LLC
Reported: 03/08/10 Project:
Date Received: 02/24/10 EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC05-2.1 QL24A 10-4569	02/23/10	Sediment	03/08/10 11:48	77.7
EW10-SC05-4.9 QL24B 10-4570	02/23/10	Sediment	03/08/10 11:48	81.4
EW10-SC11-3 QL24C 10-4571	02/23/10	Sediment	03/08/10 11:48	37.8
EW10-SC11-5 QL24D 10-4572	02/23/10	Sediment	03/08/10 11:48	52.7
EW10-SC11-6.7 QL24E 10-4573	02/23/10	Sediment	03/08/10 11:48	83.4

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Dry Density by Method CalcDD

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: ok
Reported: 03/25/10
Date Received: 03/11/10

QC Report No: QN43-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC14-0.8 QN43A 10-6110	03/09/10	Sediment	03/25/10 14:19	34.1
EW10-SC14-2.4 QN43B 10-6111	03/09/10	Sediment	03/25/10 14:19	92.4
EW10-SC14-7.5 QN43C 10-6112	03/09/10	Sediment	03/25/10 14:19	78.2
EW10-SC22-1 QN43D 10-6113	03/08/10	Sediment	03/25/10 14:19	89.0
EW10-SC22-4 QN43E 10-6114	03/08/10	Sediment	03/25/10 14:19	85.4
EW10-SC36-0.5 QN43F 10-6115	03/09/10	Sediment	03/25/10 14:19	96.6
EW10-SC36-1.4 QN43G 10-6116	03/09/10	Sediment	03/25/10 14:19	78.4
EW10-SC36-6 QN43H 10-6117	03/09/10	Sediment	03/25/10 14:19	85.0
EW10-SC56-2 QN43I 10-6118	03/11/10	Sediment	03/25/10 14:19	54.4
EW10-SC56-4 QN43J 10-6119	03/11/10	Sediment	03/25/10 14:19	75.1
EW10-SC56-8.5 QN43K 10-6120	03/11/10	Sediment	03/25/10 14:19	84.8

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Dry Density by Method CalcDD

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: gs
Reported: 03/12/10
Date Received: 02/26/10

QC Report No: QL84-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
05-08-06-32

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC20-5.5 QL84A 10-4939	02/26/10	Sediment	03/11/10 11:24	84.0
EW10-SC20-10.5 QL84B 10-4940	02/26/10	Sediment	03/11/10 11:24	83.7
EW10-SC43-0.5 QL84C 10-4941	02/26/10	Sediment	03/11/10 11:24	83.4
EW10-SC43-7.6 QL84D 10-4942	02/26/10	Sediment	03/11/10 11:24	98.8

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Dry Density by Method CalcDD

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: CR
Reported: 03/15/10
Date Received: 03/03/10

QC Report No: QM44-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC30-2.0 QM44A 10-5293	03/03/10	Sediment	03/15/10 14:44	39.8
EW10-SC30-6.0 QM44B 10-5294	03/03/10	Sediment	03/15/10 14:44	80.6
EW10-SC30-10.8 QM44C 10-5295	03/03/10	Sediment	03/15/10 14:44	83.3
EW10-SC59-2 QM44D 10-5296	03/02/10	Sediment	03/15/10 14:44	81.9
EW10-SC59-3.5 QM44E 10-5297	03/02/10	Sediment	03/15/10 14:44	80.3
EW10-SC63-1.2 QM44F 10-5298	03/02/10	Sediment	03/15/10 14:44	60.2
EW10-SC63-3 QM44G 10-5299	03/02/10	Sediment	03/15/10 14:44	69.6

Reported in lb/ft3

GEOTECHNICAL ANALYSIS DATA SHEET
Dry Density by Method CalcDD

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 03/18/10
Date Received: 03/05/10

QC Report No: QM75-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC48-2 QM75A 10-5543	03/05/10	Sediment	03/18/10 10:11	46.9
EW10-SC48-8.9 QM75B 10-5544	03/05/10	Sediment	03/18/10 10:11	82.0
EW10-SC51-2 QM75C 10-5545	03/04/10	Sediment	03/18/10 10:11	67.6
EW10-SC51-8.9 QM75D 10-5546	03/04/10	Sediment	03/18/10 10:11	69.8

Reported in lb/ft3

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

Data Release Authorized: CR
Reported: 03/08/10
Date Received: 02/24/10

QC Report No: QL24-Windward Environmental, LLC
Project:
EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC05-2.1 QL24A 10-4569	02/23/10	Sediment	03/08/10 11:48	22.94
EW10-SC05-4.9 QL24B 10-4570	02/23/10	Sediment	03/08/10 11:48	24.30
EW10-SC11-3 QL24C 10-4571	02/23/10	Sediment	03/08/10 11:48	110.3
EW10-SC11-5 QL24D 10-4572	02/23/10	Sediment	03/08/10 11:48	59.69
EW10-SC11-6.7 QL24E 10-4573	02/23/10	Sediment	03/08/10 11:48	26.56

Reported in Percent

GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: ~~~
Reported: 03/25/10
Date Received: 03/11/10

QC Report No: QN43-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC14-0.8 QN43A 10-6110	03/09/10	Sediment	03/25/10 14:19	95.70
EW10-SC14-2.4 QN43B 10-6111	03/09/10	Sediment	03/25/10 14:19	15.36
EW10-SC14-7.5 QN43C 10-6112	03/09/10	Sediment	03/25/10 14:19	27.67
EW10-SC22-1 QN43D 10-6113	03/08/10	Sediment	03/25/10 14:19	34.23
EW10-SC22-4 QN43E 10-6114	03/08/10	Sediment	03/25/10 14:19	29.13
EW10-SC36-0.5 QN43F 10-6115	03/09/10	Sediment	03/25/10 14:19	13.61
EW10-SC36-1.4 QN43G 10-6116	03/09/10	Sediment	03/25/10 14:19	32.28
EW10-SC36-6 QN43H 10-6117	03/09/10	Sediment	03/25/10 14:19	26.96
EW10-SC56-2 QN43I 10-6118	03/11/10	Sediment	03/25/10 14:19	32.46
EW10-SC56-4 QN43J 10-6119	03/11/10	Sediment	03/25/10 14:19	36.62
EW10-SC56-8.5 QN43K 10-6120	03/11/10	Sediment	03/25/10 14:19	31.92

Reported in Percent

GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: gs
Reported: 03/12/10
Date Received: 02/26/10

QC Report No: QL84-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
05-08-06-32

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC20-5.5 QL84A 10-4939	02/26/10	Sediment	03/11/10 11:24	36.01
EW10-SC20-10.5 QL84B 10-4940	02/26/10	Sediment	03/11/10 11:24	28.73
EW10-SC43-0.5 QL84C 10-4941	02/26/10	Sediment	03/11/10 11:24	40.55
EW10-SC43-7.6 QL84D 10-4942	02/26/10	Sediment	03/11/10 11:24	26.17

Reported in Percent

GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 03/15/10
Date Received: 03/03/10

QC Report No: QM44-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring
09-08-09-47

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC30-2.0 QM44A 10-5293	03/03/10	Sediment	03/15/10 14:44	82.02
EW10-SC30-6.0 QM44B 10-5294	03/03/10	Sediment	03/15/10 14:44	32.21
EW10-SC30-10.8 QM44C 10-5295	03/03/10	Sediment	03/15/10 14:44	28.59
EW10-SC59-2 QM44D 10-5296	03/02/10	Sediment	03/15/10 14:44	29.46
EW10-SC59-3.5 QM44E 10-5297	03/02/10	Sediment	03/15/10 14:44	33.55
EW10-SC63-1.2 QM44F 10-5298	03/02/10	Sediment	03/15/10 14:44	35.56
EW10-SC63-3 QM44G 10-5299	03/02/10	Sediment	03/15/10 14:44	42.06

Reported in Percent

GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

ANALYTICAL RESOURCES INCORPORATED

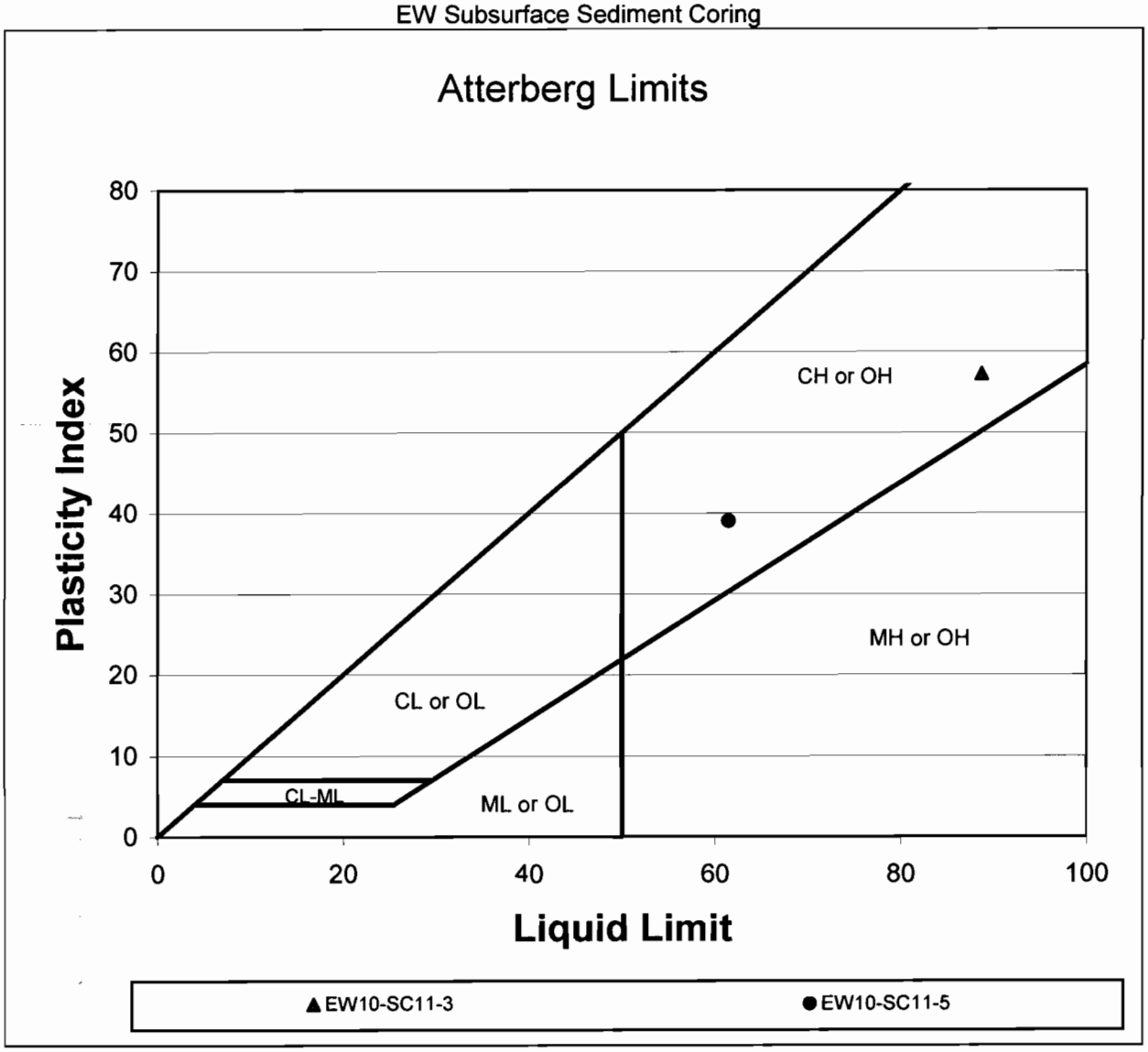
Data Release Authorized:
Reported: 03/18/10
Date Received: 03/05/10

QC Report No: QM75-Windward Environmental, LLC
Project: EW Subsurface Sediment Coring

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
EW10-SC48-2 QM75A 10-5543	03/05/10	Sediment	03/18/10 10:11	81.61
EW10-SC48-8.9 QM75B 10-5544	03/05/10	Sediment	03/18/10 10:11	31.27
EW10-SC51-2 QM75C 10-5545	03/04/10	Sediment	03/18/10 10:11	38.52
EW10-SC51-8.9 QM75D 10-5546	03/04/10	Sediment	03/18/10 10:11	29.64

Reported in Percent

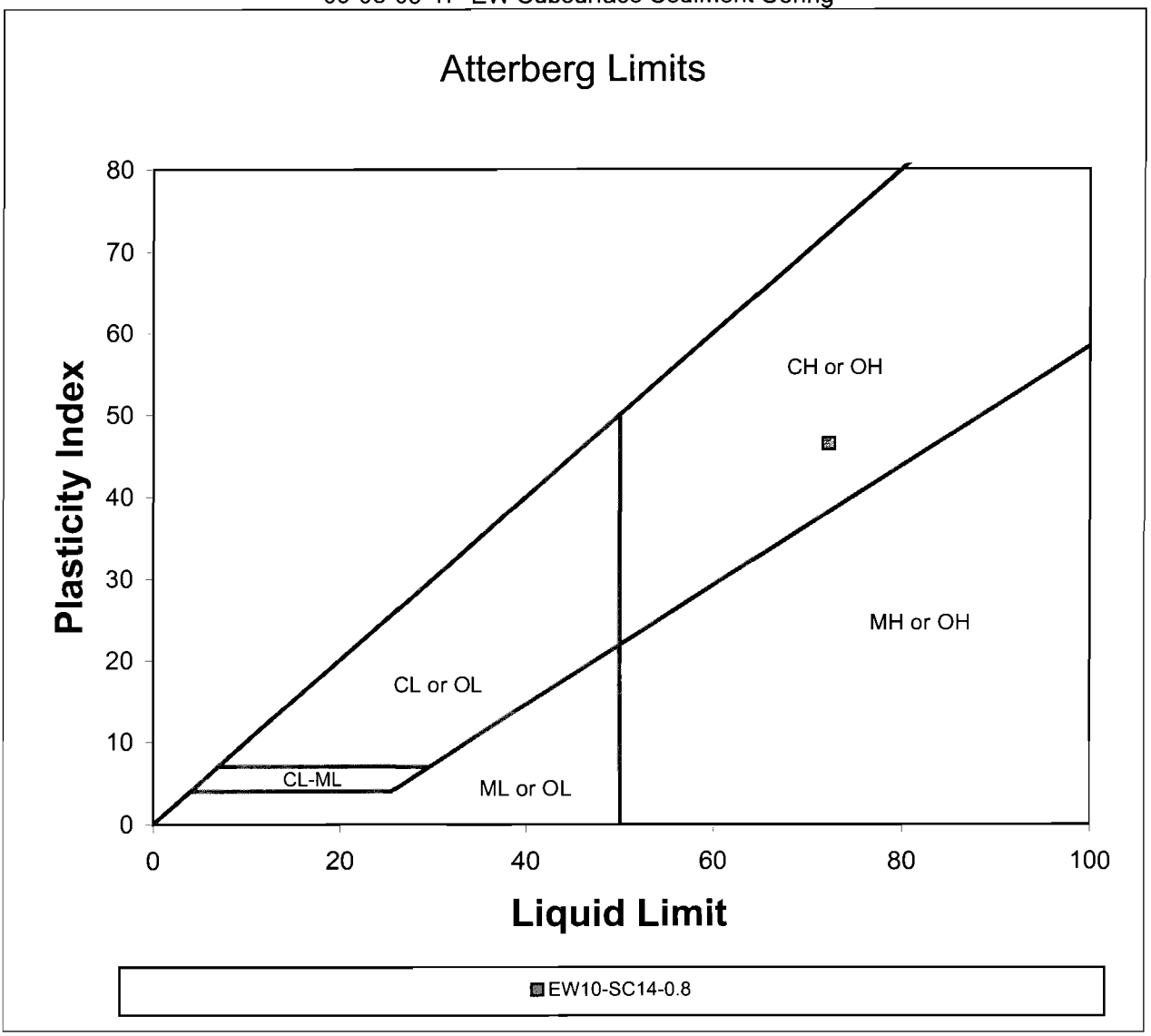
Windward Environmental, LLC
EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC05-2.1	22.94	NA	NA	NA	NP
EW10-SC05-4.9	24.30	NA	NA	NA	NP
EW10-SC11-3	110.35	57.3	88.7	31.4	CH
EW10-SC11-5	59.69	39.0	61.5	22.5	CH
EW10-SC11-6.7	26.56	NA	NA	NA	NP

QL24

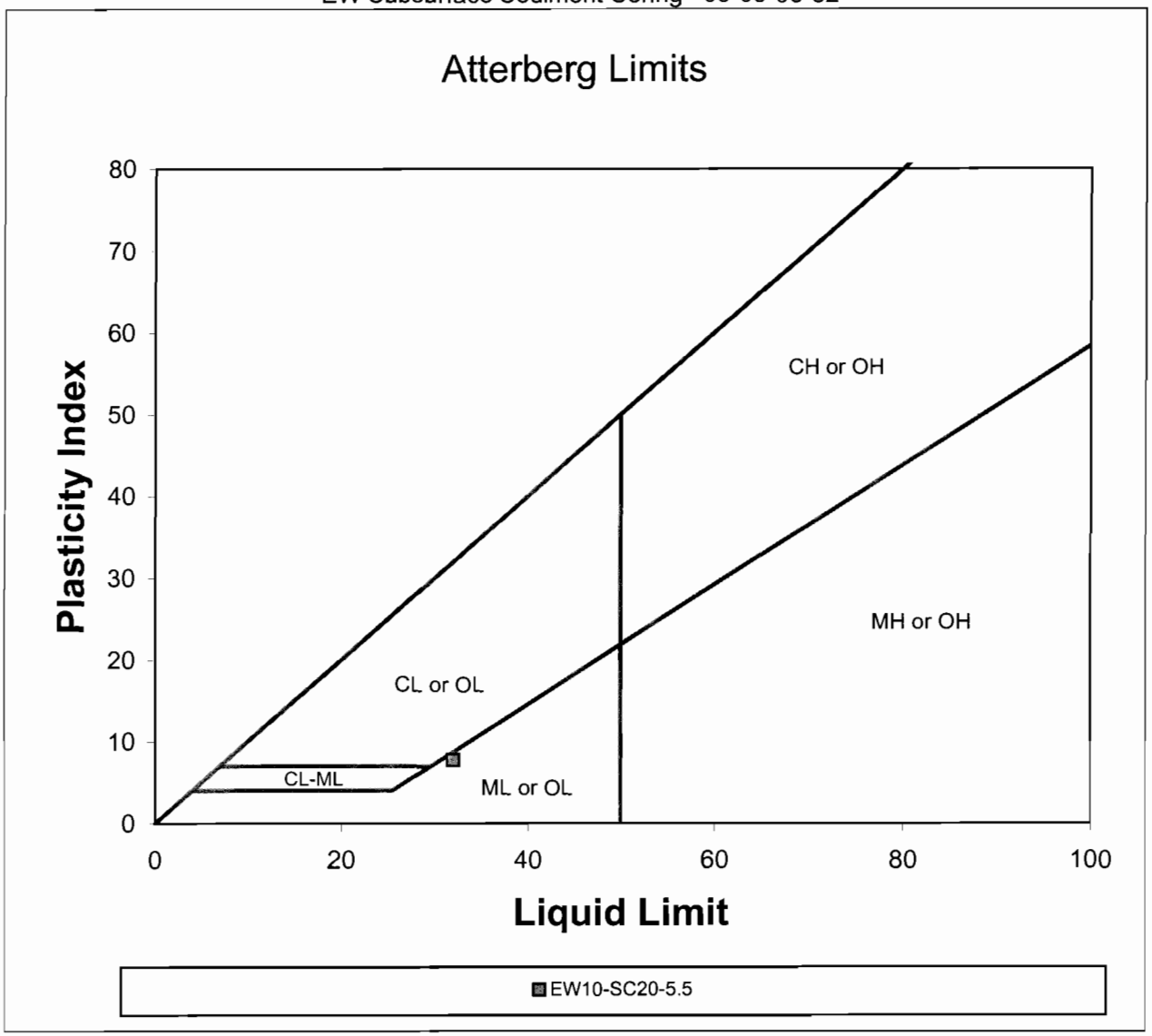
Windward Environmental, LLC
09-08-09-47 EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC14-0.8	96.39	46.5	72.3	25.8	OH
EW10-SC14-2.4	15.36	NA	NA	NA	NP
EW10-SC14-7.5	27.67	NA	NA	NA	NP
EW10-SC22-1	34.23	NA	NA	NA	NP
EW10-SC22-4	29.13	NA	NA	NA	NP

QN43

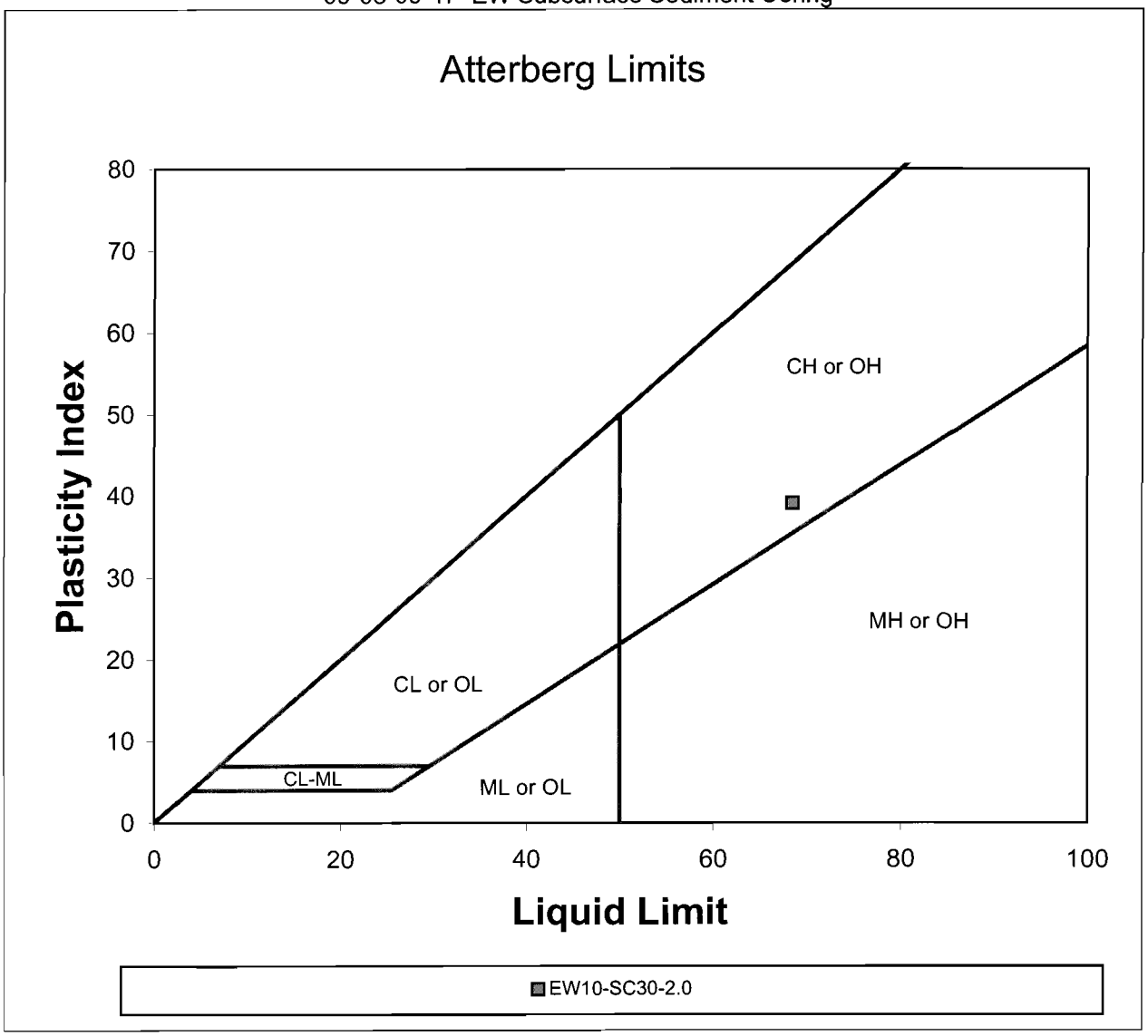
Windward Environmental, LLC
EW Subsurface Sediment Coring 05-08-06-32



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC20-5.5	36.01	7.8	32.0	24.2	ML
EW10-SC20-10.5	28.73	NA	NA	NA	NP
EW10-SC43-0.5	40.55	NA	NA	NA	NP
EW10-SC43-7.6	26.17	NA	NA	NA	NP

QL84

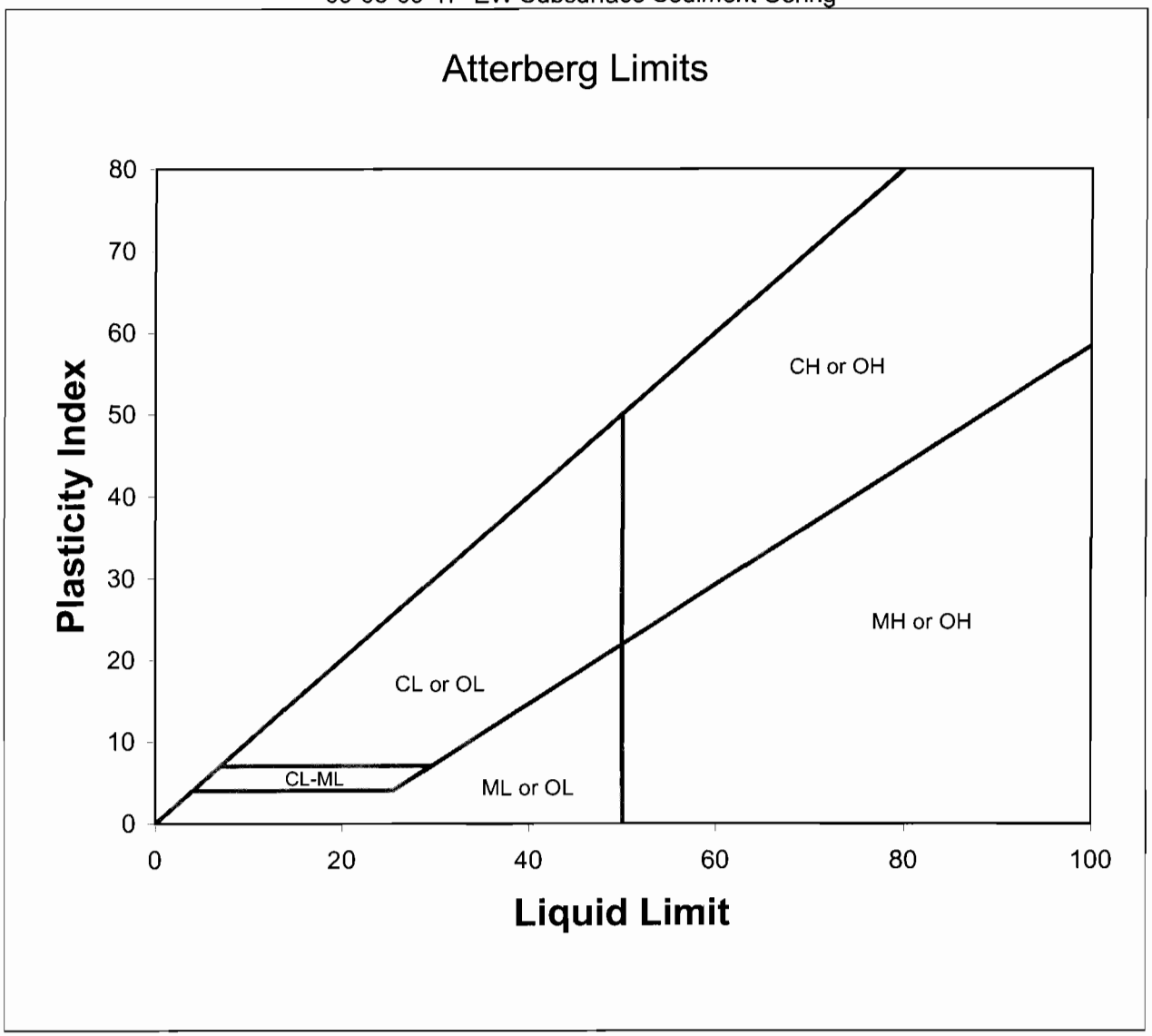
Windard Environmental, LLC
09-08-09-47 EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC30-2.0	82.02	39.1	68.5	29.4	CH
EW10-SC30-6.0	32.21	NA	NA	NA	NP
EW10-SC30-10.8	28.59	NA	NA	NA	NP
EW10-SC59-2	29.46	NA	NA	NA	NP
EW10-SC59-3.5	33.55	NA	NA	NA	NP

QM44

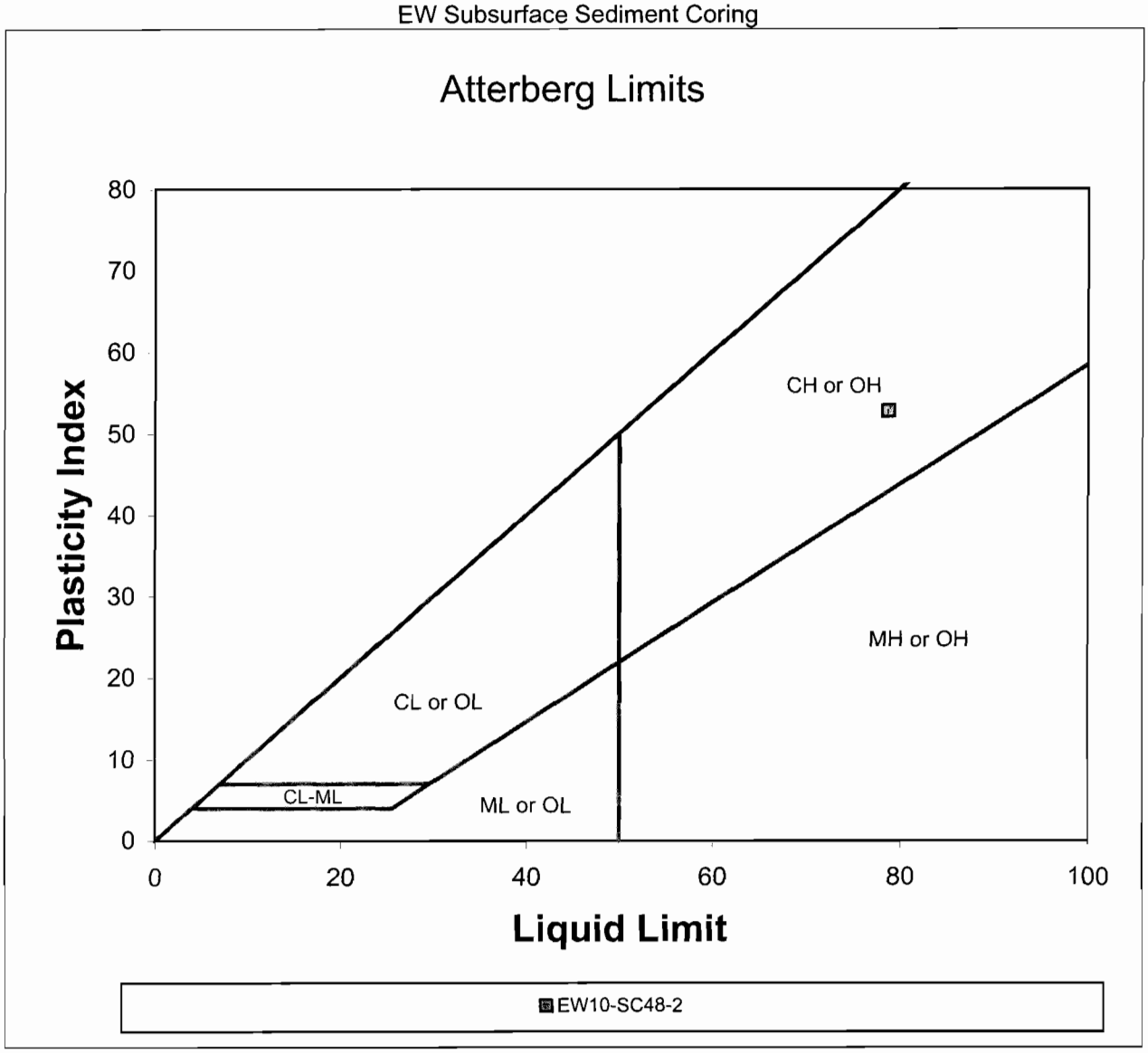
Windward Environmental, LLC
09-08-09-47 EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC36-0.5	13.61	NA	NA	NA	NP
EW10-SC36-1.4	32.28	NA	NA	NA	NP
EW10-SC36-6	26.96	NA	NA	NA	NP
EW10-SC56-2	32.46	NA	NA	NA	NP
EW10-SC56-4	36.62	NA	NA	NA	NP

QN43

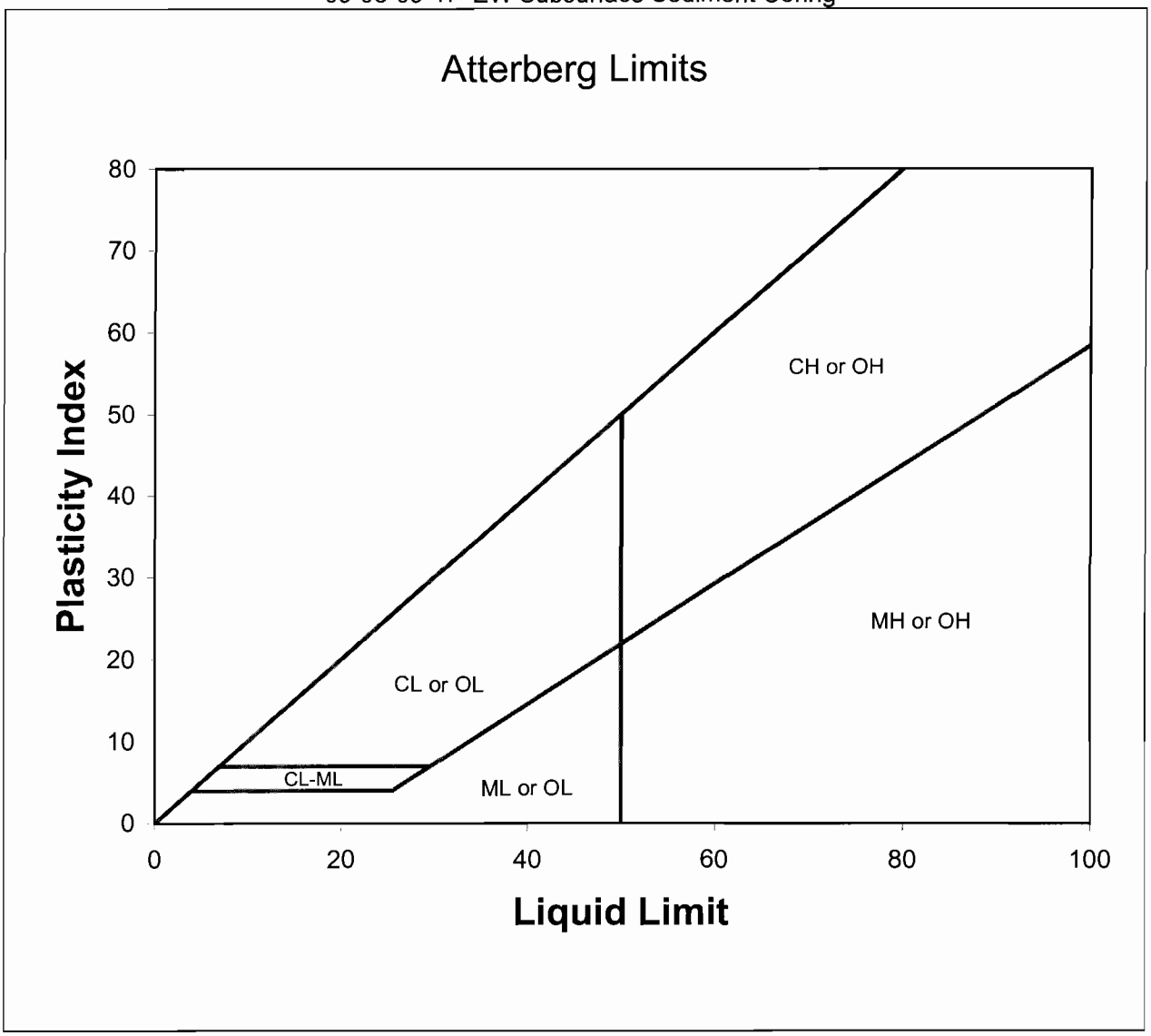
Windward Environmental, LLC
EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC48-2	81.61	52.8	78.7	26.0	OH
EW10-SC48-8.9	31.27	NA	NA	NA	NP
EW10-SC51-2	38.52	NA	NA	NA	NP
EW10-SC51-8.9	29.64	NA	NA	NA	NP

QM75

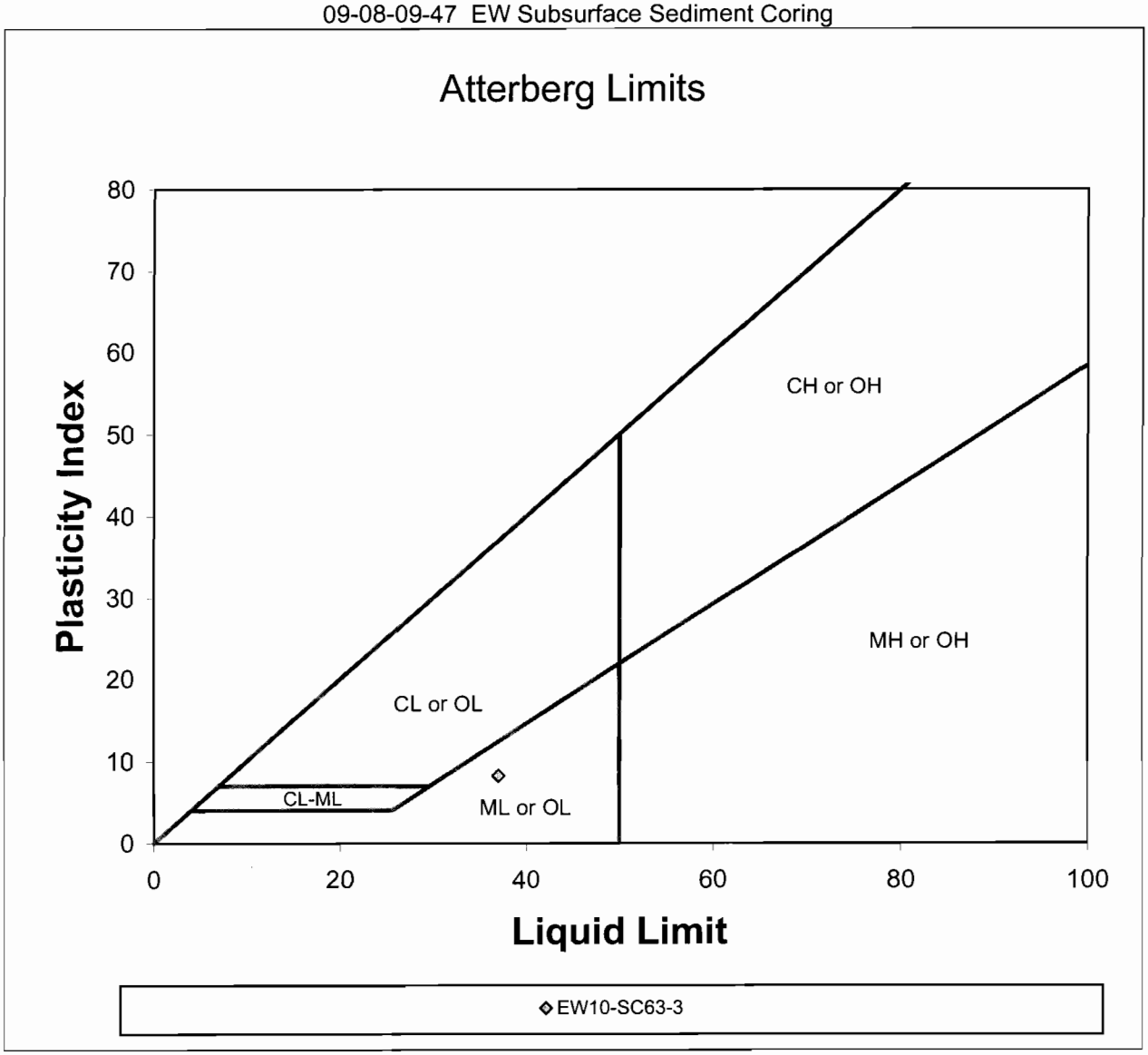
Windward Environmental, LLC
09-08-09-47_EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC56-8.5	31.92	NA	NA	NA	NP

QN43

Windward Environmental, LLC
09-08-09-47 EW Subsurface Sediment Coring



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
EW10-SC63-1.2	35.56	NA	NA	NA	NP
EW10-SC63-3	42.06	8.2	37.0	28.8	ML

QM44

CONVENTIONALS

Windward Environmental, LLC
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC04-2-4	2.5	1.6	20.0	61.8	6.7	1.2	0.7	1.4	1.2	1.0	0.5	0.4	0.9	6.2
	3.9	1.5	19.2	61.8	6.8	1.1	0.7	1.0	1.1	0.9	0.7	0.4	0.9	5.7
	3.1	1.7	19.1	62.7	6.7	1.2	0.7	1.0	0.8	0.9	0.7	0.4	0.9	5.4
EW10-SC03-0-2	28.0	2.7	11.2	21.7	11.6	4.7	0.3	1.9	3.9	3.6	3.1	2.0	5.2	20.1
EW10-SC03-2-4	5.1	2.8	24.6	54.1	10.9	0.9	NA	NA	NA	NA	NA	NA	NA	1.6
EW10-SC04-0-2	31.3	3.8	3.6	7.9	7.8	8.4	4.4	6.4	7.1	5.2	3.9	3.0	7.1	37.1
EW10-SC05-0-2	7.5	8.0	24.1	34.9	9.1	1.5	0.6	1.6	4.6	2.1	1.4	1.4	3.3	15.0
EW10-SC05-2-4	6.3	6.1	10.4	31.9	32.4	5.5	2.9	1.1	0.8	0.6	0.4	0.2	1.4	7.4
EW10-SC06-0-2	0.7	1.9	3.0	6.3	5.0	4.4	4.9	7.8	21.2	13.8	7.3	7.3	16.6	78.9
EW10-SC06-2-4	3.9	3.4	6.1	22.8	17.6	6.8	2.1	4.4	7.5	6.3	5.5	4.6	8.9	39.4
EW10-SC08-0-2	0.0	0.6	1.5	2.6	3.8	4.9	7.4	9.6	18.5	14.6	9.8	8.0	18.7	86.6
EW10-SC08-2-4	0.4	1.2	1.3	3.0	4.9	6.2	8.7	9.2	17.9	12.4	8.9	7.2	18.8	83.0
EW10-SC11-0-2	3.7	0.6	2.8	9.6	7.1	5.4	5.8	7.1	17.5	12.1	7.1	6.2	15.1	70.9
EW10-SC11-2-4	0.0	0.8	1.3	3.4	6.8	6.2	5.5	8.2	14.2	14.7	11.7	8.0	19.2	81.5
EW10-SC35-2-4	0.5	0.1	0.3	1.7	12.8	29.1	26.4	9.3	6.9	3.7	2.4	1.6	5.1	55.5
EW10-SC41-0-0.6	0.1	0.2	0.9	5.2	36.5	27.3	14.5	5.6	3.3	1.9	1.1	0.7	2.7	29.9
EW10-SC41-0.6-2	0.1	0.1	2.8	28.4	21.3	15.5	14.0	6.8	4.1	2.1	1.3	0.9	2.7	31.9
EW10-SC45-0-1	0.5	0.4	2.1	39.1	34.5	13.7	3.6	1.8	1.2	0.8	0.5	0.3	1.4	9.7
EW10-SC45-1-1.7	0.0	0.2	0.5	1.6	9.6	30.5	31.3	10.1	5.7	3.2	2.0	1.4	3.9	57.6

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QL56:00203

Windward Environmental, LLC
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC35-0-2	1.6	0.5	1.4	9.3	15.7	17.0	12.5	10.2	8.8	5.7	4.5	3.6	9.2	54.6
	0.2	0.4	1.4	9.4	15.6	17.5	14.0	8.6	8.4	6.8	4.5	3.5	9.6	55.3
	0.2	0.5	1.4	9.2	15.4	16.9	13.8	9.1	9.6	6.0	4.4	3.6	9.8	56.4

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QL56 M

QL56 : 00204

Windward Environmental, LLC
09-08-09-47
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC18-2-4	0.0	0.3	1.1	8.7	16.5	10.1	7.9	7.8	10.1	10.1	8.0	6.2	13.1	63.2
	0.0	0.2	1.1	8.9	16.5	9.6	7.5	7.8	10.7	10.1	8.5	6.3	12.8	63.7
	0.0	0.3	1.2	8.5	16.9	10.7	6.6	7.4	10.7	9.5	8.9	6.0	13.2	62.4
EW10-SC07B-0.0-2.3	22.7	7.4	11.6	18.4	12.1	2.8	2.8	3.5	4.9	4.5	3.2	2.6	3.6	25.1
EW10-SC07B-2.3-4	6.0	1.0	5.9	35.2	33.5	4.9	2.1	2.6	2.9	1.9	1.4	0.9	1.7	13.5
EW10-SC10-0-2.4	16.9	2.3	4.9	17.0	9.3	3.8	2.9	8.2	9.7	7.6	5.6	4.3	7.4	45.8
EW10-SC10-2.4-4	7.9	2.1	5.0	23.9	28.1	6.9	6.2	4.1	4.4	3.4	2.7	1.8	3.5	26.1
EW10-SC12-0-2	0.2	0.1	0.3	2.3	4.7	4.6	8.2	11.3	15.7	17.4	12.1	8.1	14.9	87.7
EW10-SC12-2-3.1	0.1	0.2	1.1	4.5	7.5	6.6	7.1	10.7	15.1	13.6	10.5	7.6	15.4	80.1
EW10-SC15-0-2.3	0.3	0.5	1.2	7.9	11.0	6.7	9.2	9.2	14.1	11.6	9.7	5.7	12.8	72.4
EW10-SC15-2.3-4	0.2	0.4	0.6	12.3	30.1	14.7	9.6	6.2	7.4	5.1	5.1	3.2	5.2	41.7
EW10-SC18-0-2	0.0	0.3	0.8	4.4	11.3	12.3	14.7	12.1	12.8	9.2	7.4	4.7	10.0	70.9
EW10-SC58-0-1.8	3.2	1.2	1.2	2.4	7.2	11.1	12.7	11.7	11.9	10.5	8.7	6.6	11.6	73.7
EW10-SC58-1.8-4	0.8	0.6	1.1	15.6	33.0	17.8	12.6	5.1	4.7	2.9	2.0	1.5	2.3	31.0
EW10-SC59-0-2	3.7	0.7	2.4	34.9	34.6	9.1	6.2	2.8	1.8	1.1	0.8	0.5	1.5	14.5
EW10-SC59-2-4	0.4	0.1	0.6	4.7	13.8	26.9	24.5	11.1	6.1	3.8	2.6	1.7	3.9	53.6
EW10-SC57-0-2	0.7	0.4	1.0	18.6	23.0	18.8	15.2	8.0	4.8	2.8	2.2	1.7	2.8	37.5
EW10-SC57-2-4	0.2	0.2	1.9	58.5	32.2	3.1	NA	NA	NA	NA	NA	NA	NA	4.0
EW10-SC60-0-0.8	0.5	0.5	0.8	8.4	20.7	20.6	15.5	9.2	7.0	4.4	3.6	2.5	6.1	48.4
EW10-SC60-0.8-3	0.2	0.4	0.9	21.4	37.1	17.1	9.8	4.0	3.0	1.9	1.2	0.9	2.1	22.9
EW10-SC61-0-1	0.9	0.4	0.7	7.9	21.2	20.5	13.8	8.3	7.0	5.2	4.1	2.8	7.0	48.3
EW10-SC61-1-3	0.2	0.5	0.8	8.7	21.8	23.3	16.2	9.1	6.5	3.9	2.9	1.7	4.4	44.8

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QM30 : 00215

Windward Environmental, LLC
09-08-09-47
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC43-1.3-4	0.3	0.2	0.5	6.1	30.3	26.4	13.4	6.1	4.8	3.5	2.8	1.6	4.0	36.3
	0.1	0.2	0.6	6.4	30.1	25.0	12.9	8.0	4.7	3.6	2.6	1.9	3.9	37.6
	0.0	0.1	0.5	6.5	30.7	25.8	12.0	7.1	5.3	3.7	2.5	1.9	3.9	36.4
EW10-SC19-0-2.5	0.3	1.5	2.6	10.5	17.9	10.4	8.8	8.3	11.4	8.7	6.2	4.9	8.6	56.9
EW10-SC19-2.5-4	0.0	0.1	0.4	12.6	38.7	20.4	10.6	7.5	3.8	1.5	1.4	1.0	2.0	27.8
EW10-SC20-0.4-2.4	0.0	0.1	0.5	4.8	15.3	18.5	14.8	12.6	8.9	7.2	5.7	4.1	7.6	60.9
EW10-SC20-2.4-4.4	0.0	0.0	0.1	0.2	3.9	16.6	21.6	20.2	12.4	7.9	5.5	4.1	7.4	79.1
EW10-SC21-0-2	0.9	1.2	1.9	3.5	8.1	8.8	7.3	14.3	15.8	11.7	8.9	6.3	11.2	75.5
EW10-SC21-2-4	0.3	0.6	1.1	5.1	13.0	7.7	6.9	13.5	14.3	12.2	8.8	5.2	11.2	72.1
EW10-SC37-0-2	0.0	0.1	0.3	3.1	20.4	25.1	18.5	9.9	7.3	4.9	3.4	2.4	4.7	51.1
EW10-SC37-2-3.9	0.0	0.0	0.1	0.6	18.5	38.7	22.3	6.8	4.5	2.7	1.8	1.1	2.9	42.1
EW10-SC38-0-0.8	0.0	0.0	0.1	0.5	3.3	13.9	27.5	19.6	13.7	7.7	4.9	3.3	5.4	82.2
EW10-SC38-0.8-2	0.0	0.0	0.1	1.4	14.6	35.4	22.5	10.3	6.4	3.3	2.3	1.2	2.5	48.4
EW10-SC43-0-1.3	1.6	0.9	1.5	7.5	24.7	16.8	11.2	6.3	7.4	6.2	4.9	3.7	7.4	47.0
EW10-SC46-0-2.3	0.3	0.5	0.6	2.9	22.4	23.8	17.0	9.6	8.0	4.9	3.1	2.6	4.3	49.6
EW10-SC46-2.3-4	0.2	0.3	1.4	15.1	35.0	26.3	10.1	3.8	2.4	1.7	1.3	0.6	1.7	21.6
EW10-SC55-0-2	1.1	0.5	1.2	12.9	33.0	22.6	10.5	4.3	3.5	2.7	2.2	1.9	3.5	28.7
EW10-SC55-2-4	0.3	0.4	0.6	5.5	28.7	21.7	15.3	9.2	7.0	4.1	2.7	1.7	2.8	42.7
EW10-SC201-0-2.5	1.7	2.2	2.7	9.0	17.8	12.8	8.6	8.9	9.5	8.1	6.3	4.5	7.8	53.8
EW10-SC201-2.5-4	0.1	0.2	0.5	12.4	37.5	20.6	13.5	5.9	3.0	2.0	1.9	0.3	1.9	28.6
EW10-SC202-0-2	0.2	0.1	0.5	3.5	22.4	28.3	17.1	7.6	6.4	3.9	3.2	2.4	4.3	45.0
SW10-SC202-2-3.9	0.0	0.0	0.2	0.5	16.4	37.2	24.7	8.8	3.7	3.2	1.7	1.2	2.3	45.6

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QL86 : 00203

Windward Environmental, LLC
EW Subsurface Sediment Coring
09-08-09-47

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC26-0-2.7	0.1	0.9	7.2	36.8	37.0	6.6	2.7	2.2	1.7	1.2	1.0	0.8	1.8	11.4
	0.1	0.8	7.0	35.7	36.1	6.5	5.4	2.0	1.4	1.3	1.0	0.9	1.8	13.7
	0.1	0.9	7.4	37.3	37.4	6.7	1.8	2.1	1.5	1.2	1.0	0.8	1.9	10.3
EW10-SC23-0-1.3	1.6	1.7	9.8	45.8	17.6	3.7	2.9	2.8	3.2	2.8	2.3	1.8	4.1	19.9
EW10-SC23-1.3-3.2	2.6	2.5	3.6	14.5	10.4	3.7	2.9	8.0	8.7	10.4	10.3	7.5	14.8	62.7
EW10-SC26-2.7-4	0.0	0.0	0.1	1.0	10.3	25.0	26.1	17.8	7.9	3.6	2.7	1.4	4.0	63.5
EW10-SC27-0-2	1.4	1.2	1.4	5.3	7.2	4.9	4.8	9.8	13.2	13.9	11.1	8.1	17.8	78.6
EW10-SC27-2-4	0.2	0.6	0.7	1.6	5.3	5.8	7.1	10.6	13.9	15.1	13.1	7.8	18.2	85.7
EW10-SC30-0-2	0.5	0.9	1.3	3.1	7.6	11.1	10.0	14.3	13.2	11.8	8.0	5.9	12.2	75.5
EW10-SC30-2-4.3	1.3	0.6	1.0	3.4	12.0	13.2	12.6	9.4	10.7	10.0	7.7	5.4	12.7	68.6
EW10-SC32-0-2	9.9	1.0	0.8	1.4	3.9	5.7	8.1	9.3	15.3	12.9	10.1	6.6	14.9	77.3
EW10-SC32-2-4	0.9	2.4	1.2	2.1	4.1	5.8	12.7	11.8	14.4	13.3	9.5	7.0	14.8	83.5
EW10-SC51-0-2	0.0	0.1	0.3	0.7	10.8	31.2	25.2	10.9	7.6	4.4	2.7	2.0	4.1	56.9
EW10-SC51-2-3.8	0.0	0.1	0.2	0.5	9.6	31.4	27.9	10.2	8.0	4.1	2.6	1.6	3.8	58.1
EW10-SC63-0-2	0.0	0.1	0.6	18.8	31.0	14.6	12.2	7.8	5.4	2.8	1.8	1.4	3.4	34.8
EW10-SC63-2-4	0.1	0.3	0.3	0.4	4.9	19.3	25.7	20.5	11.6	5.9	3.3	2.4	5.3	74.7
EW10-SC203-0-2	0.2	1.1	1.5	2.9	7.5	11.4	11.6	13.0	13.3	11.3	8.1	5.4	12.7	75.4
EW10-SC203-2-4.3	0.2	0.6	0.8	3.4	12.7	13.3	12.0	8.7	11.4	10.7	7.6	5.7	12.8	69.0
EW10-SC204-0-2	0.5	1.6	1.0	1.7	4.7	6.7	8.3	11.9	16.6	13.9	10.6	7.1	15.5	83.9
EW10-SC204-2	3.6	3.9	1.6	2.5	4.7	6.6	7.1	13.6	14.0	11.6	10.4	6.8	13.5	77.1
EW10-SC29-0-2	0.8	2.6	1.4	5.8	9.8	6.5	6.7	8.3	13.8	11.4	10.2	7.9	14.7	73.1
EW10-SC29-2-3.9	8.0	3.1	1.8	3.6	7.7	5.6	6.7	8.7	12.5	11.5	9.3	7.1	14.2	70.1

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QM57 . 00217

Windward Environmental, LLC
EW Subsurface Sediment Coring

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SC50-1.6-4	0.4	0.5	1.2	17.3	24.2	12.1	11.2	10.2	7.6	4.6	3.5	2.3	5.0	44.4
	0.2	0.4	1.1	17.3	24.3	11.4	9.9	11.6	7.9	4.8	3.4	2.2	5.5	45.3
	0.4	0.5	1.0	16.7	24.1	11.7	12.3	10.4	7.1	4.9	3.3	2.5	5.1	45.7
EW10-SC33-0-2	2.6	1.3	3.4	10.1	8.3	7.8	8.1	9.1	11.5	10.6	8.6	5.4	13.4	66.6
EW10-SC33-2-3.5	0.0	0.6	1.1	4.2	6.5	8.1	8.9	9.0	12.3	12.9	10.8	7.0	18.5	79.5
EW10-SC13-0-1.6	0.5	1.0	1.7	2.3	2.8	4.9	6.2	12.1	15.7	15.9	11.7	8.0	17.3	86.8
EW10-SC13-1.6-4	60.1	8.2	10.4	15.1	4.2	0.4	NA	NA	NA	NA	NA	NA	NA	1.7
EW10-SC48-0-2	0.2	0.2	0.4	3.2	12.1	13.0	12.6	11.3	11.0	9.1	8.4	6.0	12.5	70.9
EW10-SC48-2-4.7	0.4	0.3	0.7	8.4	13.5	7.1	5.2	10.1	10.4	11.7	10.2	7.2	14.8	69.6
EW10-SC50-0-1.6	3.9	1.0	1.7	12.0	14.8	10.6	10.1	9.5	10.2	7.4	5.4	4.3	9.1	56.1
EW10-SC52-0-2	2.5	1.0	0.8	4.4	9.2	10.2	9.8	11.0	12.2	10.4	9.3	6.1	12.9	71.8
EW10-SC52-2-4	0.8	0.9	1.8	17.5	28.2	23.7	11.1	4.6	2.9	2.3	1.8	1.3	3.0	27.0
EW10-SC53-0-2	0.1	0.1	0.4	3.6	19.1	20.5	15.2	8.4	7.8	6.7	5.3	3.9	9.0	56.2
EW10-SC53-2-4	0.3	0.2	0.3	1.7	15.5	23.4	20.7	10.4	7.6	6.0	4.1	2.8	7.0	58.6
EW10-SC54-0-2	14.0	7.0	5.7	9.7	12.2	11.7	10.6	7.7	5.2	4.3	3.4	2.3	6.3	39.8
EW10-SC54-2-4	1.4	1.1	0.7	1.3	6.3	16.2	14.4	10.5	8.9	10.8	9.8	7.5	11.2	73.0

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QM80 . 001 71

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC03-0-2
ARI ID: 10-4777 QL56A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	65.10
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	2.95

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC03-2-4
ARI ID: 10-4778 QL56B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	88.20
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.326

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC04-0-2
ARI ID: 10-4779 QL56C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	61.90
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	2.09

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC04-2-4
ARI ID: 10-4780 QL56D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	75.80
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	1.83

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QL56D Client ID: EW10-SC04-2-4					
Total Solids	03/01/10	Percent	75.80	78.70 78.10	2.0%
Total Organic Carbon	03/08/10	Percent	1.83	1.62 1.88	7.8%

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC05-0-2
ARI ID: 10-4781 QL56E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	73.10
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	1.35

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC05-2-4
ARI ID: 10-4782 QL56F

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	77.60
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.255

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/22/10
Date Received: 02/25/10

Client ID: EW10-SC06-0-2
ARI ID: 10-4783 QL56G

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	48.70
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	3.69

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/22/10
Date Received: 02/25/10

Client ID: EW10-SC06-2-4
ARI ID: 10-4784 QL56H

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	48.20
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	7.40

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC07B-0.0-2.3
ARI ID: 10-5171 QM30A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	75.20
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	1.63

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC07B-2.3-4
ARI ID: 10-5172 QM30B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	76.90
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.656

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/22/10
Date Received: 02/25/10

Client ID: EW10-SC08-0-2
ARI ID: 10-4785 QL56I

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	50.10
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	1.45

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/22/10
Date Received: 02/25/10

Client ID: EW10-SC08-2-4
ARI ID: 10-4786 QL56J

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	47.60
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	2.42

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC10-0-2.4
ARI ID: 10-5173 QM30C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	60.90
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	2.36

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC10-2.4-4
ARI ID: 10-5174 QM30D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	70.20
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	2.46

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC11-0-2
ARI ID: 10-4787 QL56K

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	54.50
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	1.91

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/23/10
Date Received: 02/25/10

Client ID: EW10-SC11-2-4
ARI ID: 10-4788 QL56L

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	49.90
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	2.67

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC12-0-2
ARI ID: 10-5175 QM30E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	51.00
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	2.87

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC12-2-3.1
ARI ID: 10-5176 QM30F

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	57.30
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	3.89

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Client ID: EW10-SC13-0-1.6
ARI ID: 10-5593 QM80C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	51.10
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	2.02

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Client ID: EW10-SC13-1.6-4
ARI ID: 10-5594 QM80D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	90.30
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	0.093

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC15-0-2.3
ARI ID: 10-5177 QM30G

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	58.40
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	2.48

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC15-2.3-4
ARI ID: 10-5178 QM30H

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	73.40
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	1.17

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC18-0-2
ARI ID: 10-5179 QM30I

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	59.80
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	2.04

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QM30I Client ID: EW10-SC18-0-2					
Total Solids	03/03/10	Percent	59.80	59.90 60.00	0.2%
Total Organic Carbon	03/04/10	Percent	2.04	1.91 2.17	6.4%

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/01/10
Date Received: 03/02/10

Client ID: EW10-SC18-2-4
ARI ID: 10-5180 QM30J

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	62.40
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	2.07

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC19-0-2.5
ARI ID: 10-4948 QL86A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	61.00
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	2.16

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC19-2.5-4
ARI ID: 10-4949 QL86B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	76.50
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.474

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC20-0.4-2.4
ARI ID: 10-4950 QL86C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	74.90
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.688

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QL86C Client ID: EW10-SC20-0.4-2.4					
Total Solids	03/01/10	Percent	74.90	75.10 74.90	0.2%
Total Organic Carbon	03/02/10	Percent	0.688	0.740 0.675	4.9%

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC20-2.4-4.4
ARI ID: 10-4951 QL86D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	73.30
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.431

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC21-0-2
ARI ID: 10-4952 QL86E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	54.20
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	2.05

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC21-2-4
ARI ID: 10-4953 QL86F

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	57.70
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	2.37

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC23-0-1.3
ARI ID: 10-5375 QM57A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	73.70
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	2.40

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC23-1.3-3.2
ARI ID: 10-5376 QM57B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	52.20
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	5.55

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC26-0-2.7
ARI ID: 10-5377 QM57C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	78.00
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.653

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QM57C Client ID: EW10-SC26-0-2.7					
Total Solids	03/05/10	Percent	78.00	78.50 78.90	0.6%
Total Organic Carbon	03/15/10	Percent	0.653	0.700 0.533	13.7%
ARI ID: QM57D Client ID: EW10-SC26-2.7-4					
Total Solids	03/05/10	Percent	75.40	74.80 75.20	0.4%
Total Organic Carbon	03/15/10	Percent	0.387	0.372 0.375	2.1%

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC26-2.7-4
ARI ID: 10-5378 QM57D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	75.40
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.387

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC27-0-2
ARI ID: 10-5379 QM57E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	45.20
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	4.24

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC27-2-4
ARI ID: 10-5380 QM57F

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	49.10
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	3.84

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC29-0-2
ARI ID: 10-5435 QM57W

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	51.30
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	5.38

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC29-2-3.9
ARI ID: 10-5436 QM57X

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	53.30
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	4.79

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC30-0-2
ARI ID: 10-5381 QM57G

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	52.00
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	1.66

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC30-2-4.3
ARI ID: 10-5382 QM57H

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	57.20
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	1.79

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC32-0-2
ARI ID: 10-5383 QM57I

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	50.30
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	2.93

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC32-2-4
ARI ID: 10-5384 QM57J

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	49.10
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	5.02

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Client ID: EW10-SC33-0-2
ARI ID: 10-5591 QM80A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	57.90
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	2.97

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/05/10

Client ID: EW10-SC33-2-3.5
ARI ID: 10-5592 QM80B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	55.00
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	2.22

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/24/10
Date Received: 02/25/10

Client ID: EW10-SC35-0-2
ARI ID: 10-4789 QL56M

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	62.90
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	1.34

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/24/10
Date Received: 02/25/10

Client ID: EW10-SC35-2-4
ARI ID: 10-4790 QL56N

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	75.60
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	0.302

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC37-0-2
ARI ID: 10-4954 QL86G

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	71.10
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.485

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC37-2-3.9
ARI ID: 10-4955 QL86H

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	75.30
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.210

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC38-0-0.8
ARI ID: 10-4956 QL86I

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	73.80
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.847

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC38-0.8-2
ARI ID: 10-4957 QL86J

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	74.20
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.382

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/25/10
Date Received: 02/25/10

Client ID: EW10-SC41-0-0.6
ARI ID: 10-4791 QL56O

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	72.90
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	0.323

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/25/10
Date Received: 02/25/10

Client ID: EW10-SC41-0.6-2
ARI ID: 10-4792 QL56P

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	75.90
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	0.308

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC43-0-1.3
ARI ID: 10-4958 QL86K

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	66.10
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	1.85

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC43-1.3-4
ARI ID: 10-4959 QL86L

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	70.80
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	1.33

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/25/10
Date Received: 02/25/10

Client ID: EW10-SC45-0-1
ARI ID: 10-4793 QL56Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	79.80
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	0.532

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL56-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/10/10

Project: NA
Event: EW Subsurface Sediment Corin
Date Sampled: 02/25/10
Date Received: 02/25/10

Client ID: EW10-SC45-1-1.7
ARI ID: 10-4794 QL56R

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	71.40
Total Organic Carbon	03/08/10 030810#1	Plumb,1981	Percent	0.020	0.355

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC46-0-2.3
ARI ID: 10-4960 QL86M

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	71.50
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.754

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC46-2.3-4
ARI ID: 10-4961 QL86N

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	72.60
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.647

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC48-0-2
ARI ID: 10-5595 QM80E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	59.30
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	1.60

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC48-2-4.7
ARI ID: 10-5596 QM80F

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	56.50
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	2.82

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC50-0-1.6
ARI ID: 10-5597 QM80G

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	62.20
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	1.81

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QM80G Client ID: EW10-SC50-0-1.6					
Total Solids	03/08/10	Percent	62.20	61.60 61.00	1.0%
Total Organic Carbon	03/10/10	Percent	1.81	1.79 1.53	9.1%

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC50-1.6-4
ARI ID: 10-5598 QM80H

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	70.40
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	1.34

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC51-0-2
ARI ID: 10-5423 QM57K

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	73.70
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.369

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC51-2-3.8
ARI ID: 10-5424 QM57L

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	72.90
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.421

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC52-0-2
ARI ID: 10-5599 QM80I

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	59.50
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	2.13

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC52-2-4
ARI ID: 10-5600 QM80J

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	67.70
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	0.774

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC53-0-2
ARI ID: 10-5601 QM80K

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	66.30
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	1.30

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC53-2-4
ARI ID: 10-5602 QM80L

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	66.60
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	0.826

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC54-0-2
ARI ID: 10-5603 QM80M

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	62.20
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	1.87

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM80-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/05/10
Date Received: 03/05/10

Client ID: EW10-SC54-2-4
ARI ID: 10-5604 QM80N

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/08/10 030810#1	EPA 160.3	Percent	0.01	50.80
Total Organic Carbon	03/10/10 031010#1	Plumb,1981	Percent	0.020	6.97

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC55-0-2
ARI ID: 10-4962 QL86O

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	73.60
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.892

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC55-2-4
ARI ID: 10-4963 QL86P

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	73.70
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.651

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC57-0-2
ARI ID: 10-5185 QM30O

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	75.60
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.649

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC57-2-4
ARI ID: 10-5186 QM30P

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	81.30
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.260

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC58-0-1.8
ARI ID: 10-5181 QM30K

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	48.90
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	1.30

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC58-1.8-4
ARI ID: 10-5182 QM30L

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	71.90
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	1.27

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC59-0-2
ARI ID: 10-5183 QM30M

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	74.30
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.948

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC59-2-4
ARI ID: 10-5184 QM30N

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	74.50
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.472

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC60-0-0.8
ARI ID: 10-5187 QM30Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	64.00
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	1.74

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC60-0.8-3
ARI ID: 10-5188 QM30R

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	71.50
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.879

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC61-0-1
ARI ID: 10-5189 QM30S

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	69.50
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	0.924

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM30-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/08/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 03/02/10
Date Received: 03/02/10

Client ID: EW10-SC61-1-3
ARI ID: 10-5190 QM30T

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/03/10 030310#1	EPA 160.3	Percent	0.01	73.30
Total Organic Carbon	03/04/10 030410#1	Plumb,1981	Percent	0.020	1.20

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/02/10
Date Received: 03/04/10

Client ID: EW10-SC63-0-2
ARI ID: 10-5425 QM57M

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	72.20
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.560

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/02/10
Date Received: 03/04/10

Client ID: EW10-SC63-2-4
ARI ID: 10-5426 QM57N

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	70.70
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.644

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC100-0-1.1
ARI ID: 10-5429 QM57Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	58.10
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	1.67

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC100-1.1-3
ARI ID: 10-5430 QM57R

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	75.30
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.289

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC101-0-2.3
ARI ID: 10-5427 QM57O

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	78.40
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.914

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/04/10
Date Received: 03/04/10

Client ID: EW10-SC101-2.3-4
ARI ID: 10-5428 QM57P

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	73.30
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	0.403

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC201-0-2.5
ARI ID: 10-4964 QL86Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	61.70
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	2.31

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/25/10
Date Received: 02/26/10

Client ID: EW10-SC201-2.5-4
ARI ID: 10-4965 QL86R

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	76.70
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.524

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC202-0-2
ARI ID: 10-4966 QL86S

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	72.40
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.783

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QL86-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/05/10

Project: EW Subsurface Sediment Corin
Event: 09-08-09-47
Date Sampled: 02/26/10
Date Received: 02/26/10

Client ID: EW10-SC202-2-3.9
ARI ID: 10-4967 QL86T

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/01/10 030110#1	EPA 160.3	Percent	0.01	74.90
Total Organic Carbon	03/02/10 030210#1	Plumb,1981	Percent	0.020	0.246

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC203-0-2
ARI ID: 10-5431 QM57S

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	51.30
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	1.87

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC203-2-4.3
ARI ID: 10-5432 QM57T

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	56.60
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	2.16

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC204-0-2
ARI ID: 10-5433 QM57U

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	49.40
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	3.40

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QM57-Windward Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 03/16/10

Project: EW Subsurface Sediment Corin
Event: NA
Date Sampled: 03/03/10
Date Received: 03/04/10

Client ID: EW10-SC204-2-4
ARI ID: 10-5434 QM57V

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/05/10 030510#1	EPA 160.3	Percent	0.01	49.10
Total Organic Carbon	03/15/10 031510#1	Plumb,1981	Percent	0.020	5.75

RL Analytical reporting limit
U Undetected at reported detection limit

BORES – METALS

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB01-0-2
SAMPLE

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Percent Total Solids: 50.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/07/10	7440-36-0	Antimony	20	20	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.4	**18.8**	
3050B	03/25/10	6010B	04/07/10	**7440-43-9**	**Cadmium**	0.9	**45.2**	
3050B	03/25/10	6010B	04/07/10	**7440-47-3**	**Chromium**	2	**149**	
3050B	03/25/10	6010B	04/07/10	**7440-48-4**	**Cobalt**	1	**13**	
3050B	03/25/10	6010B	04/07/10	**7440-50-8**	**Copper**	0.9	**315**	
3050B	03/25/10	6010B	04/07/10	**7439-92-1**	**Lead**	9	**580**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.04	**2.48**	
3050B	03/25/10	6010B	04/07/10	**7439-98-7**	**Molybdenum**	2	**11**	
3050B	03/25/10	6010B	04/07/10	**7440-02-0**	**Nickel**	5	**56**	
3050B	03/25/10	200.8	04/14/10	**7782-49-2**	**Selenium**	1	**2**	
3050B	03/25/10	6010B	04/07/10	**7440-22-4**	**Silver**	1	**7**	
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/25/10	6010B	04/07/10	**7440-62-2**	**Vanadium**	1	**72**	
3050B	03/25/10	6010B	04/07/10	**7440-66-6**	**Zinc**	5	**6,850**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB01-3.5-5.2
SAMPLE

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Percent Total Solids: 66.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/07/10	7440-36-0	Antimony	20	20	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.3	**11.5**	
3050B	03/25/10	6010B	04/07/10	**7440-43-9**	**Cadmium**	0.7	**3.4**	
3050B	03/25/10	6010B	04/07/10	**7440-47-3**	**Chromium**	2	**30**	
3050B	03/25/10	6010B	04/07/10	**7440-48-4**	**Cobalt**	1	**11**	
3050B	03/25/10	6010B	04/07/10	**7440-50-8**	**Copper**	0.7	**143**	
3050B	03/25/10	6010B	04/07/10	**7439-92-1**	**Lead**	7	**381**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.03	**1.07**	
3050B	03/25/10	6010B	04/07/10	**7439-98-7**	**Molybdenum**	2	**4**	
3050B	03/25/10	6010B	04/07/10	**7440-02-0**	**Nickel**	4	**32**	
3050B	03/25/10	200.8	04/14/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/25/10	6010B	04/07/10	7440-22-4	Silver	1	1	U
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/25/10	6010B	04/07/10	**7440-62-2**	**Vanadium**	1	**58**	
3050B	03/25/10	6010B	04/07/10	**7440-66-6**	**Zinc**	4	**597**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB01-12.5-14.5
SAMPLE

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Percent Total Solids: 74.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/06/10	7440-36-0	Antimony	6	6	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.3	**4.4**	
3050B	03/25/10	6010B	04/06/10	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	03/25/10	6010B	04/06/10	**7440-47-3**	**Chromium**	0.6	**24.5**	
3050B	03/25/10	6010B	04/06/10	**7440-48-4**	**Cobalt**	0.4	**8.2**	
3050B	03/25/10	6010B	04/06/10	**7440-50-8**	**Copper**	0.3	**32.0**	
3050B	03/25/10	6010B	04/06/10	**7439-92-1**	**Lead**	3	**19**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.03	**0.23**	
3050B	03/25/10	6010B	04/06/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/25/10	6010B	04/06/10	**7440-02-0**	**Nickel**	1	**19**	
3050B	03/25/10	200.8	04/14/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/25/10	6010B	04/06/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/25/10	6010B	04/06/10	**7440-62-2**	**Vanadium**	0.4	**52.7**	
3050B	03/25/10	6010B	04/06/10	**7440-66-6**	**Zinc**	1	**59**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB01-16-18
SAMPLE

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Percent Total Solids: 75.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/06/10	7440-36-0	Antimony	6	6	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.2	**3.4**	
3050B	03/25/10	6010B	04/06/10	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	03/25/10	6010B	04/06/10	**7440-47-3**	**Chromium**	0.6	**18.7**	
3050B	03/25/10	6010B	04/06/10	**7440-48-4**	**Cobalt**	0.4	**6.3**	
3050B	03/25/10	6010B	04/06/10	**7440-50-8**	**Copper**	0.3	**21.1**	
3050B	03/25/10	6010B	04/06/10	**7439-92-1**	**Lead**	3	**7**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.02	**0.07**	
3050B	03/25/10	6010B	04/06/10	**7439-98-7**	**Molybdenum**	0.6	**0.7**	
3050B	03/25/10	6010B	04/06/10	**7440-02-0**	**Nickel**	1	**15**	
3050B	03/25/10	200.8	04/14/10	7782-49-2	Selenium	0.6	0.6	U
3050B	03/25/10	6010B	04/06/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.2	0.2	U
3050B	03/25/10	6010B	04/06/10	**7440-62-2**	**Vanadium**	0.4	**47.1**	
3050B	03/25/10	6010B	04/06/10	**7440-66-6**	**Zinc**	1	**38**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB02-0-2
SAMPLE

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Percent Total Solids: 53.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/06/10	7440-36-0	Antimony	9	9	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.4	**13.6**	
3050B	03/25/10	6010B	04/06/10	**7440-43-9**	**Cadmium**	0.3	**7.1**	
3050B	03/25/10	6010B	04/06/10	**7440-47-3**	**Chromium**	0.9	**83.1**	
3050B	03/25/10	6010B	04/06/10	**7440-48-4**	**Cobalt**	0.5	**9.8**	
3050B	03/25/10	6010B	04/06/10	**7440-50-8**	**Copper**	0.3	**151**	
3050B	03/25/10	6010B	04/06/10	**7439-92-1**	**Lead**	3	**293**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.03	**1.20**	
3050B	03/25/10	6010B	04/06/10	**7439-98-7**	**Molybdenum**	0.9	**6.6**	
3050B	03/25/10	6010B	04/06/10	**7440-02-0**	**Nickel**	2	**35**	
3050B	03/25/10	200.8	04/14/10	7782-49-2	Selenium	0.9	0.9	U
3050B	03/25/10	6010B	04/06/10	**7440-22-4**	**Silver**	0.5	**4.4**	
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.4	0.4	U
3050B	03/25/10	6010B	04/06/10	**7440-62-2**	**Vanadium**	0.5	**68.5**	
3050B	03/25/10	6010B	04/06/10	**7440-66-6**	**Zinc**	2	**848**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB02-4-6
SAMPLE

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Percent Total Solids: 61.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/06/10	7440-36-0	Antimony	8	8	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.3	**7.8**	
3050B	03/25/10	6010B	04/06/10	**7440-43-9**	**Cadmium**	0.3	**1.3**	
3050B	03/25/10	6010B	04/06/10	**7440-47-3**	**Chromium**	0.8	**45.9**	
3050B	03/25/10	6010B	04/06/10	**7440-48-4**	**Cobalt**	0.5	**11.9**	
3050B	03/25/10	6010B	04/06/10	**7440-50-8**	**Copper**	0.3	**62.4**	
3050B	03/25/10	6010B	04/06/10	**7439-92-1**	**Lead**	3	**1,450**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.03	**1.06**	
3050B	03/25/10	6010B	04/06/10	**7439-98-7**	**Molybdenum**	0.8	**2.3**	
3050B	03/25/10	6010B	04/06/10	**7440-02-0**	**Nickel**	2	**45**	
3050B	03/25/10	200.8	04/14/10	7782-49-2	Selenium	0.8	0.8	U
3050B	03/25/10	6010B	04/06/10	7440-22-4	Silver	0.5	0.5	U
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/25/10	6010B	04/06/10	**7440-62-2**	**Vanadium**	0.5	**64.2**	
3050B	03/25/10	6010B	04/06/10	**7440-66-6**	**Zinc**	2	**133**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB02-12-14
SAMPLE

Lab Sample ID: QP28B
LIMS ID: 10-7455
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Percent Total Solids: 67.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/25/10	6010B	04/06/10	7440-36-0	Antimony	7	7	U
3050B	03/25/10	200.8	04/14/10	**7440-38-2**	**Arsenic**	0.3	**5.6**	
3050B	03/25/10	6010B	04/06/10	**7440-43-9**	**Cadmium**	0.3	**0.5**	
3050B	03/25/10	6010B	04/06/10	**7440-47-3**	**Chromium**	0.7	**24.7**	
3050B	03/25/10	6010B	04/06/10	**7440-48-4**	**Cobalt**	0.4	**7.6**	
3050B	03/25/10	6010B	04/06/10	**7440-50-8**	**Copper**	0.3	**31.3**	
3050B	03/25/10	6010B	04/06/10	**7439-92-1**	**Lead**	3	**17**	
CLP	03/25/10	7471A	03/25/10	**7439-97-6**	**Mercury**	0.03	**0.17**	
3050B	03/25/10	6010B	04/06/10	**7439-98-7**	**Molybdenum**	0.7	**1.0**	
3050B	03/25/10	6010B	04/06/10	**7440-02-0**	**Nickel**	1	**21**	
3050B	03/25/10	200.8	04/14/10	7782-49-2	Selenium	0.7	0.7	U
3050B	03/25/10	6010B	04/06/10	7440-22-4	Silver	0.4	0.4	U
3050B	03/25/10	200.8	04/14/10	7440-28-0	Thallium	0.3	0.3	U
3050B	03/25/10	6010B	04/06/10	**7440-62-2**	**Vanadium**	0.4	**50.5**	
3050B	03/25/10	6010B	04/06/10	**7440-66-6**	**Zinc**	1	**58**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW10-SB02-12-14
DUPLICATE

Lab Sample ID: QP28B
LIMS ID: 10-7455
Matrix: Sediment
Data Release Authorized:
Reported: 04/15/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	7 U	7 U	0.0%	+/- 7	L
Arsenic	200.8	5.6	5.5	1.8%	+/- 20%	
Cadmium	6010B	0.5	0.5	0.0%	+/- 0.3	L
Chromium	6010B	24.7	24.8	0.4%	+/- 20%	
Cobalt	6010B	7.6	7.6	0.0%	+/- 20%	
Copper	6010B	31.3	30.5	2.6%	+/- 20%	
Lead	6010B	17	15	12.5%	+/- 20%	
Mercury	7471A	0.17	0.19	11.1%	+/- 20%	
Molybdenum	6010B	1.0	0.9	10.5%	+/- 0.7	L
Nickel	6010B	21	21	0.0%	+/- 20%	
Selenium	200.8	0.7 U	0.7 U	0.0%	+/- 0.7	L
Silver	6010B	0.4 U	0.4 U	0.0%	+/- 0.4	L
Thallium	200.8	0.3 U	0.3 U	0.0%	+/- 0.3	L
Vanadium	6010B	50.5	51.0	1.0%	+/- 20%	
Zinc	6010B	58	52	10.9%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

BORES – SVOCs

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-0-2
SAMPLE

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 23:10
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 50.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	88	< 88 U
111-44-4	Bis-(2-Chloroethyl) Ether	88	< 88 U
95-57-8	2-Chlorophenol	88	< 88 U
541-73-1	1,3-Dichlorobenzene	88	< 88 U
106-46-7	1,4-Dichlorobenzene	88	< 88 U
100-51-6	Benzyl Alcohol	88	< 88 U
95-50-1	1,2-Dichlorobenzene	88	< 88 U
95-48-7	2-Methylphenol	88	< 88 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	88	< 88 U
106-44-5	4-Methylphenol	88	< 88 U
621-64-7	N-Nitroso-Di-N-Propylamine	440	< 440 U
67-72-1	Hexachloroethane	88	< 88 U
98-95-3	Nitrobenzene	88	< 88 U
78-59-1	Isophorone	88	< 88 U
88-75-5	2-Nitrophenol	440	< 440 U
105-67-9	2,4-Dimethylphenol	88	< 88 U
65-85-0	Benzoic Acid	880	< 880 U
111-91-1	bis(2-Chloroethoxy) Methane	88	< 88 U
120-83-2	2,4-Dichlorophenol	440	< 440 U
120-82-1	1,2,4-Trichlorobenzene	88	< 88 U
91-20-3	**Naphthalene**	**88**	**780**
106-47-8	4-Chloroaniline	440	< 440 U
87-68-3	Hexachlorobutadiene	88	< 88 U
59-50-7	4-Chloro-3-methylphenol	440	< 440 U
91-57-6	**2-Methylnaphthalene**	**88**	**200**
77-47-4	Hexachlorocyclopentadiene	440	< 440 U
88-06-2	2,4,6-Trichlorophenol	440	< 440 U
95-95-4	2,4,5-Trichlorophenol	440	< 440 U
91-58-7	2-Chloronaphthalene	88	< 88 U
88-74-4	2-Nitroaniline	440	< 440 U
131-11-3	Dimethylphthalate	88	< 88 U
208-96-8	Acenaphthylene	88	< 88 U
99-09-2	3-Nitroaniline	440	< 440 U
83-32-9	**Acenaphthene**	**88**	**9,600 ES**
51-28-5	2,4-Dinitrophenol	880	< 880 U
100-02-7	4-Nitrophenol	440	< 440 U
132-64-9	**Dibenzofuran**	**88**	**2,400**
606-20-2	2,6-Dinitrotoluene	440	< 440 U
121-14-2	2,4-Dinitrotoluene	440	< 440 U
84-66-2	Diethylphthalate	88	< 88 U
7005-72-3	4-Chlorophenyl-phenylether	88	< 88 U
86-73-7	**Fluorene**	**88**	**6,100**
100-01-6	4-Nitroaniline	440	< 440 U
534-52-1	4,6-Dinitro-2-Methylphenol	880	< 880 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-0-2
SAMPLE

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Date Analyzed: 03/31/10 23:10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	88	< 88 U
101-55-3	4-Bromophenyl-phenylether	88	< 88 U
118-74-1	Hexachlorobenzene	88	< 88 U
87-86-5	Pentachlorophenol	440	< 440 U
85-01-8	**Phenanthrene**	**88**	**16,000 ES**
86-74-8	**Carbazole**	**88**	**2,500**
120-12-7	**Anthracene**	**88**	**8,300 E**
84-74-2	Di-n-Butylphthalate	88	< 88 U
206-44-0	**Fluoranthene**	**88**	**26,000 ESQ**
129-00-0	**Pyrene**	**88**	**22,000 ES**
85-68-7	Butylbenzylphthalate	88	< 88 U
91-94-1	3,3'-Dichlorobenzidine	440	< 440 U
56-55-3	**Benzo(a)anthracene**	**88**	**16,000 ES**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**88**	**3,200**
218-01-9	**Chrysene**	**88**	**11,000 ES**
117-84-0	Di-n-Octyl phthalate	88	< 88 U
205-99-2	**Benzo(b)fluoranthene**	**88**	**7,000**
207-08-9	**Benzo(k)fluoranthene**	**88**	**7,000**
50-32-8	**Benzo(a)pyrene**	**88**	**10,000 ES**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**88**	**2,000**
53-70-3	**Dibenz(a,h)anthracene**	**88**	**1,200**
191-24-2	**Benzo(g,h,i)perylene**	**88**	**2,000**
62-53-3	Aniline	88	< 88 U
90-12-0	**1-Methylnaphthalene**	**88**	**2,600**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.8%	2-Fluorobiphenyl	57.5%
d14-p-Terphenyl	83.0%	d4-1,2-Dichlorobenzene	56.3%
d5-Phenol	55.8%	2-Fluorophenol	52.3%
2,4,6-Tribromophenol	74.2%	d4-2-Chlorophenol	58.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-0-2
DILUTION

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 15:36
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 30.0
Percent Moisture: 50.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	880	< 880 U
111-44-4	Bis-(2-Chloroethyl) Ether	880	< 880 U
95-57-8	2-Chlorophenol	880	< 880 U
541-73-1	1,3-Dichlorobenzene	880	< 880 U
106-46-7	1,4-Dichlorobenzene	880	< 880 U
100-51-6	Benzyl Alcohol	880	< 880 U
95-50-1	1,2-Dichlorobenzene	880	< 880 U
95-48-7	2-Methylphenol	880	< 880 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	880	< 880 U
106-44-5	4-Methylphenol	880	< 880 U
621-64-7	N-Nitroso-Di-N-Propylamine	4,400	< 4,400 U
67-72-1	Hexachloroethane	880	< 880 U
98-95-3	Nitrobenzene	880	< 880 U
78-59-1	Isophorone	880	< 880 U
88-75-5	2-Nitrophenol	4,400	< 4,400 U
105-67-9	2,4-Dimethylphenol	880	< 880 U
65-85-0	Benzoic Acid	8,800	< 8,800 U
111-91-1	bis(2-Chloroethoxy) Methane	880	< 880 U
120-83-2	2,4-Dichlorophenol	4,400	< 4,400 U
120-82-1	1,2,4-Trichlorobenzene	880	< 880 U
91-20-3	**Naphthalene**	**880**	**900**
106-47-8	4-Chloroaniline	4,400	< 4,400 U
87-68-3	Hexachlorobutadiene	880	< 880 U
59-50-7	4-Chloro-3-methylphenol	4,400	< 4,400 U
91-57-6	2-Methylnaphthalene	880	< 880 U
77-47-4	Hexachlorocyclopentadiene	4,400	< 4,400 U
88-06-2	2,4,6-Trichlorophenol	4,400	< 4,400 U
95-95-4	2,4,5-Trichlorophenol	4,400	< 4,400 U
91-58-7	2-Chloronaphthalene	880	< 880 U
88-74-4	2-Nitroaniline	4,400	< 4,400 U
131-11-3	Dimethylphthalate	880	< 880 U
208-96-8	Acenaphthylene	880	< 880 U
99-09-2	3-Nitroaniline	4,400	< 4,400 U
83-32-9	**Acenaphthene**	**880**	**11,000**
51-28-5	2,4-Dinitrophenol	8,800	< 8,800 U
100-02-7	4-Nitrophenol	4,400	< 4,400 U
132-64-9	**Dibenzofuran**	**880**	**2,800**
606-20-2	2,6-Dinitrotoluene	4,400	< 4,400 U
121-14-2	2,4-Dinitrotoluene	4,400	< 4,400 U
84-66-2	Diethylphthalate	880	< 880 U
7005-72-3	4-Chlorophenyl-phenylether	880	< 880 U
86-73-7	**Fluorene**	**880**	**6,600**
100-01-6	4-Nitroaniline	4,400	< 4,400 U
534-52-1	4,6-Dinitro-2-Methylphenol	8,800	< 8,800 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-0-2
DILUTION

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Date Analyzed: 04/01/10 15:36

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	880	< 880 U
101-55-3	4-Bromophenyl-phenylether	880	< 880 U
118-74-1	Hexachlorobenzene	880	< 880 U
87-86-5	Pentachlorophenol	4,400	< 4,400 U
85-01-8	**Phenanthrene**	**880**	**28,000**
86-74-8	**Carbazole**	**880**	**2,800**
120-12-7	**Anthracene**	**880**	**6,600**
84-74-2	Di-n-Butylphthalate	880	< 880 U
206-44-0	**Fluoranthene**	**880**	**50,000 Q**
129-00-0	**Pyrene**	**880**	**38,000**
85-68-7	Butylbenzylphthalate	880	< 880 U
91-94-1	3,3'-Dichlorobenzidine	4,400	< 4,400 U
56-55-3	**Benzo(a)anthracene**	**880**	**17,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**880**	**3,600**
218-01-9	**Chrysene**	**880**	**20,000**
117-84-0	Di-n-Octyl phthalate	880	< 880 U
205-99-2	**Benzo(b)fluoranthene**	**880**	**10,000**
207-08-9	**Benzo(k)fluoranthene**	**880**	**10,000**
50-32-8	**Benzo(a)pyrene**	**880**	**12,000**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**880**	**4,700**
53-70-3	**Dibenz(a,h)anthracene**	**880**	**2,300**
191-24-2	**Benzo(g,h,i)perylene**	**880**	**4,600**
62-53-3	Aniline	880	< 880 U
90-12-0	**1-Methylnaphthalene**	**880**	**2,700**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	75.6%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	63.6%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	70.4%	2-Fluorophenol	61.6%
2,4,6-Tribromophenol	62.4%	d4-2-Chlorophenol	65.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-3.5-5.2
SAMPLE

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 23:43
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**3,900 ES**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**1,600**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**2,300 ES**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**1,400**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**2,100 ES**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-3.5-5.2
SAMPLE

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Date Analyzed: 03/31/10 23:43

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation
060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**5,100 ES**
86-74-8	**Carbazole**	**20**	**460**
120-12-7	**Anthracene**	**20**	**1,600 E**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**4,800 ESQ**
129-00-0	**Pyrene**	**20**	**3,800 ES**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**1,600 E**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**79**
218-01-9	**Chrysene**	**20**	**1,700 E**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**800**
207-08-9	**Benzo(k)fluoranthene**	**20**	**800**
50-32-8	**Benzo(a)pyrene**	**20**	**950**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**170**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**81**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**160**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**1,800 E**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.2%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	72.3%	2-Fluorophenol	69.9%
2,4,6-Tribromophenol	105%	d4-2-Chlorophenol	72.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-3.5-5.2
DILUTION

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 16:10
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	200	< 200 U
111-44-4	Bis-(2-Chloroethyl) Ether	200	< 200 U
95-57-8	2-Chlorophenol	200	< 200 U
541-73-1	1,3-Dichlorobenzene	200	< 200 U
106-46-7	1,4-Dichlorobenzene	200	< 200 U
100-51-6	Benzyl Alcohol	200	< 200 U
95-50-1	1,2-Dichlorobenzene	200	< 200 U
95-48-7	2-Methylphenol	200	< 200 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	200	< 200 U
106-44-5	4-Methylphenol	200	< 200 U
621-64-7	N-Nitroso-Di-N-Propylamine	980	< 980 U
67-72-1	Hexachloroethane	200	< 200 U
98-95-3	Nitrobenzene	200	< 200 U
78-59-1	Isophorone	200	< 200 U
88-75-5	2-Nitrophenol	980	< 980 U
105-67-9	2,4-Dimethylphenol	200	< 200 U
65-85-0	Benzoic Acid	2,000	< 2,000 U
111-91-1	bis(2-Chloroethoxy) Methane	200	< 200 U
120-83-2	2,4-Dichlorophenol	980	< 980 U
120-82-1	1,2,4-Trichlorobenzene	200	< 200 U
91-20-3	**Naphthalene**	**200**	**4,500**
106-47-8	4-Chloroaniline	980	< 980 U
87-68-3	Hexachlorobutadiene	200	< 200 U
59-50-7	4-Chloro-3-methylphenol	980	< 980 U
91-57-6	**2-Methylnaphthalene**	**200**	**1,400**
77-47-4	Hexachlorocyclopentadiene	980	< 980 U
88-06-2	2,4,6-Trichlorophenol	980	< 980 U
95-95-4	2,4,5-Trichlorophenol	980	< 980 U
91-58-7	2-Chloronaphthalene	200	< 200 U
88-74-4	2-Nitroaniline	980	< 980 U
131-11-3	Dimethylphthalate	200	< 200 U
208-96-8	Acenaphthylene	200	< 200 U
99-09-2	3-Nitroaniline	980	< 980 U
83-32-9	**Acenaphthene**	**200**	**2,000**
51-28-5	2,4-Dinitrophenol	2,000	< 2,000 U
100-02-7	4-Nitrophenol	980	< 980 U
132-64-9	**Dibenzofuran**	**200**	**1,300**
606-20-2	2,6-Dinitrotoluene	980	< 980 U
121-14-2	2,4-Dinitrotoluene	980	< 980 U
84-66-2	Diethylphthalate	200	< 200 U
7005-72-3	4-Chlorophenyl-phenylether	200	< 200 U
86-73-7	**Fluorene**	**200**	**1,800**
100-01-6	4-Nitroaniline	980	< 980 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,000	< 2,000 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-3.5-5.2
DILUTION

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Date Analyzed: 04/01/10 16:10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	200	< 200 U
101-55-3	4-Bromophenyl-phenylether	200	< 200 U
118-74-1	Hexachlorobenzene	200	< 200 U
87-86-5	Pentachlorophenol	980	< 980 U
85-01-8	**Phenanthrene**	**200**	**7,200**
86-74-8	**Carbazole**	**200**	**390**
120-12-7	**Anthracene**	**200**	**1,300**
84-74-2	Di-n-Butylphthalate	200	< 200 U
206-44-0	**Fluoranthene**	**200**	**5,600 Q**
129-00-0	**Pyrene**	**200**	**5,700**
85-68-7	Butylbenzylphthalate	200	< 200 U
91-94-1	3,3'-Dichlorobenzidine	980	< 980 U
56-55-3	**Benzo(a)anthracene**	**200**	**1,400**
117-81-7	bis(2-Ethylhexyl)phthalate	200	< 200 U
218-01-9	**Chrysene**	**200**	**1,800**
117-84-0	Di-n-Octyl phthalate	200	< 200 U
205-99-2	**Benzo(b)fluoranthene**	**200**	**660**
207-08-9	**Benzo(k)fluoranthene**	**200**	**660**
50-32-8	**Benzo(a)pyrene**	**200**	**770**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**200**	**340**
53-70-3	**Dibenz(a,h)anthracene**	**200**	**150 J**
191-24-2	**Benzo(g,h,i)perylene**	**200**	**350**
62-53-3	Aniline	200	< 200 U
90-12-0	**1-Methylnaphthalene**	**200**	**1,700**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	70.0%	d4-1,2-Dichlorobenzene	53.6%
d5-Phenol	67.5%	2-Fluorophenol	68.0%
2,4,6-Tribromophenol	69.1%	d4-2-Chlorophenol	65.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-12.5-14.5
SAMPLE

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 22:03
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	19	< 19 U
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	1,4-Dichlorobenzene	19	< 19 U
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	4-Methylphenol	19	< 19 U
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	96	< 96 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**7,500 ES**
106-47-8	4-Chloroaniline	96	< 96 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	**2-Methylnaphthalene**	**19**	**3,600 ES**
77-47-4	Hexachlorocyclopentadiene	96	< 96 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	Acenaphthylene	19	< 19 U
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	**Acenaphthene**	**19**	**7,100 ES**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	**Dibenzofuran**	**19**	**4,500 ES**
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**4,800 ES**
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-12.5-14.5
SAMPLE

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Date Analyzed: 03/31/10 22:03

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01

CAS Number	Analyte	RL	Result
86-30-6	**N-Nitrosodiphenylamine**	**19**	**160**
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	96	< 96 U
85-01-8	**Phenanthrene**	**19**	**8,300 ES**
86-74-8	**Carbazole**	**19**	**750**
120-12-7	**Anthracene**	**19**	**2,800 ES**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**3,900 ESQ**
129-00-0	**Pyrene**	**19**	**2,700 ES**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	96	< 96 U
56-55-3	**Benzo(a)anthracene**	**19**	**640**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**29**
218-01-9	**Chrysene**	**19**	**650**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**150**
207-08-9	**Benzo(k)fluoranthene**	**19**	**150**
50-32-8	**Benzo(a)pyrene**	**19**	**200**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**33**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**16 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**28**
62-53-3	Aniline	19	< 19 U
90-12-0	**1-Methylnaphthalene**	**19**	**6,100 ES**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.4%	2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	58.0%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	69.6%	2-Fluorophenol	74.1%
2,4,6-Tribromophenol	72.0%	d4-2-Chlorophenol	67.7%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-12.5-14.5
DILUTION

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 14:29
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	190	< 190 U
111-44-4	Bis-(2-Chloroethyl) Ether	190	< 190 U
95-57-8	2-Chlorophenol	190	< 190 U
541-73-1	1,3-Dichlorobenzene	190	< 190 U
106-46-7	1,4-Dichlorobenzene	190	< 190 U
100-51-6	Benzyl Alcohol	190	< 190 U
95-50-1	1,2-Dichlorobenzene	190	< 190 U
95-48-7	2-Methylphenol	190	< 190 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	190	< 190 U
106-44-5	4-Methylphenol	190	< 190 U
621-64-7	N-Nitroso-Di-N-Propylamine	960	< 960 U
67-72-1	Hexachloroethane	190	< 190 U
98-95-3	Nitrobenzene	190	< 190 U
78-59-1	Isophorone	190	< 190 U
88-75-5	2-Nitrophenol	960	< 960 U
105-67-9	2,4-Dimethylphenol	190	< 190 U
65-85-0	Benzoic Acid	1,900	< 1,900 U
111-91-1	bis(2-Chloroethoxy) Methane	190	< 190 U
120-83-2	2,4-Dichlorophenol	960	< 960 U
120-82-1	1,2,4-Trichlorobenzene	190	< 190 U
91-20-3	**Naphthalene**	**190**	**19,000 E**
106-47-8	4-Chloroaniline	960	< 960 U
87-68-3	Hexachlorobutadiene	190	< 190 U
59-50-7	4-Chloro-3-methylphenol	960	< 960 U
91-57-6	**2-Methylnaphthalene**	**190**	**4,200**
77-47-4	Hexachlorocyclopentadiene	960	< 960 U
88-06-2	2,4,6-Trichlorophenol	960	< 960 U
95-95-4	2,4,5-Trichlorophenol	960	< 960 U
91-58-7	2-Chloronaphthalene	190	< 190 U
88-74-4	2-Nitroaniline	960	< 960 U
131-11-3	Dimethylphthalate	190	< 190 U
208-96-8	Acenaphthylene	190	< 190 U
99-09-2	3-Nitroaniline	960	< 960 U
83-32-9	**Acenaphthene**	**190**	**10,000**
51-28-5	2,4-Dinitrophenol	1,900	< 1,900 U
100-02-7	4-Nitrophenol	960	< 960 U
132-64-9	**Dibenzofuran**	**190**	**5,700**
606-20-2	2,6-Dinitrotoluene	960	< 960 U
121-14-2	2,4-Dinitrotoluene	960	< 960 U
84-66-2	Diethylphthalate	190	< 190 U
7005-72-3	4-Chlorophenyl-phenylether	190	< 190 U
86-73-7	**Fluorene**	**190**	**6,100**
100-01-6	4-Nitroaniline	960	< 960 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,900	< 1,900 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-12.5-14.5
DILUTION

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Date Analyzed: 04/01/10 14:29

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	190	< 190 U
101-55-3	4-Bromophenyl-phenylether	190	< 190 U
118-74-1	Hexachlorobenzene	190	< 190 U
87-86-5	Pentachlorophenol	960	< 960 U
85-01-8	**Phenanthrene**	**190**	**19,000 E**
86-74-8	**Carbazole**	**190**	**670**
120-12-7	**Anthracene**	**190**	**3,900**
84-74-2	Di-n-Butylphthalate	190	< 190 U
206-44-0	**Fluoranthene**	**190**	**5,400 Q**
129-00-0	**Pyrene**	**190**	**4,500**
85-68-7	Butylbenzylphthalate	190	< 190 U
91-94-1	3,3'-Dichlorobenzidine	960	< 960 U
56-55-3	**Benzo(a)anthracene**	**190**	**640**
117-81-7	bis(2-Ethylhexyl)phthalate	190	< 190 U
218-01-9	**Chrysene**	**190**	**670**
117-84-0	Di-n-Octyl phthalate	190	< 190 U
205-99-2	**Benzo(b)fluoranthene**	**190**	**130 J**
207-08-9	**Benzo(k)fluoranthene**	**190**	**130 J**
50-32-8	**Benzo(a)pyrene**	**190**	**170 J**
193-39-5	Indeno(1,2,3-cd)pyrene	190	< 190 U
53-70-3	Dibenz(a,h)anthracene	190	< 190 U
191-24-2	Benzo(g,h,i)perylene	190	< 190 U
62-53-3	Aniline	190	< 190 U
90-12-0	**1-Methylnaphthalene**	**190**	**8,900**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	55.2%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	65.6%	d4-1,2-Dichlorobenzene	49.2%
d5-Phenol	61.3%	2-Fluorophenol	65.9%
2,4,6-Tribromophenol	68.0%	d4-2-Chlorophenol	61.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-12.5-14.5
DILUTION

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 18:24
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 30.0
Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	580	< 580 U
111-44-4	Bis-(2-Chloroethyl) Ether	580	< 580 U
95-57-8	2-Chlorophenol	580	< 580 U
541-73-1	1,3-Dichlorobenzene	580	< 580 U
106-46-7	1,4-Dichlorobenzene	580	< 580 U
100-51-6	Benzyl Alcohol	580	< 580 U
95-50-1	1,2-Dichlorobenzene	580	< 580 U
95-48-7	2-Methylphenol	580	< 580 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	580	< 580 U
106-44-5	4-Methylphenol	580	< 580 U
621-64-7	N-Nitroso-Di-N-Propylamine	2,900	< 2,900 U
67-72-1	Hexachloroethane	580	< 580 U
98-95-3	Nitrobenzene	580	< 580 U
78-59-1	Isophorone	580	< 580 U
88-75-5	2-Nitrophenol	2,900	< 2,900 U
105-67-9	2,4-Dimethylphenol	580	< 580 U
65-85-0	Benzoic Acid	5,800	< 5,800 U
111-91-1	bis(2-Chloroethoxy) Methane	580	< 580 U
120-83-2	2,4-Dichlorophenol	2,900	< 2,900 U
120-82-1	1,2,4-Trichlorobenzene	580	< 580 U
91-20-3	**Naphthalene**	**580**	**21,000**
106-47-8	4-Chloroaniline	2,900	< 2,900 U
87-68-3	Hexachlorobutadiene	580	< 580 U
59-50-7	4-Chloro-3-methylphenol	2,900	< 2,900 U
91-57-6	**2-Methylnaphthalene**	**580**	**4,200**
77-47-4	Hexachlorocyclopentadiene	2,900	< 2,900 U
88-06-2	2,4,6-Trichlorophenol	2,900	< 2,900 U
95-95-4	2,4,5-Trichlorophenol	2,900	< 2,900 U
91-58-7	2-Chloronaphthalene	580	< 580 U
88-74-4	2-Nitroaniline	2,900	< 2,900 U
131-11-3	Dimethylphthalate	580	< 580 U
208-96-8	Acenaphthylene	580	< 580 U
99-09-2	3-Nitroaniline	2,900	< 2,900 U
83-32-9	**Acenaphthene**	**580**	**9,700**
51-28-5	2,4-Dinitrophenol	5,800	< 5,800 U
100-02-7	4-Nitrophenol	2,900	< 2,900 U
132-64-9	**Dibenzofuran**	**580**	**5,700**
606-20-2	2,6-Dinitrotoluene	2,900	< 2,900 U
121-14-2	2,4-Dinitrotoluene	2,900	< 2,900 U
84-66-2	Diethylphthalate	580	< 580 U
7005-72-3	4-Chlorophenyl-phenylether	580	< 580 U
86-73-7	**Fluorene**	**580**	**5,900**
100-01-6	4-Nitroaniline	2,900	< 2,900 U
534-52-1	4,6-Dinitro-2-Methylphenol	5,800	< 5,800 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-12.5-14.5
DILUTION

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Date Analyzed: 04/01/10 18:24

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	580	< 580 U
101-55-3	4-Bromophenyl-phenylether	580	< 580 U
118-74-1	Hexachlorobenzene	580	< 580 U
87-86-5	Pentachlorophenol	2,900	< 2,900 U
85-01-8	**Phenanthrene**	**580**	**20,000**
86-74-8	**Carbazole**	**580**	**730**
120-12-7	**Anthracene**	**580**	**4,200**
84-74-2	Di-n-Butylphthalate	580	< 580 U
206-44-0	**Fluoranthene**	**580**	**5,400 Q**
129-00-0	**Pyrene**	**580**	**4,900**
85-68-7	Butylbenzylphthalate	580	< 580 U
91-94-1	3,3'-Dichlorobenzidine	2,900	< 2,900 U
56-55-3	**Benzo(a)anthracene**	**580**	**690**
117-81-7	bis(2-Ethylhexyl)phthalate	580	< 580 U
218-01-9	**Chrysene**	**580**	**650**
117-84-0	Di-n-Octyl phthalate	580	< 580 U
205-99-2	Benzo(b)fluoranthene	580	< 580 U
207-08-9	Benzo(k)fluoranthene	580	< 580 U
50-32-8	Benzo(a)pyrene	580	< 580 U
193-39-5	Indeno(1,2,3-cd)pyrene	580	< 580 U
53-70-3	Dibenz(a,h)anthracene	580	< 580 U
191-24-2	Benzo(g,h,i)perylene	580	< 580 U
62-53-3	Aniline	580	< 580 U
90-12-0	**1-Methylnaphthalene**	**580**	**8,600**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	80.4%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	63.2%	2-Fluorophenol	72.8%
2,4,6-Tribromophenol	49.6%	d4-2-Chlorophenol	65.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-16-18
SAMPLE

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 21:30
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	**2-Methylphenol**	**20**	**21**
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**1,900 ES**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**290**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**1,700 E**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**820**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**790**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-16-18
SAMPLE

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Date Analyzed: 03/31/10 21:30

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**2,200 ES**
86-74-8	**Carbazole**	**20**	**230**
120-12-7	**Anthracene**	**20**	**350**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**590 Q**
129-00-0	**Pyrene**	**20**	**540**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**84**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**220**
218-01-9	**Chrysene**	**20**	**96**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**26**
207-08-9	**Benzo(k)fluoranthene**	**20**	**26**
50-32-8	**Benzo(a)pyrene**	**20**	**32**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**1,100**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	66.8%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	66.7%	2-Fluorophenol	63.2%
2,4,6-Tribromophenol	73.9%	d4-2-Chlorophenol	64.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-16-18
DILUTION

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 13:55
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	< 59 U
111-44-4	Bis-(2-Chloroethyl) Ether	59	< 59 U
95-57-8	2-Chlorophenol	59	< 59 U
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	Benzyl Alcohol	59	< 59 U
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	< 59 U
106-44-5	4-Methylphenol	59	< 59 U
621-64-7	N-Nitroso-Di-N-Propylamine	290	< 290 U
67-72-1	Hexachloroethane	59	< 59 U
98-95-3	Nitrobenzene	59	< 59 U
78-59-1	Isophorone	59	< 59 U
88-75-5	2-Nitrophenol	290	< 290 U
105-67-9	2,4-Dimethylphenol	59	< 59 U
65-85-0	Benzoic Acid	590	< 590 U
111-91-1	bis(2-Chloroethoxy) Methane	59	< 59 U
120-83-2	2,4-Dichlorophenol	290	< 290 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	**Naphthalene**	**59**	**2,000**
106-47-8	4-Chloroaniline	290	< 290 U
87-68-3	Hexachlorobutadiene	59	< 59 U
59-50-7	4-Chloro-3-methylphenol	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**59**	**270**
77-47-4	Hexachlorocyclopentadiene	290	< 290 U
88-06-2	2,4,6-Trichlorophenol	290	< 290 U
95-95-4	2,4,5-Trichlorophenol	290	< 290 U
91-58-7	2-Chloronaphthalene	59	< 59 U
88-74-4	2-Nitroaniline	290	< 290 U
131-11-3	Dimethylphthalate	59	< 59 U
208-96-8	Acenaphthylene	59	< 59 U
99-09-2	3-Nitroaniline	290	< 290 U
83-32-9	**Acenaphthene**	**59**	**1,600**
51-28-5	2,4-Dinitrophenol	590	< 590 U
100-02-7	4-Nitrophenol	290	< 290 U
132-64-9	**Dibenzofuran**	**59**	**750**
606-20-2	2,6-Dinitrotoluene	290	< 290 U
121-14-2	2,4-Dinitrotoluene	290	< 290 U
84-66-2	Diethylphthalate	59	< 59 U
7005-72-3	4-Chlorophenyl-phenylether	59	< 59 U
86-73-7	**Fluorene**	**59**	**760**
100-01-6	4-Nitroaniline	290	< 290 U
534-52-1	4,6-Dinitro-2-Methylphenol	590	< 590 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB01-16-18
DILUTION

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Date Analyzed: 04/01/10 13:55

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
101-55-3	4-Bromophenyl-phenylether	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	290	< 290 U
85-01-8	**Phenanthrene**	**59**	**2,300**
86-74-8	**Carbazole**	**59**	**230**
120-12-7	**Anthracene**	**59**	**320**
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	**Fluoranthene**	**59**	**500 Q**
129-00-0	**Pyrene**	**59**	**470**
85-68-7	Butylbenzylphthalate	59	< 59 U
91-94-1	3,3'-Dichlorobenzidine	290	< 290 U
56-55-3	**Benzo(a)anthracene**	**59**	**92**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**59**	**220**
218-01-9	**Chrysene**	**59**	**97**
117-84-0	Di-n-Octyl phthalate	59	< 59 U
205-99-2	**Benzo(b)fluoranthene**	**59**	**28 J**
207-08-9	**Benzo(k)fluoranthene**	**59**	**28 J**
50-32-8	**Benzo(a)pyrene**	**59**	**32 J**
193-39-5	Indeno(1,2,3-cd)pyrene	59	< 59 U
53-70-3	Dibenz(a,h)anthracene	59	< 59 U
191-24-2	Benzo(g,h,i)perylene	59	< 59 U
62-53-3	Aniline	59	< 59 U
90-12-0	**1-Methylnaphthalene**	**59**	**960**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.8%	2-Fluorobiphenyl	57.1%
d14-p-Terphenyl	65.0%	d4-1,2-Dichlorobenzene	52.4%
d5-Phenol	63.6%	2-Fluorophenol	55.0%
2,4,6-Tribromophenol	82.4%	d4-2-Chlorophenol	61.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-0-2
SAMPLE

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 22:36
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 23.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 46.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	21	< 21 U
111-44-4	Bis-(2-Chloroethyl) Ether	21	< 21 U
95-57-8	2-Chlorophenol	21	< 21 U
541-73-1	1,3-Dichlorobenzene	21	< 21 U
106-46-7	**1,4-Dichlorobenzene**	**21**	**18 J**
100-51-6	Benzyl Alcohol	21	< 21 U
95-50-1	1,2-Dichlorobenzene	21	< 21 U
95-48-7	2-Methylphenol	21	< 21 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	21	< 21 U
106-44-5	4-Methylphenol	21	< 21 U
621-64-7	N-Nitroso-Di-N-Propylamine	110	< 110 U
67-72-1	Hexachloroethane	21	< 21 U
98-95-3	Nitrobenzene	21	< 21 U
78-59-1	Isophorone	21	< 21 U
88-75-5	2-Nitrophenol	110	< 110 U
105-67-9	**2,4-Dimethylphenol**	**21**	**80**
65-85-0	Benzoic Acid	210	< 210 U
111-91-1	bis(2-Chloroethoxy) Methane	21	< 21 U
120-83-2	2,4-Dichlorophenol	110	< 110 U
120-82-1	1,2,4-Trichlorobenzene	21	< 21 U
91-20-3	**Naphthalene**	**21**	**5,200 ES**
106-47-8	4-Chloroaniline	110	< 110 U
87-68-3	Hexachlorobutadiene	21	< 21 U
59-50-7	4-Chloro-3-methylphenol	110	< 110 U
91-57-6	**2-Methylnaphthalene**	**21**	**2,600 ES**
77-47-4	Hexachlorocyclopentadiene	110	< 110 U
88-06-2	2,4,6-Trichlorophenol	110	< 110 U
95-95-4	2,4,5-Trichlorophenol	110	< 110 U
91-58-7	2-Chloronaphthalene	21	< 21 U
88-74-4	2-Nitroaniline	110	< 110 U
131-11-3	Dimethylphthalate	21	< 21 U
208-96-8	Acenaphthylene	21	< 21 U
99-09-2	3-Nitroaniline	110	< 110 U
83-32-9	**Acenaphthene**	**21**	**4,100 ES**
51-28-5	2,4-Dinitrophenol	210	< 210 U
100-02-7	4-Nitrophenol	110	< 110 U
132-64-9	**Dibenzofuran**	**21**	**2,600 ES**
606-20-2	2,6-Dinitrotoluene	110	< 110 U
121-14-2	2,4-Dinitrotoluene	110	< 110 U
84-66-2	Diethylphthalate	21	< 21 U
7005-72-3	4-Chlorophenyl-phenylether	21	< 21 U
86-73-7	**Fluorene**	**21**	**3,600 ES**
100-01-6	4-Nitroaniline	110	< 110 U
534-52-1	4,6-Dinitro-2-Methylphenol	210	< 210 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-0-2
SAMPLE

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Date Analyzed: 03/31/10 22:36

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation
060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	21	< 21 U
101-55-3	4-Bromophenyl-phenylether	21	< 21 U
118-74-1	Hexachlorobenzene	21	< 21 U
87-86-5	Pentachlorophenol	110	< 110 U
85-01-8	**Phenanthrene**	**21**	**6,300 ES**
86-74-8	**Carbazole**	**21**	**760**
120-12-7	**Anthracene**	**21**	**1,500 M**
84-74-2	Di-n-Butylphthalate	21	< 21 U
206-44-0	**Fluoranthene**	**21**	**5,100 ESQ**
129-00-0	**Pyrene**	**21**	**5,200 ES**
85-68-7	Butylbenzylphthalate	21	< 21 U
91-94-1	3,3'-Dichlorobenzidine	110	< 110 U
56-55-3	**Benzo(a)anthracene**	**21**	**1,500 M**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**21**	**1,600**
218-01-9	**Chrysene**	**21**	**2,000 ES**
117-84-0	Di-n-Octyl phthalate	21	< 21 U
205-99-2	**Benzo(b)fluoranthene**	**21**	**910**
207-08-9	**Benzo(k)fluoranthene**	**21**	**910**
50-32-8	**Benzo(a)pyrene**	**21**	**760**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**21**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**21**	**73**
191-24-2	**Benzo(g,h,i)perylene**	**21**	**140**
62-53-3	Aniline	21	< 21 U
90-12-0	**1-Methylnaphthalene**	**21**	**2,000 E**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	47.2%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	83.2%	d4-1,2-Dichlorobenzene	50.4%
d5-Phenol	64.8%	2-Fluorophenol	68.0%
2,4,6-Tribromophenol	99.2%	d4-2-Chlorophenol	64.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-0-2
DILUTION

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 15:02
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 23.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 46.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	210	< 210 U
111-44-4	Bis-(2-Chloroethyl) Ether	210	< 210 U
95-57-8	2-Chlorophenol	210	< 210 U
541-73-1	1,3-Dichlorobenzene	210	< 210 U
106-46-7	1,4-Dichlorobenzene	210	< 210 U
100-51-6	Benzyl Alcohol	210	< 210 U
95-50-1	1,2-Dichlorobenzene	210	< 210 U
95-48-7	2-Methylphenol	210	< 210 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	210	< 210 U
106-44-5	4-Methylphenol	210	< 210 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,100	< 1,100 U
67-72-1	Hexachloroethane	210	< 210 U
98-95-3	Nitrobenzene	210	< 210 U
78-59-1	Isophorone	210	< 210 U
88-75-5	2-Nitrophenol	1,100	< 1,100 U
105-67-9	2,4-Dimethylphenol	210	< 210 U
65-85-0	Benzoic Acid	2,100	< 2,100 U
111-91-1	bis(2-Chloroethoxy) Methane	210	< 210 U
120-83-2	2,4-Dichlorophenol	1,100	< 1,100 U
120-82-1	1,2,4-Trichlorobenzene	210	< 210 U
91-20-3	**Naphthalene**	**210**	**10,000**
106-47-8	4-Chloroaniline	1,100	< 1,100 U
87-68-3	Hexachlorobutadiene	210	< 210 U
59-50-7	4-Chloro-3-methylphenol	1,100	< 1,100 U
91-57-6	**2-Methylnaphthalene**	**210**	**2,700**
77-47-4	Hexachlorocyclopentadiene	1,100	< 1,100 U
88-06-2	2,4,6-Trichlorophenol	1,100	< 1,100 U
95-95-4	2,4,5-Trichlorophenol	1,100	< 1,100 U
91-58-7	2-Chloronaphthalene	210	< 210 U
88-74-4	2-Nitroaniline	1,100	< 1,100 U
131-11-3	Dimethylphthalate	210	< 210 U
208-96-8	Acenaphthylene	210	< 210 U
99-09-2	3-Nitroaniline	1,100	< 1,100 U
83-32-9	**Acenaphthene**	**210**	**4,400**
51-28-5	2,4-Dinitrophenol	2,100	< 2,100 U
100-02-7	4-Nitrophenol	1,100	< 1,100 U
132-64-9	**Dibenzofuran**	**210**	**2,600**
606-20-2	2,6-Dinitrotoluene	1,100	< 1,100 U
121-14-2	2,4-Dinitrotoluene	1,100	< 1,100 U
84-66-2	Diethylphthalate	210	< 210 U
7005-72-3	4-Chlorophenyl-phenylether	210	< 210 U
86-73-7	**Fluorene**	**210**	**3,300**
100-01-6	4-Nitroaniline	1,100	< 1,100 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,100	< 2,100 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-0-2
DILUTION

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Date Analyzed: 04/01/10 15:02

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	210	< 210 U
101-55-3	4-Bromophenyl-phenylether	210	< 210 U
118-74-1	Hexachlorobenzene	210	< 210 U
87-86-5	Pentachlorophenol	1,100	< 1,100 U
85-01-8	**Phenanthrene**	**210**	**8,500**
86-74-8	**Carbazole**	**210**	**700**
120-12-7	**Anthracene**	**210**	**1,300**
84-74-2	Di-n-Butylphthalate	210	< 210 U
206-44-0	**Fluoranthene**	**210**	**7,200 Q**
129-00-0	**Pyrene**	**210**	**6,800**
85-68-7	Butylbenzylphthalate	210	< 210 U
91-94-1	3,3'-Dichlorobenzidine	1,100	< 1,100 U
56-55-3	**Benzo(a)anthracene**	**210**	**1,300**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**210**	**1,300**
218-01-9	**Chrysene**	**210**	**2,000**
117-84-0	Di-n-Octyl phthalate	210	< 210 U
205-99-2	**Benzo(b)fluoranthene**	**210**	**770**
207-08-9	**Benzo(k)fluoranthene**	**210**	**770**
50-32-8	**Benzo(a)pyrene**	**210**	**770**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**210**	**250**
53-70-3	**Dibenz(a,h)anthracene**	**210**	**110 J**
191-24-2	**Benzo(g,h,i)perylene**	**210**	**260**
62-53-3	Aniline	210	< 210 U
90-12-0	**1-Methylnaphthalene**	**210**	**1,900**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	50.4%	2-Fluorobiphenyl	63.6%
d14-p-Terphenyl	60.8%	d4-1,2-Dichlorobenzene	46.8%
d5-Phenol	58.1%	2-Fluorophenol	62.1%
2,4,6-Tribromophenol	68.0%	d4-2-Chlorophenol	56.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-4-6
SAMPLE

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 20:56
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
111-44-4	Bis-(2-Chloroethyl) Ether	58	< 58 U
95-57-8	2-Chlorophenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58	< 58 U
106-44-5	4-Methylphenol	58	< 58 U
621-64-7	N-Nitroso-Di-N-Propylamine	290	< 290 U
67-72-1	Hexachloroethane	58	< 58 U
98-95-3	Nitrobenzene	58	< 58 U
78-59-1	Isophorone	58	< 58 U
88-75-5	2-Nitrophenol	290	< 290 U
105-67-9	2,4-Dimethylphenol	58	< 58 U
65-85-0	Benzoic Acid	580	< 580 U
111-91-1	bis(2-Chloroethoxy) Methane	58	< 58 U
120-83-2	2,4-Dichlorophenol	290	< 290 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	**Naphthalene**	**58**	**180**
106-47-8	4-Chloroaniline	290	< 290 U
87-68-3	Hexachlorobutadiene	58	< 58 U
59-50-7	4-Chloro-3-methylphenol	290	< 290 U
91-57-6	**2-Methylnaphthalene**	**58**	**71**
77-47-4	Hexachlorocyclopentadiene	290	< 290 U
88-06-2	2,4,6-Trichlorophenol	290	< 290 U
95-95-4	2,4,5-Trichlorophenol	290	< 290 U
91-58-7	2-Chloronaphthalene	58	< 58 U
88-74-4	2-Nitroaniline	290	< 290 U
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	**Acenaphthylene**	**58**	**56 J**
99-09-2	3-Nitroaniline	290	< 290 U
83-32-9	**Acenaphthene**	**58**	**700**
51-28-5	2,4-Dinitrophenol	580	< 580 U
100-02-7	4-Nitrophenol	290	< 290 U
132-64-9	**Dibenzofuran**	**58**	**200**
606-20-2	2,6-Dinitrotoluene	290	< 290 U
121-14-2	2,4-Dinitrotoluene	290	< 290 U
84-66-2	Diethylphthalate	58	< 58 U
7005-72-3	4-Chlorophenyl-phenylether	58	< 58 U
86-73-7	**Fluorene**	**58**	**460**
100-01-6	4-Nitroaniline	290	< 290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580	< 580 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-4-6
SAMPLE

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Date Analyzed: 03/31/10 20:56

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
101-55-3	4-Bromophenyl-phenylether	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	290	< 290 U
85-01-8	**Phenanthrene**	**58**	**2,000**
86-74-8	**Carbazole**	**58**	**100**
120-12-7	**Anthracene**	**58**	**880**
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	**Fluoranthene**	**58**	**5,300 EQ**
129-00-0	**Pyrene**	**58**	**3,300**
85-68-7	Butylbenzylphthalate	58	< 58 U
91-94-1	3,3'-Dichlorobenzidine	290	< 290 U
56-55-3	**Benzo(a)anthracene**	**58**	**1,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**58**	**36 J**
218-01-9	**Chrysene**	**58**	**1,600**
117-84-0	Di-n-Octyl phthalate	58	< 58 U
205-99-2	**Benzo(b)fluoranthene**	**58**	**610**
207-08-9	**Benzo(k)fluoranthene**	**58**	**610**
50-32-8	**Benzo(a)pyrene**	**58**	**670**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**58**	**65**
191-24-2	**Benzo(g,h,i)perylene**	**58**	**140**
62-53-3	Aniline	58	< 58 U
90-12-0	**1-Methylnaphthalene**	**58**	**79**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.4%	2-Fluorobiphenyl	71.5%
d14-p-Terphenyl	62.5%	d4-1,2-Dichlorobenzene	56.9%
d5-Phenol	61.0%	2-Fluorophenol	59.8%
2,4,6-Tribromophenol	86.4%	d4-2-Chlorophenol	59.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-4-6
DILUTION

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 04/01/10 13:22
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 10.0
Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	200	< 200 U
111-44-4	Bis-(2-Chloroethyl) Ether	200	< 200 U
95-57-8	2-Chlorophenol	200	< 200 U
541-73-1	1,3-Dichlorobenzene	200	< 200 U
106-46-7	1,4-Dichlorobenzene	200	< 200 U
100-51-6	Benzyl Alcohol	200	< 200 U
95-50-1	1,2-Dichlorobenzene	200	< 200 U
95-48-7	2-Methylphenol	200	< 200 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	200	< 200 U
106-44-5	4-Methylphenol	200	< 200 U
621-64-7	N-Nitroso-Di-N-Propylamine	970	< 970 U
67-72-1	Hexachloroethane	200	< 200 U
98-95-3	Nitrobenzene	200	< 200 U
78-59-1	Isophorone	200	< 200 U
88-75-5	2-Nitrophenol	970	< 970 U
105-67-9	2,4-Dimethylphenol	200	< 200 U
65-85-0	Benzoic Acid	2,000	< 2,000 U
111-91-1	bis(2-Chloroethoxy) Methane	200	< 200 U
120-83-2	2,4-Dichlorophenol	970	< 970 U
120-82-1	1,2,4-Trichlorobenzene	200	< 200 U
91-20-3	**Naphthalene**	**200**	**160 J**
106-47-8	4-Chloroaniline	970	< 970 U
87-68-3	Hexachlorobutadiene	200	< 200 U
59-50-7	4-Chloro-3-methylphenol	970	< 970 U
91-57-6	**2-Methylnaphthalene**	**200**	**62 J**
77-47-4	Hexachlorocyclopentadiene	970	< 970 U
88-06-2	2,4,6-Trichlorophenol	970	< 970 U
95-95-4	2,4,5-Trichlorophenol	970	< 970 U
91-58-7	2-Chloronaphthalene	200	< 200 U
88-74-4	2-Nitroaniline	970	< 970 U
131-11-3	Dimethylphthalate	200	< 200 U
208-96-8	Acenaphthylene	200	< 200 U
99-09-2	3-Nitroaniline	970	< 970 U
83-32-9	**Acenaphthene**	**200**	**580**
51-28-5	2,4-Dinitrophenol	2,000	< 2,000 U
100-02-7	4-Nitrophenol	970	< 970 U
132-64-9	**Dibenzofuran**	**200**	**170 J**
606-20-2	2,6-Dinitrotoluene	970	< 970 U
121-14-2	2,4-Dinitrotoluene	970	< 970 U
84-66-2	Diethylphthalate	200	< 200 U
7005-72-3	4-Chlorophenyl-phenylether	200	< 200 U
86-73-7	**Fluorene**	**200**	**350**
100-01-6	4-Nitroaniline	970	< 970 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,000	< 2,000 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-4-6
DILUTION

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Date Analyzed: 04/01/10 13:22

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	200	< 200 U
101-55-3	4-Bromophenyl-phenylether	200	< 200 U
118-74-1	Hexachlorobenzene	200	< 200 U
87-86-5	Pentachlorophenol	970	< 970 U
85-01-8	**Phenanthrene**	**200**	**1,700**
86-74-8	Carbazole	200	< 200 U
120-12-7	**Anthracene**	**200**	**690**
84-74-2	Di-n-Butylphthalate	200	< 200 U
206-44-0	**Fluoranthene**	**200**	**4,200 Q**
129-00-0	**Pyrene**	**200**	**3,400**
85-68-7	Butylbenzylphthalate	200	< 200 U
91-94-1	3,3'-Dichlorobenzidine	970	< 970 U
56-55-3	**Benzo(a)anthracene**	**200**	**920**
117-81-7	bis(2-Ethylhexyl)phthalate	200	< 200 U
218-01-9	**Chrysene**	**200**	**1,200**
117-84-0	Di-n-Octyl phthalate	200	< 200 U
205-99-2	**Benzo(b)fluoranthene**	**200**	**460**
207-08-9	**Benzo(k)fluoranthene**	**200**	**460**
50-32-8	**Benzo(a)pyrene**	**200**	**530**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**200**	**200**
53-70-3	**Dibenz(a,h)anthracene**	**200**	**99 J**
191-24-2	**Benzo(g,h,i)perylene**	**200**	**230**
62-53-3	Aniline	200	< 200 U
90-12-0	**1-Methylnaphthalene**	**200**	**72 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	54.0%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	58.8%	d4-1,2-Dichlorobenzene	49.2%
d5-Phenol	52.5%	2-Fluorophenol	58.7%
2,4,6-Tribromophenol	71.7%	d4-2-Chlorophenol	53.3%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-12-14
SAMPLE

Lab Sample ID: QP28B
LIMS ID: 10-7455
Matrix: Sediment
Data Release Authorized:
Reported: 04/02/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/26/10
Date Analyzed: 03/31/10 20:23
Instrument/Analyst: NT4/JZ
GPC Cleanup: Yes

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 31.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**55**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**15 J**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**130**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**35**
606-20-2	2,6-Dinitrotoluene	98	< 98 U
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	**Diethylphthalate**	**20**	**11 J**
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**42**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW10-SB02-12-14
SAMPLE

Lab Sample ID: QP28B
LIMS ID: 10-7455
Matrix: Sediment
Date Analyzed: 03/31/10 20:23

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**130**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**26**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**91 Q**
129-00-0	**Pyrene**	**20**	**88**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**23**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**28**
218-01-9	**Chrysene**	**20**	**27**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**12 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**12 J**
50-32-8	**Benzo(a)pyrene**	**20**	**16 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**11 J**
62-53-3	Aniline	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**20**	**17 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.0%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	82.8%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	62.9%	2-Fluorophenol	68.3%
2,4,6-Tribromophenol	59.2%	d4-2-Chlorophenol	61.9%

FORM I

BORES – SIM SVOCs

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB01-0-2**
 SAMPLE

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation
Event: 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/25/10
Date Analyzed: 04/06/10 01:06
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 50.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**18**	**760**
106-46-7	**1,4-Dichlorobenzene**	**18**	**27**
120-82-1	1,2,4-Trichlorobenzene	18	< 18 U
118-74-1	Hexachlorobenzene	18	< 18 U
87-68-3	Hexachlorobutadiene	18	< 18 U
131-11-3	Dimethylphthalate	45	< 45 U
85-68-7	**Butylbenzylphthalate**	**45**	**63 M**
95-48-7	2-Methylphenol	18	< 18 U
105-67-9	2,4-Dimethylphenol	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	290	< 290 Y
100-51-6	Benzyl Alcohol	90	< 90 U
87-86-5	Pentachlorophenol	90	< 90 U
95-50-1	1,2-Dichlorobenzene	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	90	< 90 U
62-75-9	N-Nitrosodimethylamine	90	< 90 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	62.4%	d5-Phenol	58.4%
2-Fluorophenol	53.6%	d4-2-Chlorophenol	52.8%
d4-1,2-Dichlorobenzene	67.2%	d5-Nitrobenzene	68.4%
2,4,6-Tribromophenol	46.4%	d14-p-Terphenyl	NR

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB01-3.5-5.2**
 SAMPLE

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation
Event: 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/25/10
Date Analyzed: 04/06/10 00:34
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.9 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**5.9**	**44**
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	5.9	< 5.9 U
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	63	< 63 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	83.2%	d5-Phenol	74.1%
2-Fluorophenol	63.5%	d4-2-Chlorophenol	65.9%
d4-1,2-Dichlorobenzene	72.0%	d5-Nitrobenzene	67.2%
2,4,6-Tribromophenol	43.2%	d14-p-Terphenyl	122%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB01-12.5-14.5**
 SAMPLE

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/25/10
Date Analyzed: 04/05/10 23:31
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.0**	**16**
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	**2-Methylphenol**	**6.0**	**9.5**
105-67-9	2,4-Dimethylphenol	70	< 70 Y
86-30-6	N-Nitrosodiphenylamine	330	< 330 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	53.6%	d5-Phenol	80.0%
2-Fluorophenol	75.2%	d4-2-Chlorophenol	97.9%
d4-1,2-Dichlorobenzene	78.8%	d5-Nitrobenzene	59.6%
2,4,6-Tribromophenol	36.5%	d14-p-Terphenyl	96.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB01-16-18**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/25/10
Date Analyzed: 04/05/10 22:59
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	5.9	< 5.9 U
106-46-7	1,4-Dichlorobenzene	5.9	< 5.9 U
120-82-1	1,2,4-Trichlorobenzene	5.9	< 5.9 U
118-74-1	Hexachlorobenzene	5.9	< 5.9 U
87-68-3	Hexachlorobutadiene	5.9	< 5.9 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	**2-Methylphenol**	**5.9**	**24**
105-67-9	2,4-Dimethylphenol	5.9	< 5.9 U
86-30-6	N-Nitrosodiphenylamine	58	< 58 Y
100-51-6	Benzyl Alcohol	29	< 29 U
87-86-5	Pentachlorophenol	29	< 29 U
95-50-1	1,2-Dichlorobenzene	5.9	< 5.9 U
621-64-7	N-Nitroso-Di-N-Propylamine	29	< 29 U
62-75-9	N-Nitrosodimethylamine	29	< 29 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.8%	d5-Phenol	68.8%
2-Fluorophenol	64.0%	d4-2-Chlorophenol	81.9%
d4-1,2-Dichlorobenzene	69.2%	d5-Nitrobenzene	76.8%
2,4,6-Tribromophenol	36.5%	d14-p-Terphenyl	91.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB02-0-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation
Event: 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/25/10
Date Analyzed: 04/06/10 00:02
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 46.1%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**32**
106-46-7	**1,4-Dichlorobenzene**	**6.2**	**15**
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**51**
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 Y
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	75.6%	d5-Phenol	77.3%
2-Fluorophenol	66.9%	d4-2-Chlorophenol	72.8%
d4-1,2-Dichlorobenzene	75.2%	d5-Nitrobenzene	69.2%
2,4,6-Tribromophenol	42.1%	d14-p-Terphenyl	124%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB02-4-6**
Page 1 of 1 **SAMPLE**

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/25/10
Date Analyzed: 04/05/10 22:27
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
53-70-3	**Dibenz(a,h)anthracene**	**6.2**	**19**
106-46-7	1,4-Dichlorobenzene	6.2	< 6.2 U
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	16	< 16 U
85-68-7	Butylbenzylphthalate	16	< 16 U
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	16	< 16 Y
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U
621-64-7	N-Nitroso-Di-N-Propylamine	31	< 31 U
62-75-9	N-Nitrosodimethylamine	31	< 31 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	71.2%	d5-Phenol	61.9%
2-Fluorophenol	56.8%	d4-2-Chlorophenol	58.1%
d4-1,2-Dichlorobenzene	60.0%	d5-Nitrobenzene	72.4%
2,4,6-Tribromophenol	13.3%	d14-p-Terphenyl	77.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: EW10-SB02-12-14**
 SAMPLE

Lab Sample ID: QP28B
LIMS ID: 10-7455
Matrix: Sediment
Data Release Authorized:
Reported: 04/08/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv.
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/25/10
Date Analyzed: 04/05/10 20:52
Instrument/Analyst: NT2/PK
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 31.7%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	Butylbenzylphthalate	15	< 15 U
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	6.0	< 6.0 U
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	30	< 30 U
62-75-9	N-Nitrosodimethylamine	30	< 30 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	76.4%	d5-Phenol	69.1%
2-Fluorophenol	67.2%	d4-2-Chlorophenol	69.6%
d4-1,2-Dichlorobenzene	68.0%	d5-Nitrobenzene	78.8%
2,4,6-Tribromophenol	73.9%	d14-p-Terphenyl	98.4%

BORES – PCBs

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB01-0-2
SAMPLE

Lab Sample ID: QP39B
LIMS ID: 10-7507
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/29/10
Date Analyzed: 04/02/10 12:43
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 50.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	79	< 79 U
53469-21-9	Aroclor 1242	79	< 79 U
12672-29-6	**Aroclor 1248**	**79**	**2,100**
11097-69-1	**Aroclor 1254**	**79**	**2,700**
11096-82-5	**Aroclor 1260**	**79**	**2,600**
11104-28-2	Aroclor 1221	79	< 79 U
11141-16-5	Aroclor 1232	79	< 79 U
37324-23-5	Aroclor 1262	79	< 79 U
11100-14-4	Aroclor 1268	79	< 79 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	112%
Tetrachlorometaxylene	75.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB01-3.5-5.2
SAMPLE

Lab Sample ID: QP39C
LIMS ID: 10-7508
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/29/10
Date Analyzed: 03/31/10 17:56
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 36.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	**Aroclor 1248**	**3.9**	**29**
11097-69-1	**Aroclor 1254**	**3.9**	**34**
11096-82-5	**Aroclor 1260**	**3.9**	**81**
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.5%
Tetrachlorometaxylene	78.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB01-12.5-14.5
SAMPLE

Lab Sample ID: QP28E
LIMS ID: 10-7458
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/29/10
Date Analyzed: 04/01/10 15:41
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	Aroclor 1254	20	< 20 U
11096-82-5	Aroclor 1260	20	< 20 U
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	29	< 29 Y
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.9%
Tetrachlorometaxylene	66.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB01-16-18
SAMPLE

Lab Sample ID: QP28D
LIMS ID: 10-7457
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/29/10
Date Analyzed: 03/31/10 16:52
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 23.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	108%
Tetrachlorometaxylene	96.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB02-0-2
SAMPLE

Lab Sample ID: QP39A
LIMS ID: 10-7506
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP39-Anchor QEA, LLC.
Project: E Waterway Subsurface Investigation 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Date Extracted: 03/29/10
Date Analyzed: 04/02/10 12:22
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 46.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	**Aroclor 1248**	**39**	**1,000**
11097-69-1	**Aroclor 1254**	**39**	**1,200**
11096-82-5	**Aroclor 1260**	**39**	**1,000**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	115%
Tetrachlorometaxylene	81.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB02-4-6
SAMPLE

Lab Sample ID: QP28C
LIMS ID: 10-7456
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/29/10
Date Analyzed: 04/01/10 15:20
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 38.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	48	< 48 Y
11097-69-1	Aroclor 1254	77	< 77 Y
11096-82-5	**Aroclor 1260**	**19**	**150**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U
37324-23-5	Aroclor 1262	19	< 19 U
11100-14-4	Aroclor 1268	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	74.0%
Tetrachlorometaxylene	65.1%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: EW10-SB02-12-14
SAMPLE

Lab Sample ID: QP28B
LIMS ID: 10-7455
Matrix: Sediment
Data Release Authorized:
Reported: 04/05/10

QC Report No: QP28-Anchor QEA, LLC.
Project: East Waterway Subsurface Inv. 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Date Extracted: 03/29/10
Date Analyzed: 03/31/10 16:30
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 31.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	94.8%
Tetrachlorometaxylene	86.8%

FORM I

BORES – GRAIN SIZE

Anchor QEA, LLC
060003-01
East Waterway Subsurface Inv.

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SB01-0-2	4.6	3.8	3.7	14.3	11.7	6.5	4.6	8.7	12.3	8.6	6.3	5.4	9.4	55.4
	4.3	3.1	3.5	14.4	11.2	6.4	4.8	9.3	13.1	8.6	6.4	5.3	9.8	57.1
	3.4	2.9	3.9	14.1	11.3	6.4	5.5	9.4	13.1	8.6	6.5	5.1	9.8	58.0
EW10-SB02-12-14	0.0	0.3	0.5	0.7	5.0	17.0	21.9	17.8	12.2	7.3	5.6	4.0	7.8	76.5
EW10-SB02-4-6	14.8	3.1	1.9	3.7	4.3	4.1	6.3	9.3	11.6	10.6	10.4	7.1	12.7	68.0
EW10-SB01-16-18	1.3	0.6	3.2	19.4	22.4	14.7	11.1	8.9	6.0	4.1	2.8	1.8	3.7	38.3
EW10-SB01-12.5-14.5	7.7	4.7	5.5	12.0	20.5	14.5	9.4	6.4	5.0	3.7	3.5	2.5	4.7	35.1
EW10-SB02-4-6A	11.9	2.8	1.4	3.3	8.1	5.8	9.0	12.6	11.1	10.3	8.2	5.3	10.4	66.9

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QP28 : 000139

Anchor QEA, LLC
060003-01
E Waterway Subsurface Investigation

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
EW10-SB01-0-2	4.6	3.8	3.7	14.3	11.7	6.5	4.6	8.7	12.3	8.6	6.3	5.4	9.4	55.4
	4.3	3.1	3.5	14.4	11.2	6.4	4.8	9.3	13.1	8.6	6.4	5.3	9.8	57.1
	3.4	2.9	3.9	14.1	11.3	6.4	5.5	9.4	13.1	8.6	6.5	5.1	9.8	58.0
EW10-SB02-0-2	5.1	3.1	3.3	7.0	8.8	8.7	7.0	9.6	13.8	9.8	7.1	6.2	10.6	64.1
EW10-SB01-3.5-5.2	14.9	4.0	2.8	8.0	12.1	7.1	7.3	8.3	9.8	7.5	5.7	4.6	7.9	51.1

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QP28 : 00145

BORES – CONVENTIONALS

SAMPLE RESULTS-CONVENTIONALS
QP39-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 04/01/10

Project: E Waterway Subsurface Invest
Event: 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Client ID: EW10-SB01-0-2
ARI ID: 10-7507 QP39B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	52.20
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	2.79

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QP39-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 04/01/10

Project: E Waterway Subsurface Invest
Event: 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Client ID: EW10-SB01-3.5-5.2
ARI ID: 10-7508 QP39C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	65.50
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	1.51

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QP28-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 04/01/10

Project: East Waterway Subsurface Inv
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Client ID: EW10-SB01-12.5-14.5
ARI ID: 10-7458 QP28E

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	76.00
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	0.747

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QP28-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 04/01/10

Project: East Waterway Subsurface Inv
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Client ID: EW10-SB01-16-18
ARI ID: 10-7457 QP28D

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	77.00
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	0.829

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QP39-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 04/01/10

Project: E Waterway Subsurface Invest
Event: 060003-01
Date Sampled: 03/23/10
Date Received: 03/23/10

Client ID: EW10-SB02-0-2
ARI ID: 10-7506 QP39A

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	54.00
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	2.63

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QP28-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 04/01/10

Project: East Waterway Subsurface Inv
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Client ID: EW10-SB02-4-6
ARI ID: 10-7456 QP28C

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	63.80
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	1.42

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QP28-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 04/01/10

Project: East Waterway Subsurface Inv
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Client ID: EW10-SB02-12-14
ARI ID: 10-7455 QP28B

Analyte	Date	Method	Units	RL	Sample
Total Solids	03/23/10 032310#1	EPA 160.3	Percent	0.01	68.50
Total Organic Carbon	03/30/10 033010#1	Plumb,1981	Percent	0.020	0.938

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
QP28-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 04/01/10

Project: East Waterway Subsurface Inv
Event: 060003-01
Date Sampled: 03/22/10
Date Received: 03/22/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QP28B Client ID: EW10-SB02-12-14					
Total Solids	03/23/10	Percent	68.50	68.60 68.80	0.2%
Total Organic Carbon	03/30/10	Percent	0.938	0.880 0.804	7.7%

APPENDIX F

Field Forms

LOG BOOKS

Boat log book

2-24-10 S. Fowler

0730 Arrive at Harbor Island Marina
Weather: overcast, light rain, 40's/50s.
Crew: Sarah Fowler (Windward)
Dino Marshalonis (Anchor)
Peter Leon (Parametrix)
Bill Jaworski (MSS)
Dale Dickinson (MSS)
~~0758~~ ~~Loa~~ David Gillingham (Anchor)
0758 Load cores onto sampling boat
0836 Motor to first sampling location.
0840 Health & Safety breifing.
0900 Arrive at Station EW10-SC35
Set up vibracore
0940 EW10-SC35 attempt 1 - acceptable.
1011 Weather changed - sunny w/clouds
EW10-SC35
Lat: 47 34.8486 water depth 55.4 ft
Long 122 20.5898
1032 Motor to second location
1035 EW10-SC38 attempt 1 - acceptable.
Lat: 47.34.8945 water depth 63 ft
long: 122 20.5982
1123 Vibracore tipped over and broke hydraulic lines. EW10-SC41 (attempt 1) unsuccessful

2-24-10 S. Fowler

1148 vibracore is fixed - motor back to Location
1153 EW10-SC41 - attempt 2 - acceptable
Lat 47° 35.0284 water depth. 64 ft.
long 122° 20.5975
Slight over penetration (~2 inches)
1232 drop of cores to Leslie @ Jack Perry Park.
EW10-SC35, EW10-SC38 and EW10-SC41.
1300 motor to EW10-SC45
1308 EW10-SC45 attempt 1 - acceptable
Lat 47° 35.1335 water depth 63.5 ft.
long 122° 20.6034
Slight overpenetration.
1416 EW10-SC23 attempt 1
attempted to sample out side
wind is too strong - cannot sample.
Weather → overcast & windy, rain
1428 EW10-SC19 attempt 1 acceptable
Lat: 47° 34.6201
long: 122° 20.5929
water depth 59 ft.
1516 EW10-SC21 attempt 1 acceptable
water depth 56.7 ft.

2-24-10 S. Fowler

Lat: 47° 34.6569
long: 122° 20.5930

1539 EW10-SC20 attempt 1 (SF)
water depth ~~61.5 ft~~ 59.0 ft
lat: 47° 34.6303
long: 122° 20.6127

1547 continue to process cores and motor back to Harbor Island Marina.

1555 navigation check
lat: 47° 35.4293
long: 122° 20.7621

1625 arrive at Harbor Island Marina to off load cores to Leslie.

2-24-10

2-25-10 S. Fowler

0800 Arrive at Harbor Island marina
Weather: overcast. 40's/50's
Crew: Sarah Fowler (Windward)
Dino Marshalonis (Anchor)
Peter Leon (Parametrix)
Bill Janowski (MSS)
Dale Dickenson (MSS)
David Killingham (Anchor)

0821 motor to ~~Heath~~ (SF) first location.

0840 Navigation check
Lat: 47° 35.4294
Long: 122° 20.7618

0855 EW10-SC37
water depth: 61.2 ft
Lat: 47° 34.3911
long: 122° 20.7347

0945 EW10-SC43
water depth 64.8 ft
lat: 47° 35.0620
long: 122° 20.7367

1041 Station EW10-SC46
core tipped over - must re-do.

1055 EW10-SC46

2-25-10 S. Fowler

water depth: 63.4 ft
lat: 47° 35.1465
long: 122° 20.7433

1145 lunch break.
1205 motor to next location
1220 EW10-SC55
water depth 66.0 ft
lat: 47° 35.3652
long: 122° 20.7425
1310 finish processing & mob back to Harbor Island.
1325 arrive at Harbor Island marina.

2-25-10

2-26-10 S. Fowler

0745 Arrive at Harbor Island marina
weather: cloudy, 50's, rainy 40's
crew: Sarah Fowler (WW)
Bill Jarworski (MSS)
Dale Dickenson (MSS)
Dave Gillingham (Anchor)
Nathan Soccorsy (Anchor)
0818 motor to EW
0855 EW10-SC10
water depth 45.0 ft
lat: 47° 34.4342
long: 122° 20.7462
0945 EW10-SC12
water depth 48.4 ft
lat: 47° 34.5026
long: 122° 20.7204
1030 EW10-SC15
water depth 51.1 ft
lat: 47° 34.5570
long: 122° 20.7400
1130 lunch break
1150 motor to next location
1155 EW10-SC07

2-26-10 S. Fowler

Station is in between several large boats. actual sampling location is about ~~28~~ 32 ft from target.

1215 EW10-SC07B
water depth 26.8 ft.
lat: 47° 34.3678
long: 122° 20.7202

1250 EW10-SC18
water depth 55.5
lat: 47° 34.6041
long: 122° 20.7487

1309 continue to process cores & motor back to Harbor Island marina.

1317 Navigation check
lat: } 3 computer crash
long: } coordinates lost

1344 Arrive @ Harbor Island marina. Finish processing last core & offload supplies.

2-26-10

3-1-10 S. Fowler

0730 Arrive at Harbor Island marina and load supplies onto boat.
weather: overcast, ~~40's~~ 50's.
crew Sarah Fowler (WW)
Joy Dunay (Anchor)
David Gillingham (Anchor)
Dale Dickenson (MSS)
Bill Jaworski (MSS)

0820 motor to EW

0837 Navigation check
lat: 47° 35.4293
long: 122° 20.7620

0855 EW10-SC58 attempt 1 - unsuccessful
water depth 41.0 ft
lat: 47° 35.4221
long: 122° 20.3195
Core was empty - debris.

0910 attempt 2 acceptable
lat: 47° 35.4216
long: 122° 20.3200

0955 EW10-SC59 attempt 1 - successful.
water depth: 46.6
lat: 47° 35.4211
long: 122° 20.4340

3-1-10 S. Fowler

1035 EW10-SC57 attempt 1 successful
water depth: 44.0
lat: 47°35.4091
long 122°20.5095

1115 EW10-SC60 attempt 1 successful
water depth: 46 ft
lat: 47°35.4209
long: 122°20.5474

1200 lunch Break.

1215 EW10-SC61 attempt 1 - successful
water depth: 46.9 ft
lat: 47°35.4292
long: 122°20.6012

1300 EW10-SC63 attempt 1 - successful
water depth: 59.3 ft
lat: 47°35.5047
long: 122°20.6153

1315 motor back to Harbor Island Marina & finish processing

1330 Arrive @ H.I. Marina and offload cores.

3-1-10

03/02/10 R Berg

0745 Arrive at Harbor Island Marina
Weather: Cloudy, ~50s, low wind
Crew: Rick Berg - Windward
David Gillingham } Anchor
Joy Duray
Dale Dickinson } MSS
Bill Jaworski

0800 Depart dock for 1st location

0805 Health & Safety briefing

~~0900~~ RB EW10-SC23

0840 Attempt 1 successful
~~17.5~~ RB 25.5' water depth
47 34.6888 N 122 20.4333 W

0938 EW10-SC27 Attempt 1 successful
36.6' water depth
47 34.7218 N 122 20.4839 W

1025 EW10-SC30 Attempt 1 successful
46.5' water depth
47 34.7681 N 122 20.5157 W

1110 EW10-SC33 Attempt 1 successful
34.4' water depth
47 34.7820 N 122 20.5744 W

1145 Break for lunch

03/02/10 R Berg

1225 EW10-SC29
13.7' water depth
Attempt 1 successful
47 34.7537N 122 20.5811 W

1317 EW10-SC32
40.5' water depth
Attempt 1 successful
47 34.7777 122 20.6173

1400 Arrive at Harbor Island Marina dock. Unload cores.

1430 End of field day.

03/03/10

R Berg

03/03/10 R Berg

0745 Arrive at Harbor Island Marina

0800 Load core tubes on boat
Weather: Cloudy, temp ~50°F
Crew: Rick Berg - Windward
David Gillingham } Anchor
Delaney Paterson
Dale Dickinson } MSS
Bill Jawotski

0817 Depart dock for 1st location

~~0820~~ 23

0825 Health & Safety Briefing
Navigation check
47 35.4295 N 122 20.7621 W

0850 EW10-SC51
72.0' water depth
47 35.2896 N 122 20.7221 W
Attempt 1 successful

0945 EW10-SC101
Attempt 1 unsuccessful
Attempt 2 successful
62.2' water depth
47 35.2424 122 20.7412

3/3/10 R Berg

1015 EW10-SC100
Attempt 1 successful
59.4' water depth
47 34.8212 N 122 20.7434 W
EW10-SC26
1050 55.0' water depth
Attempt 1 successful
47 34.7064 N 122 20.7443 W
1120 Lunch break
1200 EW10-SC13
Attempt 1 successful
51.3' water depth
47 34.5133 N 122 20.5848 W
1240 Depart for HI Marina dock
1255 Arrive at dock. Unload cores
1315 End of field day.

3/3/10

R Berg

3/04/10 R Berg

0745 Arrive at HI Marina dock.
Weather: Cloudy, temp 50s
Crew: Rick Berg - Windward
David Gillingham > Anchor
Delancy Peterson
Dale Dickinson > MSS
Bill Jawerski
0810 Depart dock.
0830 Navigation check
47 35.4297 N 122 20.7620 W
0845 EW10-SC54
20.5' water depth
47 35.3591 N 122 20.5797
Attempt 1 successful
0925 EW10-SC52
41.7' water depth
47 35.3094 N 122 20.5884 W
Attempt 1 successful
1005 EW10-SC50
44.8' water depth
47 35.2726 N 122 20.5933 W
Attempt 1 successful

3/04/10 R Berg

1043 EW10-SC53
60.3' water depth
47 35.3405 N 122 20.6311 W
Attempt 1 successful

1126 EW10-SC48
37.5' water depth
47 35.2034 N 122 20.5883 W
Attempt 1 successful

1200 Depart for dock.

1230 Arrive at HI Marina Dock.
Unload cores.

1250 End of field day.

03/05/10

R Berg

3/05/10 R Berg

0745 Arrive at facility dock
(HI Marina)
Weather: Temp ~50s, overcast
Crew: Rick Berg - Windward
David Gillingham, Anchor
Delaney Peterson
Dale Dickinson, MSS
Bill Jawoiski

0815 Depart dock

0830 Navigation check
47 35.4292N 122 20.7629 W

0900 EW10-SC24
59.0' water depth
47 34.6917N 122 20.5932 W
Attempt 1 successful

0935 EW10-SC25
62.2' water depth
47 34.6997N 122 20.6465 W
Attempt 1 successful

1015 EW10-SC22
62.7' water depth
47 34.6681N 122 20.6983 W
Attempt 1 successful

3/05/10 R Berg

1055 EW10-SC28
60.0' water depth
47 34.7458N 122 20.6598W
Attempt 1 successful
EW10-SC31
1136 59.9' water depth
47 34.7676N 122 20.7128W
Attempt 1 successful
1210 Depart for dock. Lunch.
1245 Arrive at dock. Unload cores.
1315 End of field day.

3/05/10
R Berg

3/08/10 M. Yarnes

0745 Arrive @ ITI Marina dock
Weather: ~40's overcast to clearing
p. cloudy skies
Crew: David Gillingham } anchor
Mike Yarnes-WW Dino Marshilonis
Dale Dickinson } MSS
Bill Jaworski
0805 Depart Dock
0825 Navigation check
47 35.4293N 122 20.7617W
0850 EW10-SC16
my ~~[illegible]~~ Depth water 52.8 ft
47 34.5631N 122 20.6338W
Attempt 1 successful
0945 EW10-SC14
60.0 ft. water depth
47 34.5533N 122 20.5912W
Attempt my 1 Successful
1030 EW10-SC17
54.0 ft. water depth
47 34.5673N 122 20.6887W
Attempt 1 Successful
Note: All water depth for day DTM do not take into account tide change. Must subtract MLLW tidal change! Simply reflect lead line depths.

1135 EW10 – SC09
46.3 ft. water depth
47 34.4206N 122 20.5875W
Attempt 1 Successful
1220 Break for lunch
1250 EW10 – SC34
62.0 ft water depth
47 34.8218N 122 20.6839W
Attempt 1 Successful
1330 EW10 – SC36
58.3 ft water depth
47 34.8914N 122 20.6410W
Attempt 1 Successful
1350 EW10 – SC39
60.7 ft water depth
47 34.9404N 122 20.6980W
Attempt 1 Successful
1400 Depart for dock
1420 Arrive @ dock – unload cores
~~1500~~ 1450 End of day

M Yarnes 3/8/10

3/9/10 M Yarnes
0740 Arrive @ Harbor [redacted] Island
Mooring dock
Weather: P. cloudy 30's – 40's
Crew: Mike Yarnes MW
Dino Marshilonis
Dale Dickinson → MSS
Bill Jaworski
David Gillingham
Anchor
0810 Depart from dock
0832 Navigation check
47 35.4295N 122 20.7618W
0845 EW10 – SC40
~~63.9 ft.~~ water depth 63.9 ft
47 35.0035N 122 20.6925W
Attempt 1 Successful
0920 EW10 – SC42 – 1st attempt
~~63.7 ft~~ for water depth 64.0 ft
Attempt 1 unsuccessful – lat long not recorded – moved ~ 30 ft & tried 2nd attempt
0950 EW10 – SC42 2nd Attempt
~~63.7 ft~~ water depth 63.7 ft
47 35.0575N 122 20.6739W
Attempt 2 Successful

1035 EW10 - SC44
~~[illegible]~~ my 54.5 ft water depth
47 35.1233N 122 20.6794W
1st attempt successful

1115 EW10 - SC47
~~54.7 ft~~ water depth 63.7 ft
my ~~[illegible]~~ 47 35.1992N 122 20.6635W
1st Attempt successful

1230 EW10 - SC49
63.7 ft. water depth
47 35.2525N 122 20.6690W
1st Attempt successful

1310 EW10 - SC56
64.0 ft water depth
47 35.3700N 122 20.6849W
1st attempt successful

1350 EW10 - SC62
61.7 ft water depth
47 35.4655N 122 20.7329W
1st attempt successful

1415 Arrive @ boat dock - unload cores
1500 Leave from marina

3/9/10

M. Yarnes

Lab Log Book

2/22/10 Day 1 of EW Subsurface sampling effort.

0930 Meet at ARI to set up core processing area

Crew: Windward - Marina Mitchell
Chelsea Lorenz
Bert Bergquist
Anchor - Leslie McKee
Amy Olson
AMEC - Nik Bacher

1000 After setting up processing area, we had a health & safety meeting.

1105 Chelsea and Marina headed back to Windward to pick up more supplies. The plan is to pick up cores at about noon at the Jack Perry Memorial Access Area.

1110 Spoke to Brenda with USACE and she would like

to bring Ravi to the processing area later today to view the core processing procedure.

1121 Clean Harbors dropped off two empty drums for waste sediment.

1126 David called from the boat. They have the core from locations C8 and are on station to collect at locations ~~C6~~, SC6. They would like Nik and Leslie to pick up cores in an hour.

1250 Started decanning bowls and spoons

1325 Nik, Amy, and Leslie arrived with cores

1338 Set up to open core

1349 Nik started cutting open EW10-SC08

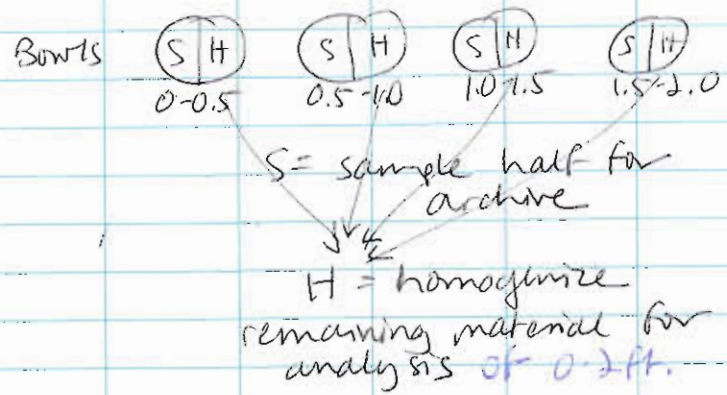
1406 Leslie started logging core

1419 Chelsea & Marina starting to sample from core. Plan to collect all of sediment from each 0.5 ft length of the first 2 ft into a bowl. Then

2/22/10 B. Berggquist

Sample ½ the volume for the archive for each of the four 0.5 ft sections. Then homogenize all together for the analyte sample (0-2 ft)

0 ⟶ 2 ft length



1447 Core logging completed. Completed sampling 0-2 ft section
Core divided as follows:
0-2, 2-4, 4-6, 6-8, 8-9.4, 9.4-11, 11-12.5

1519 Complete sampling 2-4 ft section

1540 Complete sampling 4-6 ft section

1540 Ravi Sanga and Brenda Bachman arrived at lab

to provide oversight and observe processing (left at 16:45)

1550 complete sampling remainder of SC08

1611 Cut top off SC06 and start logging core

1632 Start sampling core

1713 Finish sampling 0-2 ft
Core divided as follows:
0-2, 2-4, 4-6, 6-7.4, 7.4-10, 10-11.4

1734 Finish sampling 2-4 ft and start 4-6 ft.

~~1~~1745 Finish sampling 4-6 start remainder of sample collection
Cores from SC03 and SC04 were collected earlier and delivered to the lab. They are being stored in ARI's walk in cooler, and will be processed in the morning.

1755 Finish sampling, store samples in cooler and clean up.

1815 Done for the day

Brit Bergquist
2/22/10

0805 Arrive at lab and start setting up.
Field crew: Windward Marina Mitchell
Chelsea Lorenz
Brit Bergquist
Anchor QEA: Leslie McKee
Amy Olson
AMEC Geomatrix: Nik Bacher
Chris Brown

0820 Health & safety briefing

0835 Started cutting open SC03. Yesterday, we spoke with Susie and she okd the use of DI and Alconox for deconning.

0840 SC03 penetrated only about 7 ft. This was the best that could be done at this location based on probing the area and finding debris, hard packed surface. Some winnowing in core at 3-4 ft. Have material down to 5 ft but core catcher is at that depth so we may not be able to sample the same volume as in other

2/23/10 B. Bergquist

depths.

0856 Begin sampling 0-2 ft section

0915 Finish 0-2 ft and start 0-4 ft section.

0929 Finish 0-4 ft section and start 4-5.5 ft section.

0942 Finished with SC03.

0950 Cut open core SC04. Percent recovery in this core and SC03 was < 75% (74.5 in SC03 and 59% in SC04). This was because of hard substrate in these areas

1000 Start logging core

1005 Start sampling at 0-2 ft depth

1017 Finish 0-2 ft and start 2-4 ft.

~~Co~~ Sample depths for both SC03 and SC04: 0-2, 2-4, 4-4.5

Collected MS/MSD for PCBs on 2-4 ft section

1037 Finish 2-4 ft, start on 4-4.5 ft

1052 Finish with SC04.

Mike: Chris are going to pick up cores.

Lunch break.

1158 Return from lunch. Box van arrived with 2 more cores, SC07 and SC11.

1215 Cut open SC07. Recovered core length is only 2.85 ft and very gravelly. We will attempt again with the vibracorer to see if we can get a better sample. Leslie said they couldn't collect a Geochronology core there either. Called Susie to make sure the revised locations were sent to boat crew. We will label this sample SC07A and may not analyze it if we collect a better core ~~at~~ w/ the vibracorer.

1222 Begin sampling 0-2 ft section. Core length is only 2.5 ft, so only the 0-2 ft section will be analyzed. Below that, the 2.0-2.5 ft section will be archived but not analyzed.

2/23/2010 B. Bergquist

1252 Done with SC07A.
Ravi called with question about sampling process for archive sample vs sample for analysis.

1305 Cut open SC11 10.25ft recovery on deck
Shelby tubes will be collected for geotech at 3-3.5, 5-5.5 and 6-8 to represent different stratigraphic layers.

1318 Start sampling 0-2 ft interval
Intervals = 0-2, 2-4, 4-6, 6-8, 8-9.9
Stratigraphic break at 4.8, so 4.5-4.8 sampled, then 4.8-5.5.

1339 Finish 0-2 ft, start 2-4 ft

1356 Finish 2-4 ft, start 4-6 ft.

1410 Finish 4-6, sample remainder of core (6-8 and 8-9.9)

1415 Finish with core. Note: Chris went to pick up remaining core (SC05). The back crew was not able to sample SC01 and SC02 because of substrate

14:45 Van arrived with SC05.
Brenda Bachman (US.ACE)

arrived for oversight

1500 cut core SC05 open and started logging core
6.05 ft recovery

1515 Start sampling 0-2 ft section
Sample intervals for core:
0-2, 2-4, 4-5.5
Shelby tubes placed at 2.1 and 4.9

1528 Finish 0-2 ft section and start on 2-4 ft.

1544 Finish 2-4 ft section and start 4-5.5 ft section

1550 Sampling completed with SC05
No more cores to process.
Vibracoring will start tomorrow.
Clean up and decon equipment to prepare for tomorrow.

1625 Done w/ decon.
Discuss plan for tomorrow
End of sampling day

B Bergquist

2/24/10

0910 Chelsea, Manna: Berit arrive at ARI and begin setting up for vibracore processing, and preparing COCs for samples collected on 2/22 and 2/23.
A rinsate blank was collected yesterday at 1447.

1020 Leslie and Amy arrived.
Bill didn't drop off the core cutter so they will need to pick it up from his car at Harbor Island once the cores are ready to be picked up.

1035 COC forms finished by Manna. Manna and Chelsea start packing samples into coolers for delivery to ARI today. Only archived samples will be handed over today.

1145 SC03, SC04, SC06, SC08, SC11, SC07A — Archived samples handed over to ARI. Also, rinsate blanks and Shelby tubes were handed over to ARI

1240 Leslie & Amy are picking up cores at Jack Perry Access.
3 cores were collected this morning.

1335 Leslie & Amy are just leaving Harbor Island Manna where they picked up the table & saw for cutting the cores.

1355 Cores arrive - SC35, SC38 and SC41.
Will start processing SC35
Set up cutting table.

1423 Health & Safety meeting.
Processing crew:
Windward: Berit Bergquist, Manna Mitchell, Chelsea Lorenz
Anchor: Leslie McKee, Amy Olson

1433 Leslie started cutting section A
1438 " section B
1445 " section C
1457 SC35 opened on table for logging/sampling
1502 Start collecting SC35 samples

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1502 cont'd Void in sediment core between 8 and 8.2 ft. Core intervals as follows: 0-2, 2-4, 4-6, 6-8.5, 8.5-10.1, 10.8-12.8. ~~8.5-10 10-12~~

Called Susie to check in with what to do if the last 2 ft go over 2 ft. We decided if it's more than 1 ft, to start another interval (i.e. 10-12, 12-13.5) but less than 1 ft to keep with the 10-12 ft interval (i.e. 10-12.5).

1605 Done sampling SC35. Leslie needs to pick up cores (SC 19, 20, 21 and 45) so we are done processing for today.

1615 Clean up lab and prepare COC forms for tomorrow.

1720 Cores SC19, 20, 21 and 45 delivered to lab and stored.

Done for the day

Bert Bergquist

2/25/10

0815 Arrive at lab and start setting up. Health & safety briefing.

0824 Start cutting open SC38

0839 Core tube opened and ready for logging.

0850 Start sampling core. Method C. Sampling intervals = 0-1, 1-2, 2-3, 3-4, 4-6, 6-8, 8-9.6, 9.6-11, 11-12.9.

Field crew: Windward - Chelsea Lorenz
Bert Bergquist
Anchor: Wes MacDonald
Leslie McKee
Amy Olson

0955 Finish up with SC38 and dispose of waste into drums.

1003 Start cutting open SC41. Method C

1015 Core opened and start logging and sampling.

1045 Native reached at about 0.6 ft. Brenda Buchman arrived (USACE - oversight). There is a stratigraphic boundary at

2/25/10 B. Bergquist

1.0 ft, but sampling from 0.6 to 1 ft would not provide enough sediment, and then we would be dividing the core into 3 samples in the top 2 ft rather than 2 (0-0.6, 0.6-1.0 and 1.0-2.0). After discussing this with Susie, Brenda, and Leslie, we decided to sample from 0-0.6, and 0.6-2 ft. Intervals for this core = 0-0.6, 0.6-2, 2-3.4, 3.4-4, 4-5.9, 5.9-8, 8-10, 10-12.2, 12.2-13.

1130 Finish sampling SC41. Decon and clean core tubes. Break for lunch.

1215 Cut open SC45, the last Method C sample.

1245 Start collecting samples from SC45. Intervals = 0-1, 1-1.7, 1.7-3, 3-4, 4-6, 6-8, 8-10, 10-12, 12-13.3

1315 Done sampling SC45

1330 Cut open SC19. We will collect a field duplicate for this sample

because it is a pesticide analysis core. Method A sample.

1345 Start sampling SC19 BB and FD. Intervals = 0-2.5, 2.5-4, 4-6, 6-8, 8-10, 10-13

1437 Finish sampling ~~SC45~~ SC19 BB.

1450 Start cutting open SC21.

1510 Start logging and sampling SC21.

1602 Delivered samples to ARI for chemistry for 3, 4, 5, 6, 8, 11, 35, 41, and 45. Temperature on the two coolers was 9.8 and 4.2. Samples were warmer than 4.0 on some of the samples because they were recently sampled and temperature was not able to cool down to 4.0 by the time of delivery. Samples are kept on ice or refrigerated immediately after sampling.

1605 Finished sampling SC21. Clean up and decon. Done for day BB

2/26/10 B. Bergquist

0815 Health & safety briefing.
Field Crew: Delaney Peterson (Anchor)
Joy Ounay (Anchor)
Amy Olson (Anchor)
Chelsea Lorenz (Windward)
Benir Bergquist (Windward)
Start with SC20
0825 Start cutting open SC20
0838 Finish cutting SC20; Start opening and logging the core.
0850 This core was collected within the Phase 1 removal action area with the sand cap, so we will start sampling below the sand layer, according to the QAPP. Sand layer goes to 0.4 ft.
0919 Start sampling core.
Intervals = 0.4-2.4, 2.4-4.4, 4.4-6.4, 6.4-8.5, 8.5-10.5, 10.5-12.5
Shelby tubes were collected at 5.5 ft and 10.5 ft.
1005 Finish sampling SC20.
Start cutting SC37. Will collect a field duplicate for this sample (TBT location).

1047 Start sampling SC37.
Intervals = 0-2, 2-3.9, 3.9-6, 6-8, 8-10, 10-12.9.
Void space between 3.9 and 4 ft.
1133 Finish SC37, clean up & decon.
Break for lunch.
12:17 Prep to cut SC43, and start cutting core.
1309 Finish logging core and start sampling. Intervals = 0-1.3, 1.3-4, 4-6, 6-8, 8-10, 10-11.5
1346 Sample Shelby tubes. Finish sampling core.
1350 Start cutting SC46
1405 Start sampling SC46
Intervals: 0-2.3, 2.3-4, 4-
1446 Boat crew arrived with cores collected today at SC7, SC10, SC12, SC15 and SC18.
1459 End sampling SC46
1515 Crew is working on replacing saw blade on core cutter. Printing out COC forms for all samples collected to date.

2/26/10 B. Bergquist

1541 Cut open SC55
Large void in core between 7.8 and about 8.6 ft.
1610 Start sampling core.
1640 Finish sampling core.
1645 Deliver samples to ARI.
Clean up and decon equipment.
1655 Done for the day.

B. Bergquist

3/1/10
0815 Arrive at ARI and have brief Health & Safety meeting.
Field Crew: Chelsea Lorenz, Mara Irby, Benit Bergquist — Windward
Leslie McKee, Delaney Peterson — Anchor
0830 Start cutting open SC10.
0900 Start sampling SC10.
0950 Finish with SC10 and start cutting open SC12.
Intervals for SC10 were 0-2.4, 2.4-4, 4-6, 6-8, 8-10, 10-11.3.
1000 Start logging SC12
1006 Start sampling SC12
Native reached at 3.1 ft, so intervals for analysis are 0-2, 2-3.1 ft. The next interval for archive will be 3.1 to 4 ft, then below 4. If this needs to be analyzed then we would decide whether to analyze 3.1-6 or 3.4-4 and 4-6.
Change of plans - talked to Susie

and she would like to sample 3.1-5, etc.
Final intervals = 0-2, 2-3.1, 3.1-5, 5-7, 7-9, 9-12.8

1035 Finish sampling SC12
1041 Start cutting open SC15
1057 Start sampling SC15
Intervals = 0-2.3, 2.3-4, 4-6, 6-8, 8-10, 10-12, 12-13.7
1127 Finish sampling SC15 and clean up.
1145 Break for lunch
1225 Cut open SC7B. This will be a Method B core.
1252 Start sampling SC7B. Halve at 2.3 ft. Talked to Susie and decided to keep the archive at 0.5 ft and the analysis at 0-2.3 ft. For the interval between 2.0 and 2.5, we will collect half the core from 2.0 to 2.5 for archive and for the other half from 2.0 to 2.3 will be homogenized

into the bowl for the upper interval and 2.3 to 2.5 into the bowl for the lower interval.
Clean Harbors delivered 2 empty drums and will pick up full ones tomorrow at 8 AM.

1355 Finish sampling SC7B
Intervals = 0-2.3, 2.3-4, 4-6, 6-8, 8-10, 10-12.2
1410 Open core ~~SC18~~ SC18.
1418 Start sampling SC18
1453 Finish sampling SC18
Intervals = 0-2, 2-4, 4-6, 6-8, 8-10, 10-12.9
Clean up
Cores arrived from sampling today: SC 57, 58, 59, 60 ~~and~~ 61, and 63.
1520 Done for day

B. Bergquist

3/2/10 B. Bergquist

0805 Arrive at lab and have a health & safety meeting.

0820 Start cutting SC58

Field Crew: Brit Bergquist, Mara Irby, Sarah Fowler, Leslie McKee, Nathan Siccorsy — Windward; Anchor

0847 Start sampling SC58 Intervals = 0-1.8, 1.8-4, 4-6, 6-8, 8-10, 10-12

0924 Finish sampling SC58

0930 Next sample, SC59, will be sampled for geotechnical parameters. Start cutting SC59.

0943 Cut open SC59 and start logging core.

0950 Start sampling SC59

Native at 0.25 ft

Intervals = 0-2, 2-4, 4-6, 6-8, 8-10, 10-12.9

Shelby tubes at 2 and 3.5 ft.

1040 Finish sampling SC59

1055 Start cutting SC57

1105 Cut open core and start logging.

3/2/10 B. Bergquist

1110 Start sampling SC57

Intervals = 0-2, 2-4, 4-6, 6-8, 8-10, 10-12.8

Native at 0.25 ft

1147 Finish sampling SC57

Break for lunch

1240 Starting cutting SC60.

1250 Cut open SC60 and start logging the core

1255 Start sampling SC60

Native at 0.8 ft. Talked to Susie and decided to sample from 0 - 0.8 and then 2 ft after that, so: 0-0.8, 0.8-3, 3-5, 5-7, 7-9, 9-11.9

1357 Finish sampling SC60.

Volume in the 0-0.8 ft section was low, so the archive jar was filled only part way. Talked to Marina and she recommended priority for the grain size, then PCB and metals jars. She also noted that SC202-0-2 and SC202-2-3.9 were not on COC forms

3/2/10 B. Bergquist

from 2-26-10. It was on the draft electronic copy, so must not have been printed out on the final. We will make sure to check the draft against the final forms when they are printed.

1401 Start cutting SC61

1415 Cut open SC61 and start logging. Strong H_2S odor when core opened

1420 Start sampling SC61
Intervals = 0-1, 1-3, 3-5, 5-7, 7-9
9-11, 11-12.7
PID hits throughout the core up to 155 ppm, as recorded on sediment core logs.

1519 Finish sampling SC61

1540 Cut open SC63 and start logging core.

1550 Shelby tubes at 1, 2 and 3 ft.
Start sampling SC63
Intervals = 0-2, 2-4, 4-6, 6-8,
8-10, 10-12.5. QC samples/COCs.

1700 Finish sampling

1710 Finish QC check of samples against COC forms

1720 Deliver samples to ARI
Done for the day

B. Bergquist
3/2/10

3/3/10 B. Bergquist

0810 Arrive at AKI and have a brief Health & Safety Meeting.

Field Crew: Bert Bergquist, Mara Irby, Sarah Fowler (Windward); Leslie McKee, Nathan Siccorsy (Anchor)

0835 Start cutting SC23

0842 Open core and start logging.

0850 Start sampling SC23

0.4 to 1.3 for native depth.

PID hits from 0.4 to 4 ft (up to 68 ppm)

Sheen also present (light) in this portion of the core. @ 1.3 ft.

0947 Finish sampling core SC23

1010 Start cutting open SC27

Intervals for SC23 were - 0-1.3, 1.3-3.2, 3.2-5, 5-7, 7-9, 9-11, 11-12.9.

1020 Cut open and start logging SC27.

1030 Start sampling SC27

PID hits at 0-8 ft w/ maximum (36 ppm) at about 1.8 ft.

Intervals = 0-2, 2-4, 4-6, 6-7.7, 7.7-10, 10-12.5

1112 Finish sampling SC27

1123 Start cutting SC30

1133 Cut open and start logging SC30

Geotechnical parameters will be analyzed on this core.

1140 Start sampling SC30. Will collect a field duplicate for this sample.

Shelby tubes @ ~~2.1~~ 2.0, ~~6.1~~ 6.0 (WL) and 10.8.

Only enough sample for 1 jar of archive sediment in top interval (0-2 ft).

Intervals = 0-2, 2-4, 4-6, 6-~~8.7~~ 8.8 BB, 8-9.7, ~~8.7-9.7~~ BB, and ~~9.7-12.5~~ 9.7-12 BB, 12-~~13.5~~ 13.2 BB

1245 Finish sampling SC30.

Break for lunch.

1335 Box van arrived with cores sampled today: 51, 101, 100, 26 and 13

1359 Cut open SC29 and start logging sample.

1415 Start sampling SC29

Intervals = 0-2, 2-3.9, 3.9-6.4, 6.4-8, 8-9.7, 9.7-11.7

PID hits from 0 to ~5.5 ft

Maximum hit = 100 ppm @ 2.3 ft.

3/3/10 B. Bergquist

1500 Finish sampling SC29
Fill out COC for Geotech Shelby cores and deliver to ART.

1520 Start cutting SC32. Core tube is slightly bent. Slight delay because of adjustment needed to saw blade.

1545 Cut open SC32 and start logging sample. Will collect a Field duplicate for this core.

1550 Intervals = 0-2, 2-4, 4-6, 6-8.9, 8.9-10.9, 10.9-12.9
PID unit is reading abnormally high (off scale at >5000 ppm) when exposed to ably air, so called MiniRae company for technical assistance. They recommended cleaning with methanol and recalibrating. Decided to keep sampling because this will take some time while sample is sitting open

1630 Cleaned PID with methanol, and will let dry overnight.

3/3/10 B. Bergquist

1645 Finished sampling SC32
Clean up area and decon.
Done for the day.

B. Bergquist

3/3/10

3/4/10 B. Bergquist

0805 Arrive at ARI. Have a health & safety meeting.
Field Crew: Bent Bergquist
Chelsea Lorenz
Sarah Fowler
Joy Dunay
Amy Olson

0830 Start cutting open SC33.

0837 Open SC33 and start logging core.
Called Pine Environmental for assistance with PID unit. It is now running on ~~but nee~~ without a constant beep, but now needs to be recalibrated

0900 Successfully calibrated PID unit.
Start sampling SC33.
Intervals = 0-2, 2-3.5, 3.5-5.8, 5.8-6, 6-9.8, 9.8-12, 12-13
Native - 3.5 to 5.8

0915 Finish SC33 and start cutting open SC51

0950 Start sampling SC51
Intervals = 0-2, 2-3.8, 3.8-6, 6-8, 8-10, 10-11.4

3/4/10 B. Bergquist

0950 Two shelby tube samples were collected at 2 and 8.9 ft.

~~0~~1010 Start cutting open SC101. This sample will be analyzed only for TBT.

1026 Open SC101 and start logging.

1030 Start sampling SC101.
Intervals = 0-2.3, 2.3-4, 4-5.9, 5.9-8, 8-10, 10-12.7

1045 Finish sampling core.
Called Susie to ask if samples will also be analyzed for TOC and total solids and she said yes.

1050 Start cutting open SC100.

1100 Start logging and sampling SC100. Another core for TBT only.
Intervals = 0-1.1, 1.1-3, 3-5, 5-7, 7-9, 9-11, 11-13
Native was at 1.1 ft so first sample was collected only within this interval.

1126 Finish sampling SC100.
Clean up and break for lunch.

3/4/10 B. Bergquist

1305 Cut open SC26
1315 Start logging SC26
1330 Start sampling SC26.
Intervals = 0-2.7, 2.7-4, 4-6, 6-8, 8-10, 10-12.6.
1400 Finish sampling SC26.
Collected MS/MSD and dup/trip for grain size for SC26.
1410 Start cutting open SC13
1420 Start logging and sampling SC13.
Intervals = 0-1.6, 1.6-4, 4-6.2, 6.2-8.8, 8.8-11.2
1453 Finish sampling SC13.
Boat crew arrived with cores collected today: 48, 50, 52, 53, and 54
1510 QC samples against COC forms.
Collect sample from drum for TCLP test. Clean Harbors needs analysis before they will pick up drums.
1600 Finish packing and QCing samples.
1605 Deliver samples to ARI,

including the TCLP sample.
On COC, noted only 3 jars for the SC203-0-2 and SC204-0-2 intervals because these were field duplicate samples and there was not enough volume for the archive sample.
1615 Done for the day.

B. Bergquist
3/4/10

B. Bergquist

3/5/10

0805 Arrive at ARI. Start setting up new area for waste drums since we don't know when Clean Harbors will be able to pick up the full ones.

Field crew: Bent Bergquist, Chelsea Lorenz, Sarah Fowler — Windward
Ben Harper, Amy Olson — Anchor

0830 Start cutting open SC48. Need to collect Shelby tubes for this core

0843 Open core and start logging

0850 Start sampling SC48
Intervals = 0-2, 2-4.7, 4.7-6, 6-8, 8-10, 10-12, 12-13.1
Shelby tubes @ 2 and 8.9 ft
Native material @ 4.7 ft
The interval from 2-4.7 was inadvertantly sampled a few inches below 4.7 on one side of the core.

0923 Finish sampling SC48. ~~and~~

0939 Start cutting open SC50.

0945 Open SC50 and start logging core.

0950 Start sampling core
Intervals = 0-1.6, 1.6-4, 4-6, 6-8, 8-10, 10-11.3

1035 Finish sampling SC50

1045 Start cutting open SC52

1105 Start sampling SC52
Intervals = 0-2, 2-4, 4-6, 6-8, 8-10, 10-12
native @ 2 ft.

1130 Finish sampling SC52. Break for lunch.

1230 QC geotech samples against COC and deliver to ARI.

1240 Start cutting SC53.

1300 Start sampling SC53
Intervals = 0-2, 2-3.2, 3.2-5, 5-7, 7-9, 9-11.8.

1325 The interval 0-3.2 was inadvertantly sampled from 0-4 ft, but we were able to collect about of sample left from the 0-3.2 ft interval to archive in case there

3/5/10 B. Bergquist

is a bit from 0-2. Native is between 0 and 3.2 ft. Talked to Susie to agree on this approach

1335 Start cutting open SC54. Boat crew arrived with cores collected today: 31, 24, 25, 22, 28.

1350 Open SC54 and start logging core.

1400 Start sampling SC54. Intervals = 0-2, 2-4, 4-6, 6-8, 8-9.2

1430 Finish sampling SC54. Clean up. QC samples against COC for delivery to ARI.

1445 Delivering all samples collected today to ARI. Samples may not be cold if they were recently sampled. Otherwise all samples are placed immediately in the refrigerator once collected.

1500 Clean up sampling area. Done for the day

B. Bergquist

3/8/10 B. Bergquist

0810 Arrive at ARI and have a health & safety meeting and set up for first sample.

0830 Start cutting open SC31

Field crew: Sarah Fowler, Mary Irby, Ben Bergquist, Leslie McKee, Marisa Lee — wind-ward; Anchor

0840 Cut open SC31 and start logging the core. Core was collected from capped area so will sample below the cap.

0850 Intervals = 0.7-2.7, 2.7-5.3, 5.3-7.3, 7.3-9.3, 9.3-11.3, 11.3-12.3.

0925 Clean Harbors arrived to pick up 5 full drums of sediment.

0943 Start cutting into SC24.

0950 Start logging core

1000 Start sampling SC24. Intervals = 0-2, 2-4.7, 4.7-6, 6-8, 8-10, 10-12, 12.+13.1

1035 Finish sampling SC24 and cut open SC25. This core is

3/8/10 B. Bergquist

from the capped area

1050 Start logging SC25.

1110 Start sampling SC25.
Noted a recent depositional layer about 0.5 ft deep on top of the sand layer. Called Susie to confirm sampling of this. This layer has been recently characterized, so we'll sample below sand cap, per QAPP.
Intervals = 0.8-2.8, 2.8-4.8, 4.8-6.8, 6.8-8.8, 8.8-10.8, 10.8-12.8

1150 Finish sampling SC25

1210 Break for lunch

1245 Start cutting open SC22

1300 Start logging SC22. Will collect shelby tubes for this core, @ 1 ft and 4 ft.
Intervals = 0-1.9, 1.9-4, 4-6, 6-8, 8-10, 10-12.9
This location is within the cap area, but ~~not~~ no sand layer observed in the top layer.

1340 Finish sampling SC22

3/8/10 B. Bergquist

1356 Start cutting SC28

1405 Cut open SC28 and start logging core.

1415 Start sampling SC28. Cap area
Intervals = 1-3, 3-5, 5-6.2, 6.2-8, 8-10, 10-11.7.
Started at 1 ft because this is below the sand cap. The cap layer is about 0.4 ft deep and there is a 0.6 ft layer of deposited material on top of the sand. Sampled 5 to 6.2 ft because of potential petroleum impact.

1500 Finish sampling SC28.
Finished with all 5 cores here at ARI.

1530 Boat crew arrived with cores collected today: 16, 14, 17, 9, 34, 36, 39

1535 Start cutting open SC16

1550 Start sampling SC16
Void in core between 6.2 and 7.1 ft.

Intervals = 0-1.9, 1.9-4, 4-6, 6-8.2

1634 Finish sampling SC16
Clean up processing area.

1645 Done for the day

B. Bergquist

3/8/10

3/9/10

0805 Arrive at ARF. Start setting up and have a health and safety meeting.

Field crew: Bergquist, Mara Irby, Sarah Fowler (Windward); Marisa Lee, Leslie McKee (Anchor)

0830 Start cutting open SC14.

0845 Start sampling SC14. Distinct boundary at 1.2 ft - below that is fill (gravel/sand) to 2.8 ft at native. Tried calling Susie. Think we should do first sample from 0-2.8 for two reasons 1) won't get much sample from 1.2-2.8 ft because of gravel/rocks, and 2) Leslie thinks much of the silt from the top layer has penetrated down through the gravel layer. Susie has not called back so will do these intervals - 0-2.8, 2.8-5.3, 5.3-7.3, 7.3-9.3, 9.3-11.5

3/9/10 B. Bergquist

0855 Shelby tubes at 0.8 and 2.4 ft and 7.5 ft.
0935 Finish sampling SC14.
0950 Start cutting open SC17.
0958 Open and log SC17
1005 start sampling SC17
Intervals = 0-2, 2-4, 4-6, 6-8, 8-10, 10-11.5, 11.5-13
1050 Finish sampling SC17
1100 Start cutting open SC9
1115 Open SC9 and start logging core.
1125 Start sampling SC9
Intervals = 0-2, 2-4, 4-6, ~~6-8~~ 6-7.2, 7.2-9.2, 9.2-11.2, 11.2-12.5
1200 Finish sampling SC9
1205 Clean up and break for lunch
1245 Start cutting open SC34
1305 Start logging core
Native at 2.4 ft. Cap at about 0.2
1315 Start sampling SC34
Intervals = 0.2-2.4, 2.4-3.9, 3.9-6, 6-8, 8-10, 10-12.3 ~~12-13.3~~

3/9/10 B. Bergquist

1355 Finish sampling SC34
1405 Start cutting open SC36
1415 Open and start logging SC36
1435 Start sampling SC36
Also start QCing samples against COC forms for delivery to ARI.
Intervals = 0.9-3, 3-5, 5-7, 7-9, 9-11, 11-12.1
Collected Shelby tube samples
Sand layer (cap) from 0-0.9
1500 Finish sampling core
1525 Boat crew arrived with last set of cores.
1545 Cleanup and deliver samples to ARI.
1600 Done for day

B. Bergquist

3/10/10 B. Bergquist

0805 Arrive at ARI. Health & safety meeting
Crew: Sarah Fowler, Mike Yarnes, Bent Bergquist (Windward), Marisa Lee, Dino Marshalonis, Leslie McKee (Anchor)
0815 Start cutting open SC39
0830 Start logging SC39
0845 Brenda Sachman (USACE) arrived.
0850 Start sampling SC39. Intervals = 0-2-2-3.4, 3.4-5.4, 5.4-8, 8-10, 10-12.8
0925 Finish sampling SC39
0935 Start cutting open SC40.
1000 Start sampling SC40. Intervals = 0-1, 1-4, 4-6.8, 6.8-8, 8-10, 10-12.9
1045 Start cutting open SC42
1115 Start sampling SC42. Intervals = 0-2, 2-4, 4-5.5, 5.5-8, 8-10, 10-12, 12-13.4
1200 Finish sampling SC42. Clean up and break for lunch.
1255 Start cutting SC44
1320 Start sampling SC44
Intervals = 0-2, 2-4, 4-6, 6-8, 8-10 10-12, 12-13.2
1400 Finish sampling SC44 and cut open SC47.

1425 Start sampling SC47
1500 Finish SC47. Intervals = 0-2, 2-3.8, 3.8-6, 6-8, 8-10, 10-11.1
1520 Cut open SC49
1540 Start sampling SC49
Intervals = ~~0-2, 2-3.5~~ BS 0-1.6, 1.6-4, 4-6, 6-8, 8-10, 10-12, 12-13.1
1615 Finish sampling SC49
1630 Clean up. Done for the day.

B. Bergquist

3/10/10

3/11/10 B. Bergquist

0830 Health & safety meeting.
0840 Start cutting open SC56. Fieldcrew: David Gillingham, Leslie McKee, Marisa Lee (Anchor), Bert Bergquist, Mara Irby, Sarah Fowler (Windward).
0855 Start sampling SC56. Intervals = 0-2, 2-4, 4-6, 6-8
0920 Finish sampling SC56.
0935 Start cutting open last core - SC62.
0950 Start sampling SC56. Intervals = 0-2, 2-3.3, 3.3-5.4, 5.4-7, 7-9.5, 9.5-11, 11-12.3
1025 Finish sampling SC56.
Start cleaning up lab and taking down tables, etc.
1100 QC samples against COC forms
1120 Leslie, David & Marisa leave.
1150 Finish QC and deliver samples to ARI.
1200 Done sampling for the project

B. Bergquist

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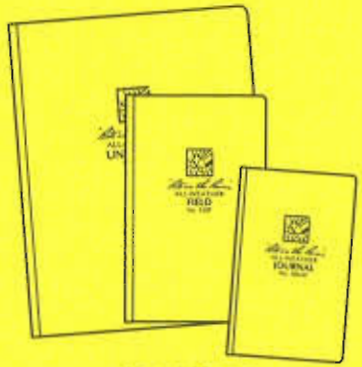
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FIELD FORMS

Mudmole™ Bore Log

Project: East Waterway Coring (Feb 2010) **Station:** SC06

Project No: 12235.002 **Position:** NAD83 WA N

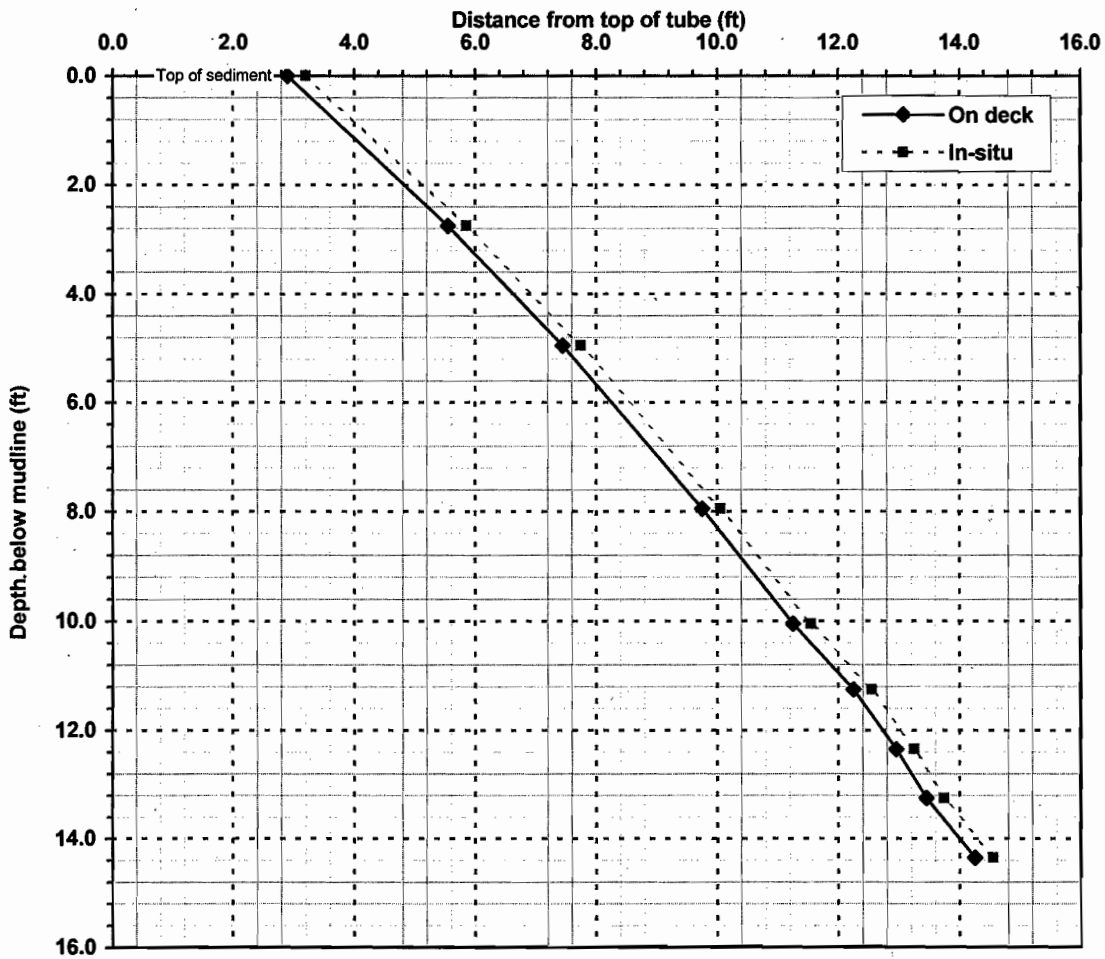
Collected by: GSM 212536 Northing

Date: 2/22/2010 **Time:** 11:47 1267401 Easting

Water depth: 36.3 ft **Mudline:** -27.4 ft MLLW (estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 14.35 ft/ On deck recovery 11.65 ft = 81% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-2.75	2.65	96%
2.75-4.95	1.9	86%
4.95-7.95	2.3	77%
7.95-10.05	1.5	71%
10.05-11.25	1	83%
11.25-12.35	0.7	64%
12.35-13.25	0.5	56%
13.25-14.35	0.8	73%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	2.9
1	3.86
2	4.83
3	5.77
4	6.63
5	7.49
6	8.26
7	9.02
8	9.79
9	10.50
10	11.21
11	12.04
12	12.73
13	13.31
14	14.00
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

AMEC Geomatrix
3500 188th St.SW, Suite 600
Lynnwood, WA 98043

(425) 921-4000
fax (425) 921-4040

AMEC/Geomatrix MudMole Bore Log

[redacted]

Collection Information

Date: 2/22/10

Project: East Recorder: RHG

Station Name: EW-6/SCØ6

Tube Length (ft): 14.55

Water Depth (ft): 36.3 Time: 1147

Est. Tide Height (ft) 8.9 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing 212536

Easting 1267401

On Deck Top of Sediment ~~3.0~~ 2.9 Corrected in lab/NB

Comments: 36 ft w Depth light silt no debris

Penetration Tape Reading	Recovery Tape Reading	Comments
11.8	11.9	
9.6	10.0	
6.6	7.7	
4.5	6.2	
3.3	5.2	
2.2	4.5	
1.3	4.0	
0.2	3.2	

Geomatrix Consultants, Inc.
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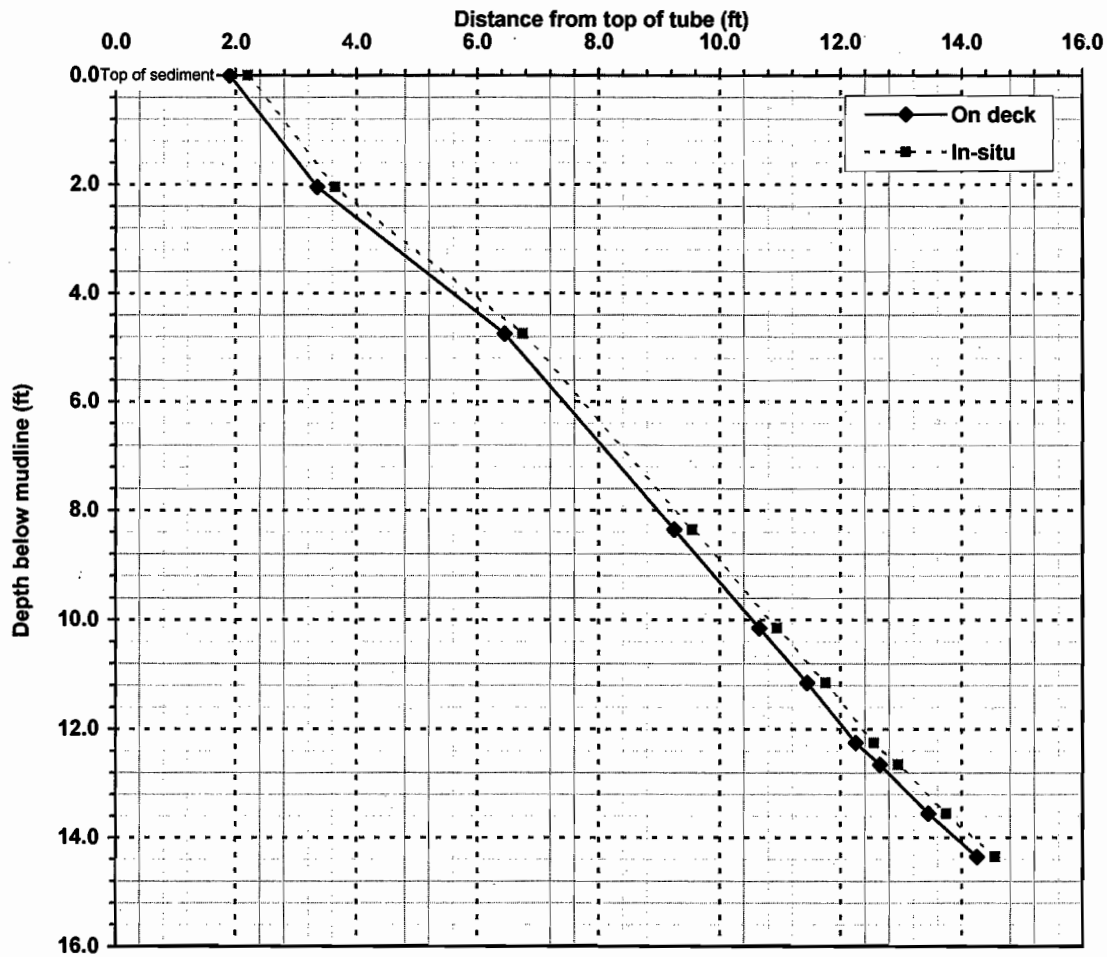
Lynnwood, WA 98037
(425) 921-4000

Mudmole™ Bore Log

Project:	East Waterway Coring (Feb 2010)	**Station:**	SC08
Project No:	12235.002	**Position:**	NAD83 — WA N
Collected by:	GSM		212848.6 — Northing
Date:	2/22/2010	**Time:**	10:02 — 1267533.5 — Easting
Water depth:	45.4 ft	**Mudline:**	-34.9 ft MLLW (estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 14.35 ft/ On deck recovery 12.65 ft = 88% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-2.05	1.45	71%
2.05-4.75	3.1	115%
4.75-8.35	2.8	78%
8.35-10.15	1.4	78%
10.15-11.15	0.8	80%
11.15-12.25	0.8	73%
12.25-12.65	0.4	100%
12.65-13.55	0.8	89%
13.55-14.35	0.8	100%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	1.9
1	2.61
2	3.31
3	4.44
4	5.59
5	6.64
6	7.42
7	8.20
8	8.98
9	9.76
10	10.53
11	11.33
12	12.07
13	12.96
14	13.90
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

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fax (425) 921-4040

AMEC/Geomatrix MudMole Bore Log

[redacted]

Collection Information

Date: 2/22/10

Project: East W. Recorder: RHG

Station Name: EW 8/SC08

Tube Length (ft): 14.55

Water Depth (ft): 45.4 Time: 1002

Est. Tide Height (ft) 10.5 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing 212848.6 N

Easting 1267533.5 W

On Deck Top of Sediment ~~3.04~~ 1.9 corrected in lab NB

Comments: 45.0ft silty bottom

Penetration Tape Reading	Recovery Tape Reading	Comments
12.5	13.1	
9.8	10.0	
6.2	7.2	
4.4	5.8	
3.4	5.0	
2.3	4.2	
1.9	3.8	
1.0	3.0	
0.2	2.2	

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ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: D. Gillingham
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC08
Attempt No. 1 of 1
Date: 2/22/10
Logged By: DG
Horizontal Datum: NAD 83 WN SP ft

Field Collection Coordinates:
Lat/Northing: 212848
Long/Easting: 1267533

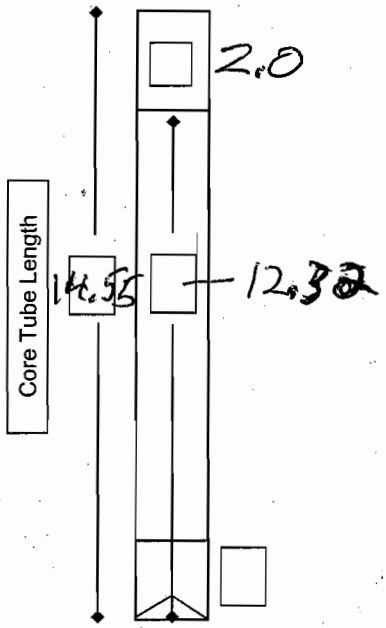
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 45.4

B. Water Level Measurements
Time: 1000
Height: 10.3
Source: ~~Nobletec Navigation~~ Pro-Tides

C. Mudline Elevation
35.1

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 14.55
Drive Penetration: 14.32
Headspace Measurement: 2.0
Recovery Measurement: 12.32
Recovery Percentage: 86
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration till Bottom
Bottom 3' stiffer, slower
full penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

fine to medium gray sand in nose

Notes:

David Gillingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC06
Attempt No. 1 of 1
Date: 2/22/10
Logged By: DG
Horizontal Datum: nad 83 WaN usft.

Field Collection Coordinates:
Lat/Northing: 212536
Long/Easting: 1267401

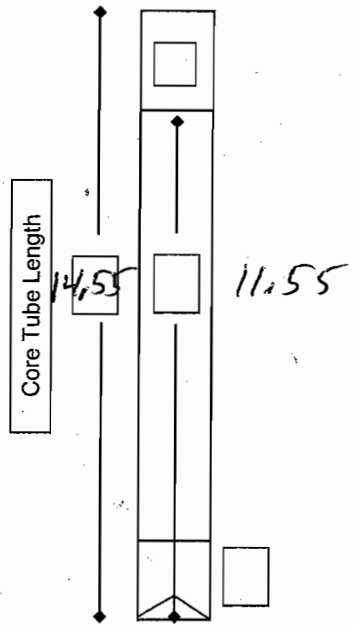
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 36.3

B. Water Level Measurements
Time: 1145
Height: 8.6
Source: ~~Nobletec Navigation~~ ProTides

C. Mudline Elevation
27.7

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 14.55
Drive Penetration: 14.35
Headspace Measurement: 3.0
Recovery Measurement: ~~11.35~~ 11.55
Recovery Percentage: 80.5
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration for the top 10', stiffer penetration for the last several ft.
full penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

fine sand in nose

Notes:

David Cullingham

ANCHOR QEA

Sediment Core Collection Log

Page 1 of 1

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: EW10 SC03
Attempt No. 1 of 1
Date: 2/22/10
Logged By: DG
Horizontal Datum:

Field Collection Coordinates:
Lat/Northing: 212030
Long/Easting: 1267032

station 12' south of these coordinates

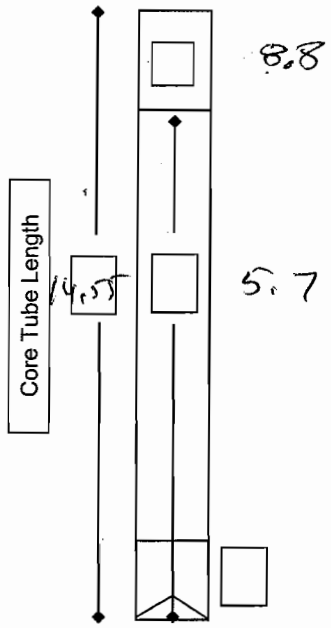
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 11.5

B. Water Level Measurements
Time: 1345
Height: 4.8
Source: Nobletec Navigation

C. Mudline Elevation
6.7

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 14.5
Drive Penetration: 7.65
Headspace Measurement: 8.8
Recovery Measurement: 5.7
Recovery Percentage: 74.5
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
Stiff drive the entire way last two ft. very slow
Called refusal

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Bridge N.

~~21~~ yds

W shore 28 yds X 102 yds shore E (OHW) range finder distance to 4 sides.

42 yds
Bridge S.

Notes:
GPS in and out. closest confirmation was 15' from target. were approx 15' downstream of first Bridge station

David Cullingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: EW10 SA04
Attempt No. 1 of 1
Date: 2/22/10
Logged By: DG
Horizontal Datum: —

Field Collection Coordinates:
Lat/Northing: NA
Long/Easting: NA

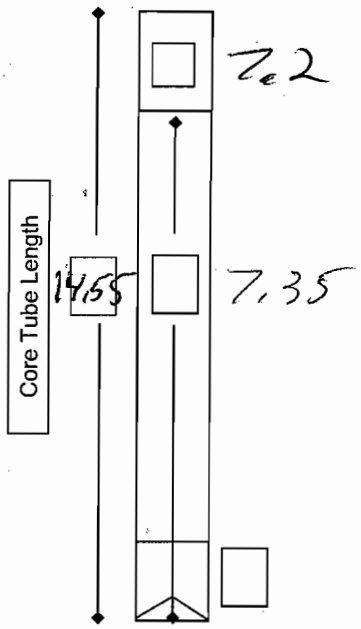
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 5.5

B. Water Level Measurements
Time: 1445
Height: 2.9
Source: Nobletec Navigation

C. Mudline Elevation
2.6

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 14.55
Drive Penetration: 12.45
Headspace Measurement: 7.2
Recovery Measurement: 7.33
Recovery Percentage: 59%
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
first 4' easy
4-6 ft stiffer
last foot very hard - Low recovery in last foot - called refusal

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

coarse speckled gray Sand in nose

6 yd S. of Bridge 24 yard from shore (DHW)

Notes:
under Bridge, GPS not available. used range finder (see above) to locate location

David Gillespie

Mudmole™ Bore Log

Project: East Waterway Coring (Feb 2010) **Station:** SC05

Project No: 12235.002 **Position:** NAD83 WA N

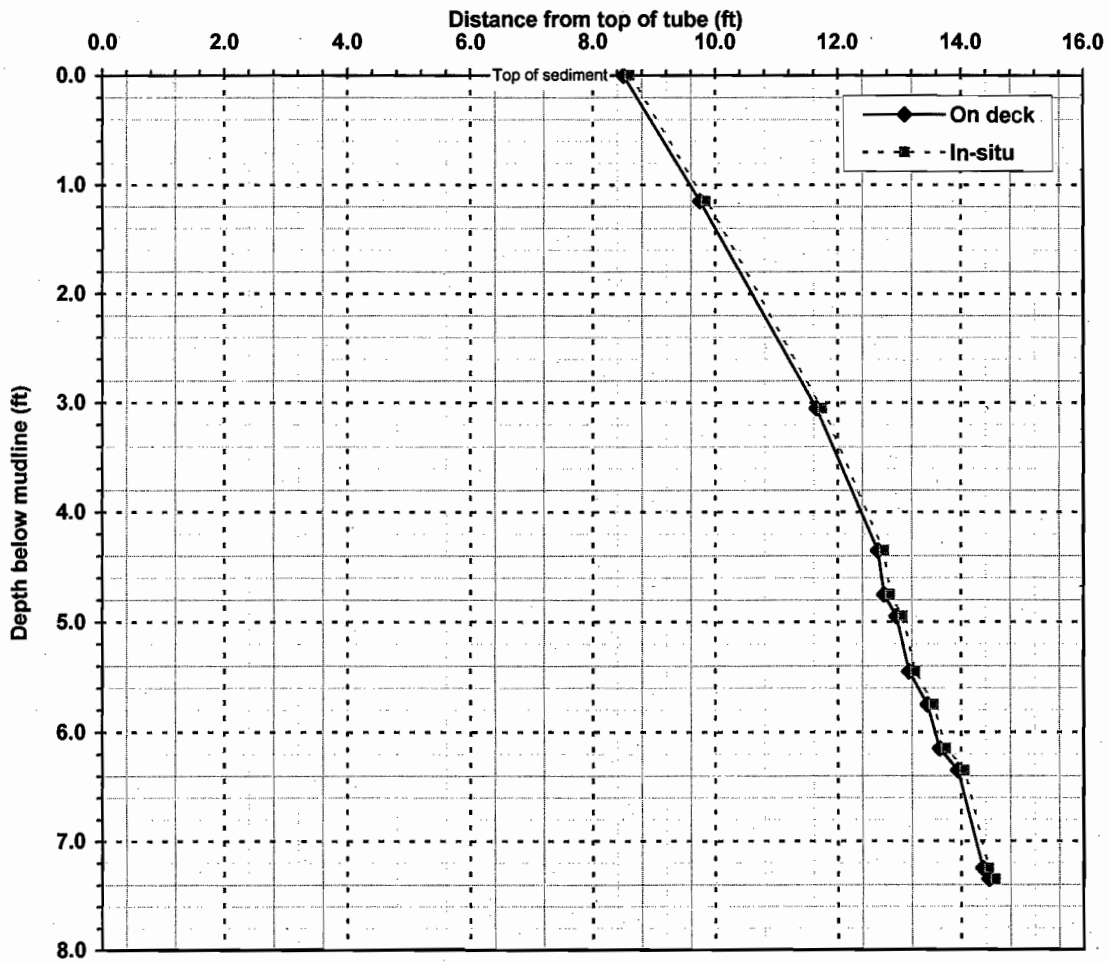
Collected by: GSM 212245 Northing

Date: 2/23/2010 **Time:** 11:55 1267235 Easting

Water depth: 21.2 ft **Mudline:** -11.5 ft MLLW (estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 7.35 ft/ On deck recovery 6.05 ft = 82% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-1.15	1.25	109%
1.15-3.05	1.9	100%
3.05-4.35	1	77%
4.35-4.75	0.1	25%
4.75-4.95	0.2	100%
4.95-5.45	0.2	40%
5.45-5.75	0.3	100%
5.75-6.15	0.2	50%
6.15-6.35	0.3	150%
6.35-7.25	0.4	44%
7.25-7.35	0.1	100%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	8.5
1	9.59
2	10.60
3	11.60
4	12.38
5	12.97
6	13.58
7	14.24
8	No sample
9	No sample
10	No sample
11	No sample
12	No sample
13	No sample
14	No sample
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

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AMEC MudMole Bore Log

Collection Information

Place Field ID Label Here

Date: 2/23/10

Project: E waterway Recorder: RHG

Station Name: EW-5

Tube Length (ft): 14.55

Water Depth (ft): 21.2 Time: 1155

Est. Tide Height (ft) 9.7 (MLLW)

Est. Mudline: 11.5 (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing 212245

Easting 1267235

On Deck Top of Sediment 8.5

Comments: Sandy silt - no debris

Penetration Tape Reading	Recovery Tape Reading	Comments
13.4	13.3	
11.5	11.4	
10.2	10.4	slowing
9.8	10.3	
9.6	10.1	
9.1	9.9	
> 8.8	9.6	
8.4	9.4	
8.2	9.1	
7.3?	8.7	Penetration tape in hole by tube
7.2	8.6	

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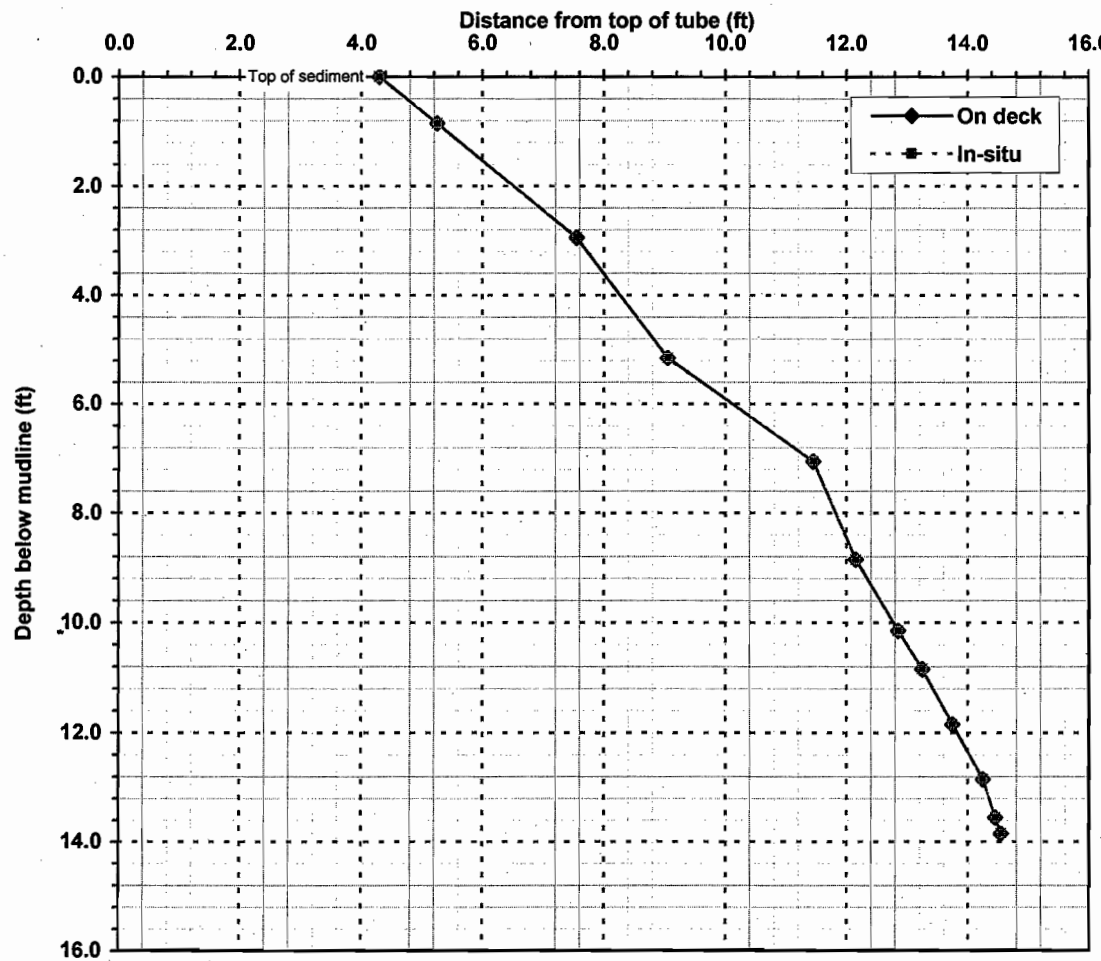
Mudmole™ Bore Log

Project:	East Waterway Coring (Feb 2010)	**Station:**	SC11
Project No:	12235.002	**Position:**	NAD83 WA N
Collected by:	GSM		213056 Northing
Date:	2/23/2010 **Time:** 10:03		1267401 Easting
Water depth:	46.7 ft **Mudline:** -36.5 ft MLLW		(estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 13.85 ft/ On deck recovery 10.25 ft = 74% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-0.85000000000000	0.95	112%
0.850000000000001-2	2.3	110%
2.95-5.15	1.5	68%
5.15-7.05	2.4	126%
7.05-8.85	0.7	39%
8.85-10.15	0.7	54%
10.15-10.85	0.4	57%
10.85-11.85	0.5	50%
11.85-12.85	0.5	50%
12.85-13.55	0.2	29%
13.55-13.85	0.1	33%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	4.3
1	5.41
2	6.51
3	7.58
4	8.27
5	8.95
6	10.12
7	11.39
8	11.82
9	12.23
10	12.77
11	13.33
12	13.83
13	14.29
14	No sample
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

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AMEC MudMole Bore Log

Collection Information

Place Field ID Label Here

Date: 2/23/10

Project: E Waterway Recorder: RHG

Station Name: EW-11 / SC11

Tube Length (ft): 14.55

Water Depth (ft): 46.7 Time: 1003

Est. Tide Height (ft) 10.2 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing 213056

Easting 1267401

On Deck Top of Sediment 4.3

Comments: silty bottom

Penetration Tape Reading	Recovery Tape Reading	Comments
13.7	13.6	
11.6	11.3	
9.4	9.8	
7.5	7.4	
5.7	6.7	
4.4	6.10	
3.7	5.6	
2.7	5.1	
1.7	4.6	
1.0	4.4	
0.7	4.3	

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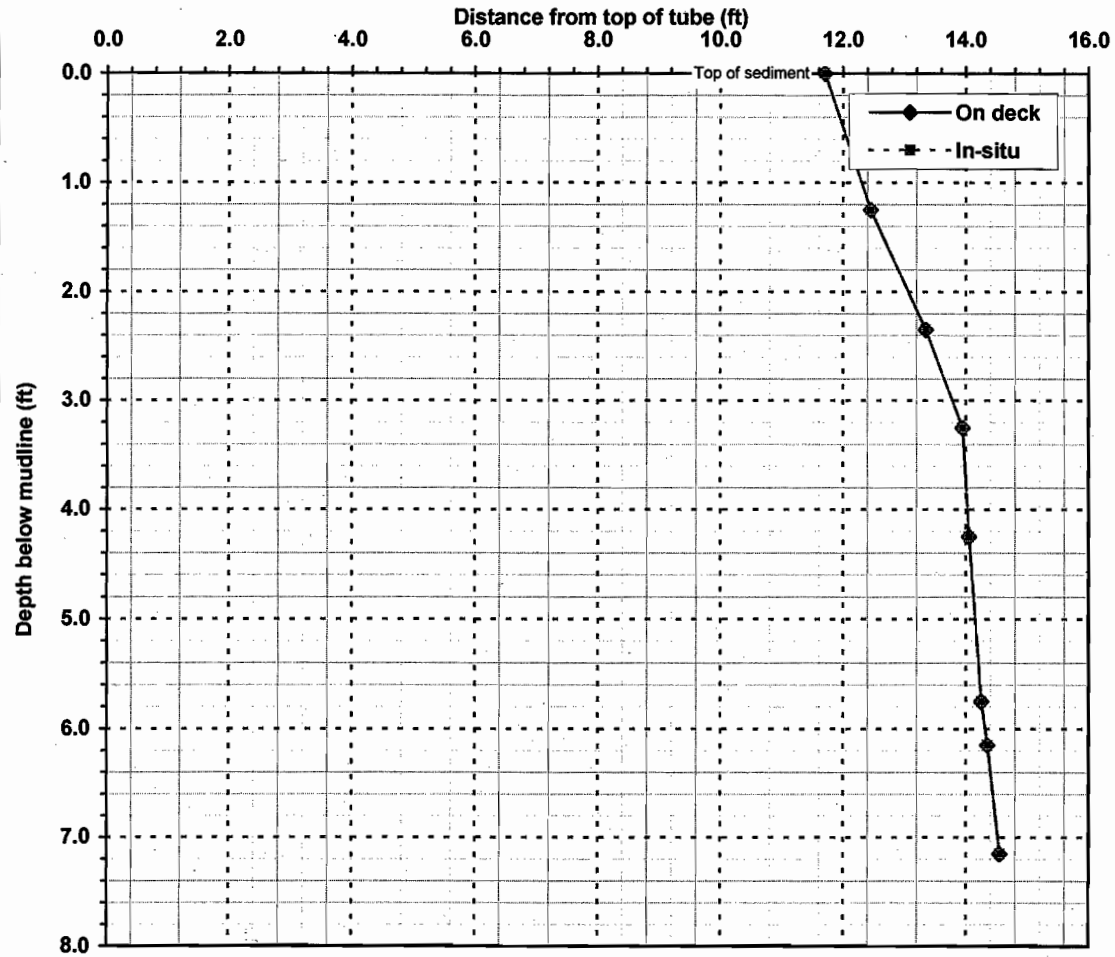
Mudmole™ Bore Log

Project:	East Waterway Coring (Feb 2010)	**Station:**	SC07
Project No:	12235.002	**Position:**	NAD83 — WA N
Collected by:	GSM		212593 — Northing
Date:	2/23/2010	**Time:**	8:35 — 1267187 — Easting
Water depth:	22.5 ft	**Mudline:**	-12.9 ft MLLW (estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 7.15 ft/ On deck recovery 2.85 ft = 40% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-1.25	0.75	60%
1.25-2.35	0.9	82%
2.35-3.25	0.6	67%
3.25-4.25	0.1	10%
4.25-5.75	0.2	13%
5.75-6.15	0.1	25%
6.15-7.15	0.2	20%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	11.7
1	12.30
2	13.06
3	13.78
4	14.03
5	14.15
6	14.31
7	14.52
8	No sample
9	No sample
10	No sample
11	No sample
12	No sample
13	No sample
14	No sample
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

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AMEC MudMole Bore Log

Collection Information

Place Field ID Label Here

Date: 2/23/10

Project: E Waterway Recorder: RHG

Station Name: EW-7 / SC07

Tube Length (ft): 14.55

Water Depth (ft): 22.5 Time: 835

Est. Tide Height (ft) 9.6 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing 212593

Easting 1267187

On Deck Top of Sediment ~~11.6~~ 11.7 corrected by lab / NB

Comments: Gravelly sands

Penetration Tape Reading	Recovery Tape Reading	Comments
13.3	13.8	
12.2	12.9	
11.3	12.3	
10.3	12.2	
8.8	12.0	
8.4	11.9	
7.4	11.7	

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Mudmole™ Bore Log

Project: East Waterway Coring (Feb 2010) **Station:** SC04

Project No: 12235.002 NAD83 WA N

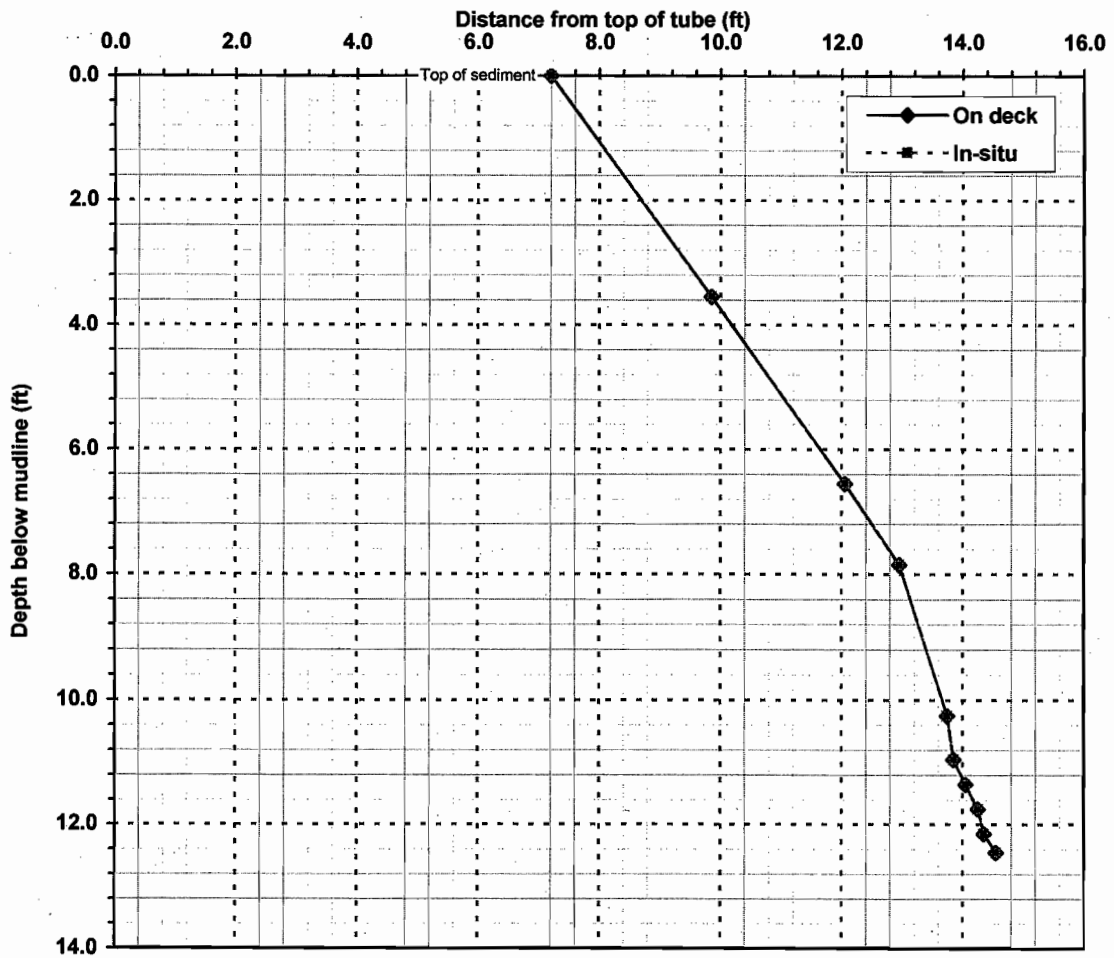
Collected by: GSM Northing

Date: 2/22/2010 **Time:** 14:47 Easting

Water depth: 5.5 ft **Mudline:** -0.5 ft MLLW (estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 12.45 ft/ On deck recovery 7.35 ft = 59% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-3.55	2.65	75%
3.55-6.55	2.2	73%
6.55-7.85	0.9	69%
7.85-10.25	0.8	33%
10.25-10.95	0.1	14%
10.95-11.35	0.2	50%
11.35-11.75	0.2	50%
11.75-12.15	0.1	25%
12.15-12.45	0.2	67%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	7.2
1	7.95
2	8.69
3	9.44
4	10.18
5	10.91
6	11.65
7	12.36
8	13.00
9	13.33
10	13.67
11	13.88
12	14.31
13	No sample
14	No sample
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

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AMEC MudMole Bore Log

Place Field ID Label Here

Collection Information

Date: 2/22/00

Project: E Waterway Recorder: RHG

Station Name: EW-4 / SC04

Tube Length (ft): 14.55

Water Depth (ft): 5.5 Time: 1447

Est. Tide Height (ft) 5.0 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: _____

Northing _____

Easting _____

On Deck Top of Sediment 7.2

Comments: No GPS in shadow of bridge

Penetration Tape Reading	Recovery Tape Reading	Comments
11.0	11.9	
8.0	9.7	
6.7	8.8	
4.3	8.0	
3.6	7.9	
3.2	7.7	
2.8	7.5	
2.4	7.4	
2.1	7.2	

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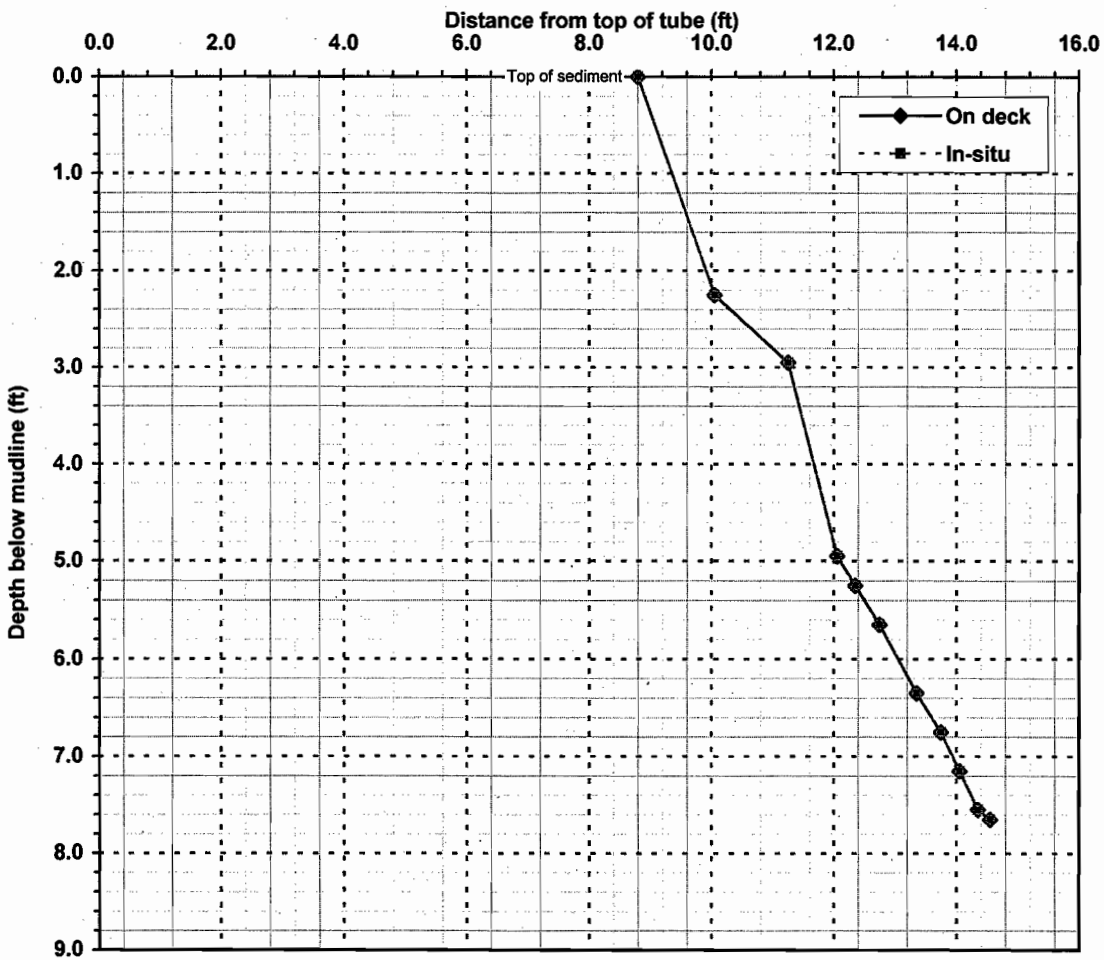
Mudmole™ Bore Log

Project:	East Waterway Coring (Feb 2010)	**Station:**	SC03
Project No:	12235.002	**Position:**	NAD83 — WA N
Collected by:	GSM		No GPS — Northing
Date:	2/22/2010	**Time:**	13:48 — No GPS — Easting
Water depth:	11.5 ft	**Mudline:**	-6.6 ft MLLW (estimated using tide tables)

Place Field ID Label Here

Weather/Comments: N/A



Penetration 7.65 ft/ On deck recovery 5.75 ft = 75% Recovery

Penetration interval (ft)	Interval recovery (ft)	Percent recovery
0-2.25	1.25	56%
2.25-2.95	1.2	171%
2.95-4.95	0.8	40%
4.95-5.25	0.3	100%
5.25-5.65	0.4	100%
5.65-6.35	0.6	86%
6.35-6.75	0.4	100%
6.75-7.15	0.3	75%
7.15-7.55	0.3	75%
7.55-7.65	0.2	200%

Depth below mudline (ft)	Distance from top of tube (ft)
Mudline	8.8
1	9.36
2	9.91
3	11.27
4	11.67
5	12.10
6	13.05
7	13.94
8	No sample
9	No sample
10	No sample
11	No sample
12	No sample
13	No sample
14	No sample
15	No sample
16	No sample
17	No sample
18	No sample
19	No sample
20	No sample

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AMEC MudMole Bore Log

Collection Information

Place Field ID Label Here

Date: 2/22/10

Project: EWaterway Recorder: RHG

Station Name: EW-3 / SC03

Tube Length (ft): 14.55

Water Depth (ft): 11.5 Time: 1348

Est. Tide Height (ft) 4.9 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing 212030

Easting 1267032

On Deck Top of Sediment 8.8 ✓

Comments: Under bridge shadow

Actual Coordinates are 12 ft South of Coordinates recorded. and logged.

Penetration Tape Reading	Recovery Tape Reading	Comments
12.3	13.3	
11.6	12.1	
9.6	11.3	
9.3	11.0	
8.9	10.6	
8.2	10.0	
7.8	9.6	
7.4	9.3	
7.0	9.0	
6.9	8.8	

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AMEC MudMole Bore Log

Collection Information

Place Field ID Label Here

Date: 2/23/10

Project: E. Waterway Recorder: RHG

Station Name: EW-2

Tube Length (ft): 14.55

Water Depth (ft): 22.1 Time: 1330

Est. Tide Height (ft) 7.5 (MLLW)

Est. Mudline: _____ (MLLW)

Position Information

Coordinate Datum: WAN NAD83

Northing _____

Easting _____

On Deck Top of Sediment _____

Comments: Rock & riprap shelly and sandy over riprap. No attempt

Penetration Tape Reading	Recovery Tape Reading	Comments

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ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: SC-01
Attempt No. ___ of ___
Date: 2/23/10
Logged By: DG
Horizontal Datum:

Field Collection Coordinates:
Lat/Northing: at target
Long/Easting: at target

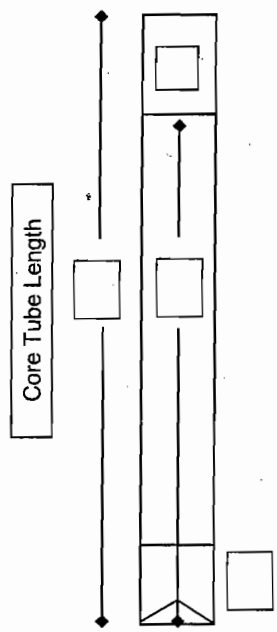
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 30.5

B. Water Level Measurements
Time: 1430
Height: 5.2
Source: Nobletec Navigation

C. Mudline Elevation
25.3

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length:
Drive Penetration:
Headspace Measurement:
Recovery Measurement:
Recovery Percentage:
Total Length of Core To Process:



Drive Notes:
Diver surveyed Bottom in all directions and similar rip rap as before
no core attempted.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

David Billingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: SC-02
Attempt No. ___ of ___
Date: 2/23/10
Logged By: DG
Horizontal Datum: Nad 83 wa N. usft.

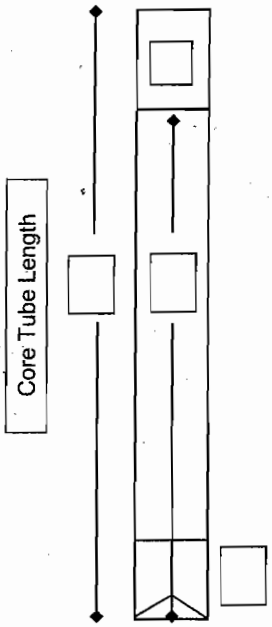
Field Collection Coordinates:
Lat/Northing: at target
Long/Easting: at target

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 22.1

B. Water Level Measurements
Time: 1330
Height: 7.2
Source: Nobletec Navigation

C. Mudline Elevation
14.9

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length:
Drive Penetration:
Headspace Measurement:
Recovery Measurement:
Recovery Percentage:
Total Length of Core To Process:

Drive Notes:
no core attempted
Bottom covered with rip rap. diver swam throughout area and all same out 50'. Discussed with S. McGrotty and decided to abandon station

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

David Gillingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: SC-05
Attempt No. 1 of 1
Date: 2/23/10
Logged By: DG
Horizontal Datum: NAD 83 WA N. US feet

Field Collection Coordinates:
Lat/Northing: 212245
Long/Easting: 1267235

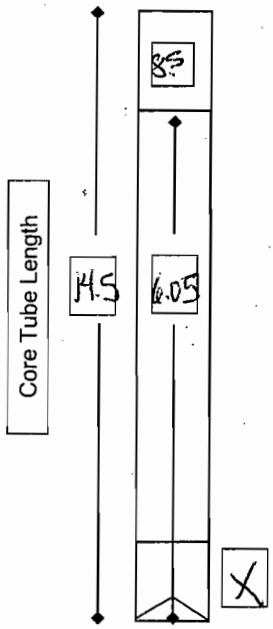
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 21.2

B. Water Level Measurements
Time: 1200
Height: 9.4
Source: Nobletec Navigation

C. Mudline Elevation
11.8

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 14.55
Drive Penetration: 7.35
Headspace Measurement: 8.5
Recovery Measurement: 6.05
Recovery Percentage: 82.3%
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
Top 4' easy penetration then very hard with poor recovery.
Bottom 3' very slow determined refusal

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Coarse speckled dark sand in nose.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG RSS
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: SC 07A
Attempt No. 1 of 1 (mudmole) note: 2nd attempt will be made with vibracore
Date: 2/23/10
Logged By: DG
Horizontal Datum: NAD 83 WA N. US FT.

Field Collection Coordinates:
Lat/Northing: 212593
Long/Easting: 1267187

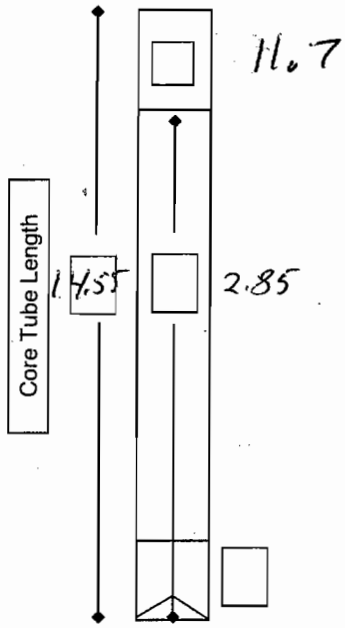
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 22.5

B. Water Level Measurements
Time: 0840
Height: 9.7
Source: Nobletec Navigation

C. Mudline Elevation
12.8

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 14.55
Drive Penetration: 7.5
Headspace Measurement: 11.7
Recovery Measurement: 2.85
Recovery Percentage: 36%
Total Length of Core To Process:



Drive Notes:
moderately stiff for first foot, then very stiff remainder

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

core outside very scoured and nose dinged on gravelly material
pea gravel mixed with coarse sand / some gray coarse sand in nose.
decision made to move from site

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☒ AMEC ☐ MSS
Vertical Datum: feet MLLW

Station ID: SC-11
Attempt No. 1 of 1
Date: 2/23/10
Logged By: DG
Horizontal Datum: Nad 83 Wa N. us feet

Field Collection Coordinates:
Lat/Northing: 213056
Long/Easting: 1267401

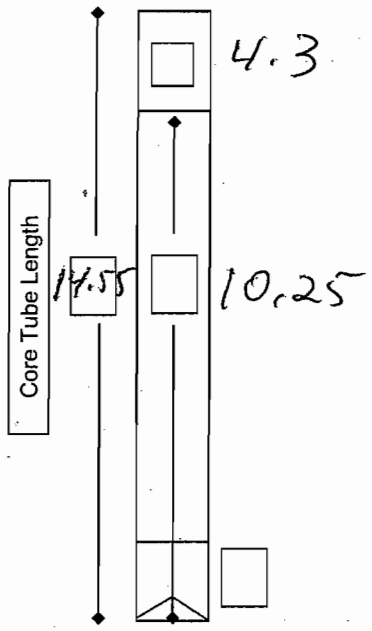
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 46.7

B. Water Level Measurements
Time: 1000
Height: 10.3
Source: Nobletec Navigation

C. Mudline Elevation
36.4

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 14.55
Drive Penetration: 13.85
Headspace Measurement: 4.3
Recovery Measurement: 10.25
Recovery Percentage: 74%
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration first 7 feet.
Stiffer material below 7 feet
at 10 ft very slow progress and
recovery drops off.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Black coarse sand in nose

Notes:

Dave Gillespie

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DM, DD, DG, DL
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10 - SC19
Attempt No. 1 of 1
Date: 2-24-10
Logged By: SE
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47° 34.6201
Long/Easting: 122° 20.5929

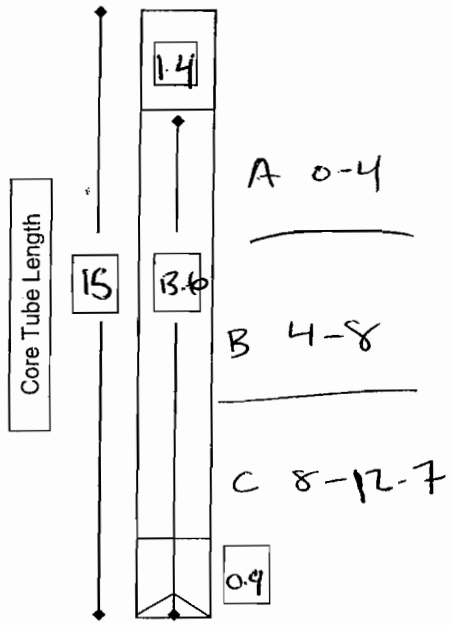
A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: 59 ft

B. Water Level Measurements
Time: 1428
Height: 7.3
Source: Nobletec Navigation

C. Mudline Elevation
51.7 ft

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15 ft
Drive Penetration: 14 ft
Headspace Measurement: 1.4 ft
Recovery Measurement: 13.6 ft
Recovery Percentage: 97.1%
Total Length of Core To Process: 12.7 ft

Recovery Measurements (prior to cuts)



Drive Notes:
easy for entire drive w/ 3ft free fall @ top

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose - moist, olive, fine sand
A - wet, soft, olive/brown, silt, slight H_2S odor, no sheen (layer below has black, firm & sandy)
B - moist, firm, fine sand, trace silt, small amt of red specklesy (grains), no sheen
C - moist, soft, olive, fine ~~sandy silt~~ very silty sand, no odor no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DD, DM, DG, RL
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC20
Attempt No. 1 of 1
Date: 2-24-10
Logged By: SF
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47° 34.6303
Long/Easting: 122° 20.6127

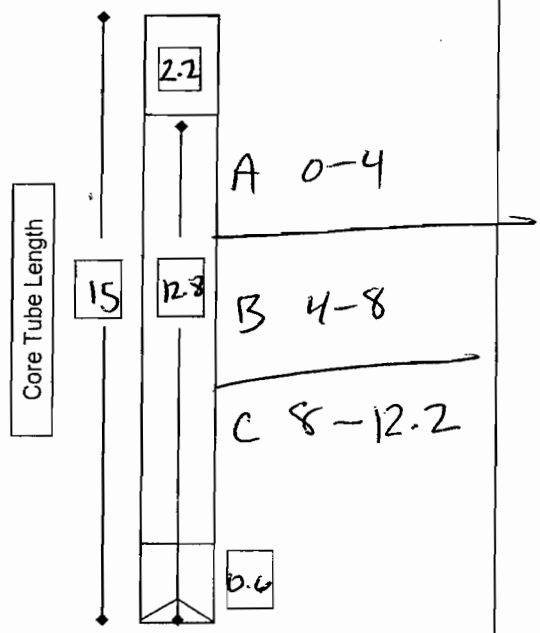
A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: ~~61.5 ft~~ 59.0 ft

B. Water Level Measurements
Time: 1539
Height: 4.8
Source: Nobletec Navigation

C. Mudline Elevation
56.7 ft

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15 ft.
Drive Penetration: 14 ft
Headspace Measurement: 2.2 ft
Recovery Measurement: 12.8 ft
Recovery Percentage: 91.4%
Total Length of Core To Process: 12.2 ft

Recovery Measurements (prior to cuts)



Drive Notes:
Sinks free fall - debris?
easy ~7ft - 10ft debris?
easy 10 - 14 ft.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

A - wet, soft, black ~~fine~~ silt, fine sand, no odor, no sheen
B - moist, firm, dark grey silty clay, grey, no odor, no sheen
C - moist, firm, grey/olive, silty fine sand, no odor no sheen.
nose - moist, firm, grey/brown, fine ~~sand, silt,~~ silty sand, no odor, no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DJ, DG, DM, R
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC21
Attempt No. 1 of 1
Date: 2-24-10
Logged By: SF
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47° 34.6569
Long/Easting: 122° 20.5930

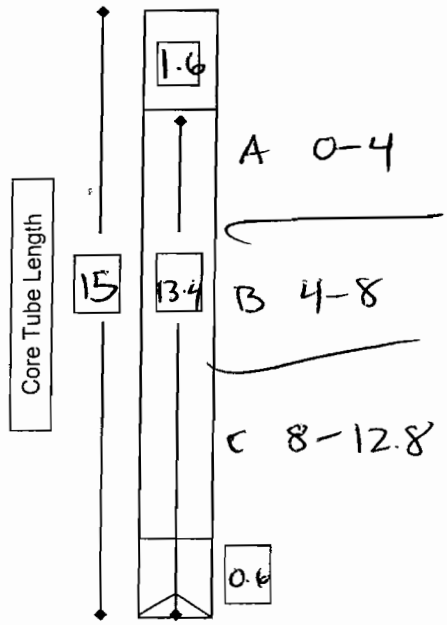
A. Water Depth
DTM Depth Sounder: na
DTM Lead Line: 56.7 ft.

B. Water Level Measurements
Time: 1516
Height: 5.8 ft.
Source: Nobletec Navigation

C. Mudline Elevation
50.9 ft

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15 ft.
Drive Penetration: 14 ft
Headspace Measurement: 1.6 ft
Recovery Measurement: 13.4 ft.
Recovery Percentage: 95.7%
Total Length of Core To Process: 12.8 ft.

Recovery Measurements (prior to cuts)



Drive Notes:
top 5f free fall
easy from 5'-6.5'
medium 6.5-8'
easy 8-10'
medium 10'- bottom.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, ~~debris, plant matter~~, shells, biota

A - wet, soft, black, silt, slight H_2S, no sheen
small brown surface layer
B - very moist, ~~medium s~~ firm, black, silt, trace fine sand
slight hydrocarbon, trace sheen
C - moist, firm, grey, medium/coarse sand w/
red specks (grains) no odor, no sheen
nose - moist, firm, grey, silt, fine sand, no odor, no sheen.

Notes:

all measurements in decimal ft.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DM, PL, DD, DC
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC3S
Attempt No. 1 of 1
Date: 2-24-10
Logged By: SF
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47 34.8486
Long/Easting: 122 20.5898

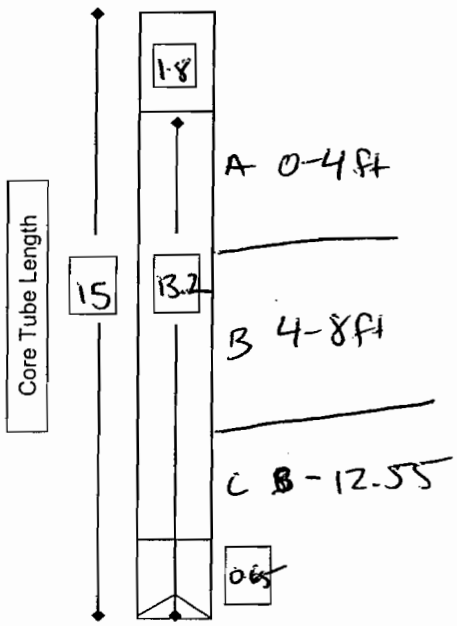
A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: 55.4ft

B. Water Level Measurements
Time: 0940
Height: 9.4 ft.
Source: Nobletec Navigation

C. Mudline Elevation
46ft.

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15ft
Drive Penetration: 14ft
Headspace Measurement: 1.8 ft
Recovery Measurement: 13.2 ft
Recovery Percentage: 94.2%
Total Length of Core To Process: 12.55ft

Recovery Measurements (prior to cuts)



Drive Notes:
easy ~~moderate~~ (SF) drive - entire drive

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose is empty
A - wet, soft, brown, silt, sand, no odor, no sheen
B - moist, olive (gray) silt, ~~clay~~, no odor, no sheen, soft.
C - moist, olive (gray) silt, ~~clay~~, no odor, no sheen, soft
nose - moist, grey w/ red specks (grains), fine sand, no odor, no sheen, soft.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DM, PL, DD, DG
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC38
Attempt No. 1 of 1
Date: 2-24-10
Logged By: SF
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47 34.8945
Long/Easting: 122 20.5982

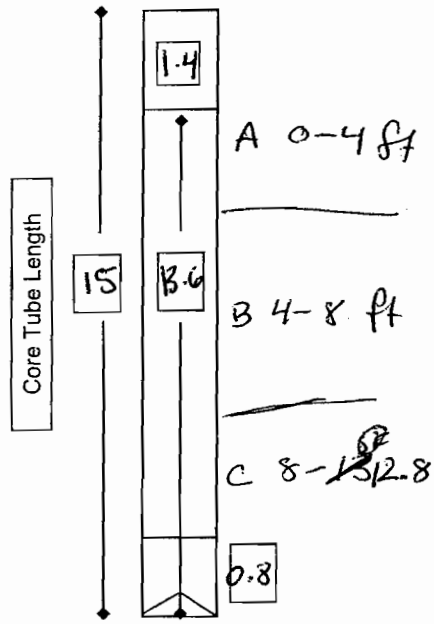
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 63 ft.

B. Water Level Measurements
Time: 1035
Height: 10.2
Source: Nobletec Navigation

C. Mudline Elevation
52.8

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 ft
Drive Penetration: 14 ft.
Headspace Measurement: 1.4 ft
Recovery Measurement: 13.6 ft.
Recovery Percentage: 97.1%
Total Length of Core To Process: 12.8 ft.

Recovery Measurements (prior to cuts)



Drive Notes:
easy ~~moderate~~ SF for entire drive.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

A - moist, firm, olive, silt, fine sand, no odor, no sheen
trace organic debris.
B - moist, moderately stiff, olive, silt, fine sand, no odor
no sheen
C - moist, moderately stiff, olive, fine sand, trace silt, no odor
no sheen
nose - moist, olive, fine sand, silt (trace), no odor, no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DM, IL, DP, DG
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC41
Attempt No. 1 of 2
Date: 2-24-10
Logged By: SF
Horizontal Datum: NAD83

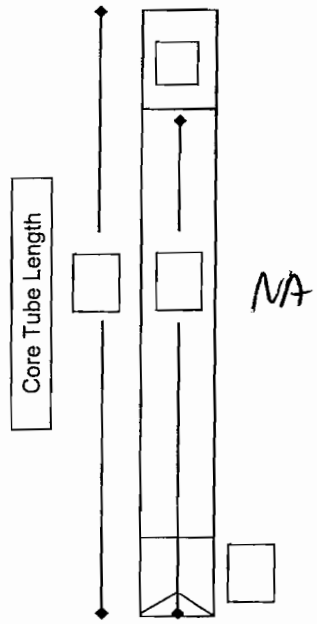
Field Collection Coordinates:
Lat/Northing: NA
Long/Easting: NA

A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: NA

B. Water Level Measurements
Time: 1123
Height: 10.2 ft.
Source: Nobletec Navigation

C. Mudline Elevation
NA

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: NA
Drive Penetration: NA
Headspace Measurement: NA
Recovery Measurement: NA
Recovery Percentage: NA
Total Length of Core To Process: NA

Drive Notes:
NA

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

NA

Notes:
Vibracore tipped over and broke hydraulic lines

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DM, PL, DP, DG
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC41
Attempt No. 2 of 2
Date: 2-24-10
Logged By: SF
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47°35.0284
Long/Easting: 122°20.5975

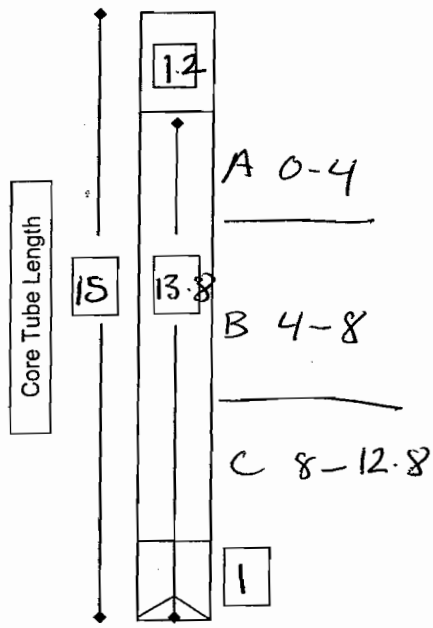
A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: 64 ft

B. Water Level Measurements
Time: 1153
Height: 10.1
Source: Nobletec Navigation

C. Mudline Elevation
53.9

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15 ft.
Drive Penetration: 14 ft
Headspace Measurement: 1.2 ft
Recovery Measurement: 13.8 ft.
Recovery Percentage: 98.6%
Total Length of Core To Process: 12.8

Recovery Measurements (prior to cuts)



Drive Notes:
easy for entire drive

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

A - moist, ~~soft~~ firm, olive, fine sandy silt, no odor, no sheen, trace organic
B - moist, ~~soft~~ firm, olive, fine sand w/ red specks (grains), no odor, no sheen
C - moist, firm, olive, silty fine sand ~~& silt~~, no odor, no sheen
nose - moist, firm, silty fine sand, ~~silt~~, no odor, no sheen trace shell.

Notes:
Slight over penetration ~2 inches.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: Dm, DD, PL, DG
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC45
Attempt No. 1 of 1
Date: 2-24-10
Logged By: SIE
Horizontal Datum: NAD83

Field Collection Coordinates:
Lat/Northing: 47°35.1335
Long/Easting: 122° 20.6034

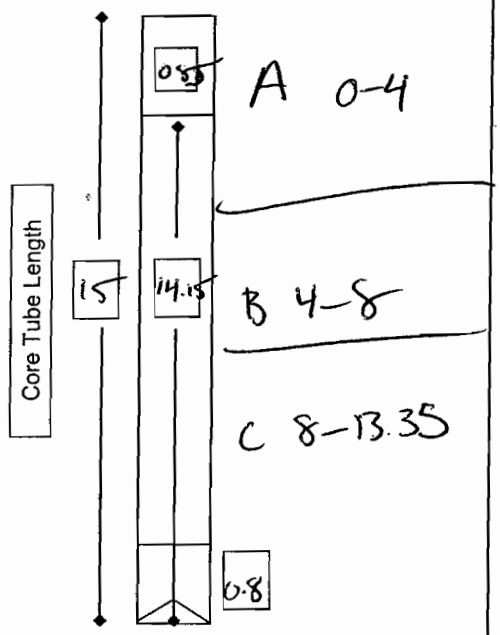
A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: 63.5 ft

B. Water Level Measurements
Time: 1308
Height: 9.3 ft
Source: Nobletec Navigation

C. Mudline Elevation
524.2 ft

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15 ft
Drive Penetration: 14 ft
Headspace Measurement: 0.85 ft
Recovery Measurement: 14.15 ft
Recovery Percentage: 101%
Total Length of Core To Process: 13.35 ft

Recovery Measurements (prior to cuts)



Drive Notes:
easy for entire drive

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

A - moist, firm, olive, sand w/ red specks (grains), trace silt, no odor, no sheen, organic material
B - moist, firm, olive, fine sand, trace silt, no odor no sheen
C - moist, firm, olive, silty fine sand, silt, no odor no sheen
nose - moist, firm, olive, fine sand, no odor, no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-37
Attempt No. 1 of 1
Date: 2/25
Logged By: DG
Horizontal Datum: [redacted] WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.8911
Long/Easting: 122 20.7347 853

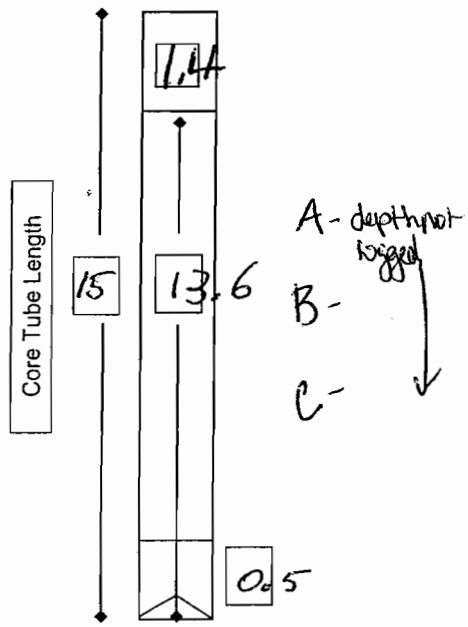
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 61.2

B. Water Level Measurements
Time: 855
Height: 7.6
Source: Nobletec Navigation

C. Mudline Elevation
53.6

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15.0
Drive Penetration: 14.0
Headspace Measurement: 1.4
Recovery Measurement: 13.6
Recovery Percentage: 97.1
Total Length of Core To Process: 13.0 ft.

Recovery Measurements (prior to cuts)



Drive Notes:
easy drive Loose, easy penetration entire core length

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

shoe empty, trace Sand.
Top - Olive Brown moist fine SAND with moderate silt no odor no sheen, medium stiff. very thin soft silt on surface
4' - dark olive silty Fine SAND, medium stiff, moist moderate silt
8' - Olive, moist moderately silty SAND, (fine) medium stiff no odor no sheen
13' - Olive, median dense, coarser SAND, trace silt, no odor no sheen.

Notes:

David Collington

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS · SF · DM · DG.
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-43
Attempt No. 1 of 1
Date: 2/25/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4735.0620
Long/Easting: 122.20.7367

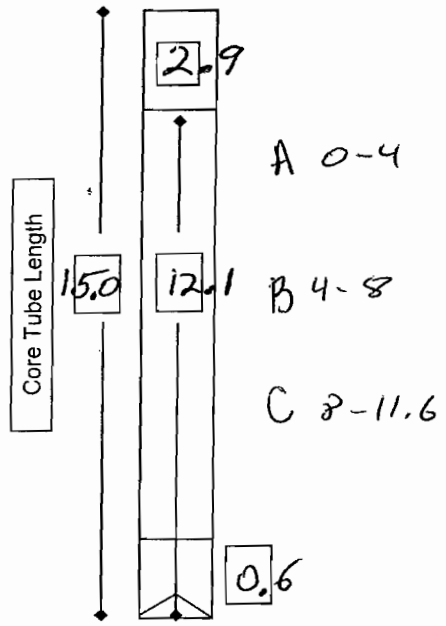
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 64.8

B. Water Level Measurements
Time: 0945
Height: 8.1
Source: Nobletec Navigation

C. Mudline Elevation
56.7

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14.0
Headspace Measurement: 2.9
Recovery Measurement: 12.1
Recovery Percentage: 86.4
Total Length of Core To Process: 11.6

Recovery Measurements (prior to cuts)



Drive Notes:
top 2' free fall
easy penetration 2-14'

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose empty, trace ~~gritty~~ coarse sand.
0' olive wet, soft sandy SILT with occasional small bits of wood. no odor no sheen
4' Dark olive, moist moderately stiff coarse grain SAND with trace silt to no silt. moderate H_2S odor no sheen
8' Dark olive moist to damp SAND strong H_2S odor no sheen. ~~moderately stiff~~ medium dense
11.6' Gray to olive moist SAND (red ~~speckled~~ grains) Slight H_2S odor no sheen, moderately dense.

Notes:

David Cottingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.	**Station ID:** SC-46
Job No: 060003-01.17 Task 2	**Attempt No.** 2 of 1
Field Staff: DG	**Date:** 2/25/10
Contractor: ☐ AMEC ☒ MSS	**Logged By:** DG
Vertical Datum: feet MLLW	**Horizontal Datum:** WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.1465 Long/Easting: 122 20.7433

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 63.4

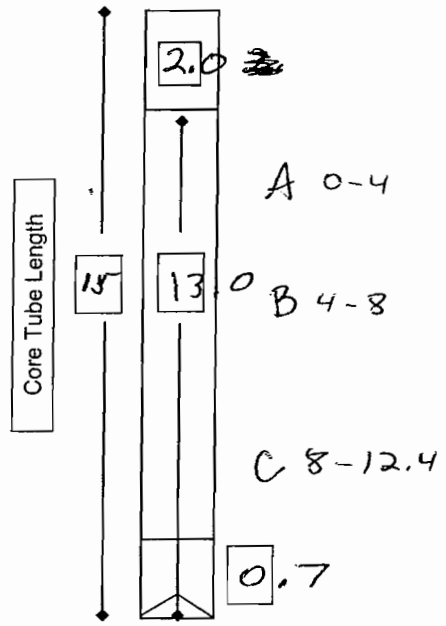
B. Water Level Measurements
Time: 1055
Height: 9.1
Source: Nobletec Navigation

C. Mudline Elevation
54.3

Core Collection Recovery Details:

Core Accepted: Yes / No	
Core Tube Length:	15
Drive Penetration:	14.0
Headspace Measurement:	2.0
Recovery Measurement:	13.0
Recovery Percentage:	92.8
Total Length of Core To Process:	12.4

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration throughout Drive

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose, fine olive SAND, trace Silt
0' Brown, wet, soft Fine SAND with trace Silt Occasional wood and gravel. no odor no sheen
4' moist Gray fine SAND with Slightly clayey no odor, no sheen.
8' moist Black medium dense SAND trace ~~clay~~ Silt and trace woody material no odor no sheen
12.4 damp Dense fine SAND trace silt no odor no sheen Gray

Notes:
first attempt fell over prior to core capture, cleaned tube and took second attempt approx. 15' South.

David Bellingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM. JF MSS
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-55
Attempt No. 1 of 1
Date: 2/25/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.3652
Long/Easting: 122 20.7425

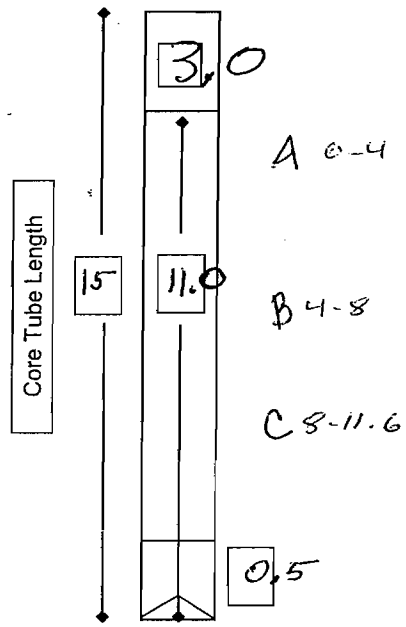
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 66.0

B. Water Level Measurements
Time: 1220
Height: 10.1
Source: Nobletec Navigation

C. Mudline Elevation
55.9

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15.0
Drive Penetration: 14.0
Headspace Measurement: 3.0
Recovery Measurement: 11.0
Recovery Percentage: 78.6
Total Length of Core To Process: 11.6

Recovery Measurements (prior to cuts)



Drive Notes:
2' moderate difficult,
easy penetration 2-14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose empty with gray SAND and moderate H_2S odor
0' dark olive moderately Dense fine sand, moderate Silt
Slight H_2S odor no sheen
4' Dark olive Dense fine SAND moist, Strong H_2S
no odor
8' Gray moist, dense, coarse SAND Strong H_2S
no sheen
11.6' Gray moist dense, coarse SAND Strong H_2S
occasional wood material.

Notes:

David Bellingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG NS SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-18
Attempt No. 1 of 1
Date: 2/26/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.6041
Long/Easting: 122 20.7487

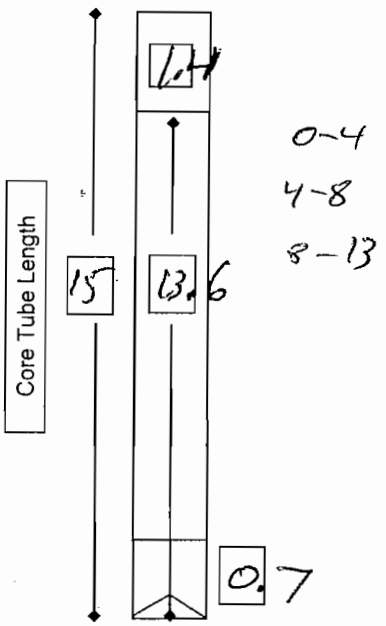
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 55.5

B. Water Level Measurements
Time: 1250
Height: 9.8
Source: Nobletec Navigation

C. Mudline Elevation
45.7

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15.0
Drive Penetration: 14.0
Headspace Measurement: 1.4
Recovery Measurement: 13.6
Recovery Percentage: 97%
Total Length of Core To Process: 13.0

Recovery Measurements (prior to cuts)



Drive Notes:
0-5' freefall
bump at 7'
easy penetration to 14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose gray Fine SAND
A - wet, loose, brown, silt w/ few fine sand, no odor no sheen
4' Black Soft SILT with trace fine Sand. Slight H_2S no sheen moist.
8' moist Dense Fine SAND no odor no Sheen Red grains
13' moist Gray Dense fine SAND no odor no sheen

Notes:

David Billingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG NS SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-07 B
Attempt No. 1 of 1
Date: 2/26/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.3678
Long/Easting: 122 20.7202

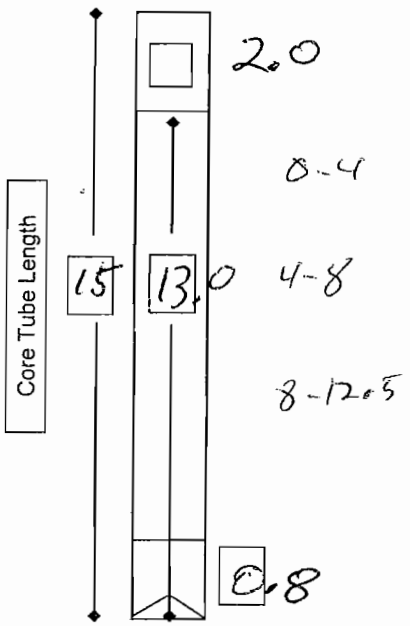
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 26.8

B. Water Level Measurements
Time: 1215
Height: 9.2
Source: Nobletec Navigation

C. Mudline Elevation
18.6

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15.0
Drive Penetration: 13.5
Headspace Measurement: 2.0
Recovery Measurement: 13.0
Recovery Percentage:
Total Length of Core To Process: 12.5

Recovery Measurements (prior to cuts)



Drive Notes:
debris at 4'
easy penetration throughout length

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose Brown Fine SAND with trace silt and trace organic material
0' Black SAND with moderate gravel Occasional Silt. Slight petroleum odor slight to trace sheen.
4' Gray Fine SAND trace of clay lenses. Slight H_2S odor no sheen moist Dense.
8' Dense moist medum SAND with Red Grains

Notes:
12.5' Dense Damp fine SAND with occasional clay no odor no sheen. Gray

David Cellingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG NS SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-15
Attempt No. 1 of 1
Date: 2/26/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.5570
Long/Easting: 122 20.7400

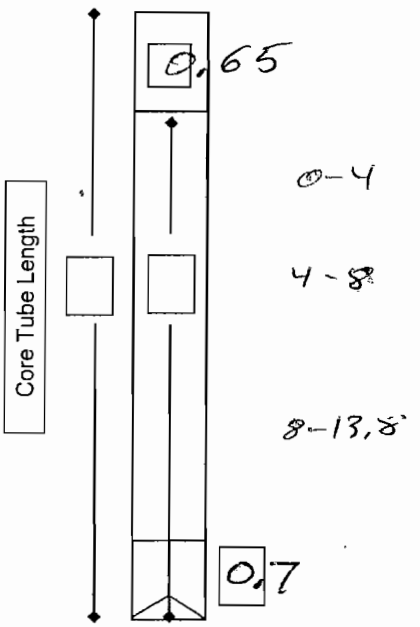
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 57.1

B. Water Level Measurements
Time: 1030
Height: 7.1
Source: Nobletec Navigation

C. Mudline Elevation
44.0

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15.0
Drive Penetration: 14.0
Headspace Measurement: 0.65
Recovery Measurement: 14.35
Recovery Percentage: 100+
Total Length of Core To Process: 13.8

Recovery Measurements (prior to cuts)



Drive Notes:
2.5' freefall
easy penetration 2-9'
Denser below 9'-14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose, remnants of Gray Fine SAND
0' Gray/olive wet soft SILT with ~~occ~~ occasional Fine Sand. no sheen no odor
4' olive Fine SAND with occasional Clay moderate H_2S no sheen
8' Gray Fine SAND with moderate Clay slight H_2S no sheen, moist Medium Dense
13.8 Dense Damp Fine SAND, red grains no odor no sheen

Notes:
Slight over penetration into piston

David Collington

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS DG NS SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-10
Attempt No. 1 of 1
Date: 2/26/10
Logged By: DG
Horizontal Datum: WGS-84

Field Collection Coordinates:
Lat/Northing: 47 34.4342
Long/Easting: 122 20.7462

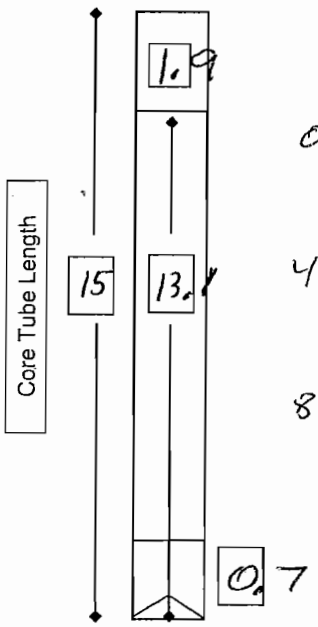
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 45.0

B. Water Level Measurements
Time: 0855
Height: 6.5
Source: Nobletec Navigation

C. Mudline Elevation
38.5

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15.0
Drive Penetration: 14.0
Headspace Measurement: 1.9
Recovery Measurement: 13.1
Recovery Percentage: 93.6
Total Length of Core To Process: 12.6 − 1.4

Recovery Measurements (prior to cuts)



0–4
4–8
8–12.6 (1.4' void in Bottom of c section)

Drive Notes:
top 1' hard penetration
easy penetration 1-6
6-9 moderately Dense Penetration
10-14 moderately Dense to Dense

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose empty
0'– SILT Soft, wet dark olive, Trace sand, Slight Petrol odor, Trace Sheen
4' Coarse moist SAND, trace silt, Occasional Gravel Gray, no odor, no sheen, medium dense
8' Gray, Fine SAND trace silt, no odor no sheen 1-2" piece of wood on edge.
12.5' Gray fine SAND with trace wood in shoe above fingers
VOID in core at Bottom 1.4 feet in Section C

Notes:

David Gallenghan

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG NS SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-12
Attempt No. 1 of 1
Date: 2/26/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.5026
Long/Easting: 122 20.7204

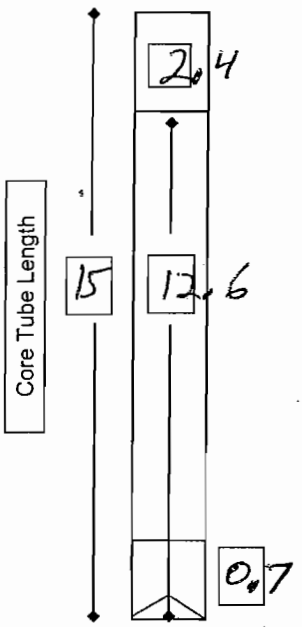
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 48.4

B. Water Level Measurements
Time: 0945
Height: 6.6
Source: Nobletec Navigation

C. Mudline Elevation
41.8

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15.0
Drive Penetration: 14.0
Headspace Measurement: 2.4
Recovery Measurement: ~~12.4~~ 12.6
Recovery Percentage: 90
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes:
4' free fall
4-14 easy penetration

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose empty void on Bottom of core
0' Soft wet Brown SILT trace shell
no odor no sheen, trace fine sand.
4' Gray moist Dense fine to medium SAND with
Occasional wood slight H_2S no sheen
8' gray moist Dense SAND no odor no
sheen
12.6' Gray moist dense fine SAND no sheen
no odor

Notes:

David Collingham

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS, RB, DG, JD
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC23
Attempt No. 1 of 1
Date: 3/2/10
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.6888
Long/Easting: 122.20.4333

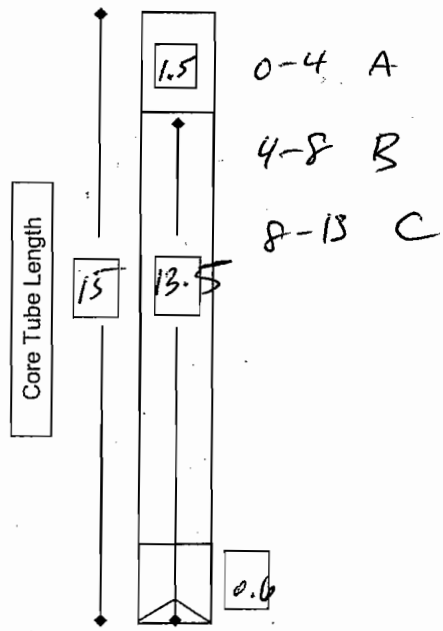
A. Water Depth
DTM Depth Sounder: –
DTM Lead Line: 25.5

B. Water Level Measurements
Time: 0840
Height: 8 ft
Source: Nobletec Navigation

C. Mudline Elevation
17.5

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.5
Recovery Measurement: 13.5
Recovery Percentage: 96%
Total Length of Core To Process: 13



Drive Notes:
debris at 4-5 feet
little debris at 6 ft
moderate - easy penetration after 6 ft

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose empty
0' wet, soft, dark brown, SILT, trace c-Sand. No ODOR, No Sheen
4' moist, med dense, dark brown f-SAND, trace Silt, ~~Petroleum~~ HC-like odor, Metallic sheen
8' damp, med dense, dark brown MC-SAND, slightly Silty, slight ~~petroleum~~ HC-like odor
13' damp, med dense, dark brown MC-SAND, wood debris present substantial up to 4" long. ~~NO ODOR~~ slight ~~petroleum~~ HC-like odor, No Sheen
- water present on sides, spilled out with each cut
- ~~cut~~ drained from bottom prior to 8-12' cut

Notes:
location was under bridge, moved slightly.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS, RB, DG, JD
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: SC27
Attempt No. 1 of 1
Date: 3/2/10
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.7218
Long/Easting: 122 20.4839

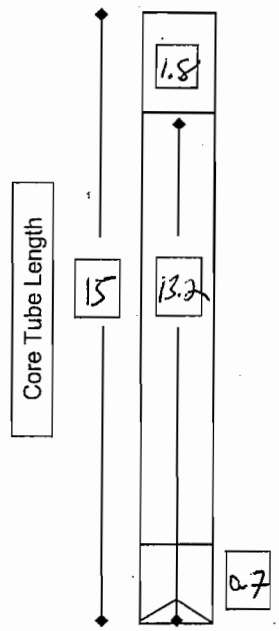
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 36.6

B. Water Level Measurements
Time: 935
Height: 5.4
Source: Nobletec Navigation

C. Mudline Elevation
31.2

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.8
Recovery Measurement: 13.2
Recovery Percentage: ~~13~~ 94%
Total Length of Core To Process: 12.6

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-12.6 C

Drive Notes:
Easy Penetration 0-8 ft
8-12 moderate penetration
12-14 Easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose. Med dense, dark gray, damp, f-SAND
0' very soft, wet, ~~dark~~ light gray/dark brown SILT, ~~w~~ occasional pieces of "charcoal-like" debris
Slight H_2S odor
4' Moist, medium stiff, dark gray, SILT, trace sand, moderate petroleum odor
8' moist, medium dense, dark brown silty SAND. Sand grain medium coarse and multi-colored. Slight H_2S odor
12.6' damp, dense dark brown. f-SAND. NO ODOR. occasional woody debris

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.	Station ID: SC29
Job No: 060003-01.17 Task 2	Attempt No. 1 of 1
Field Staff: MSS, RB, DG, JD	Date: 3/2/10
Contractor: ☐ AMEC ☒ MSS	Logged By: JD
Vertical Datum: feet MLLW	Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.7537 Long/Easting: 122 20.5811

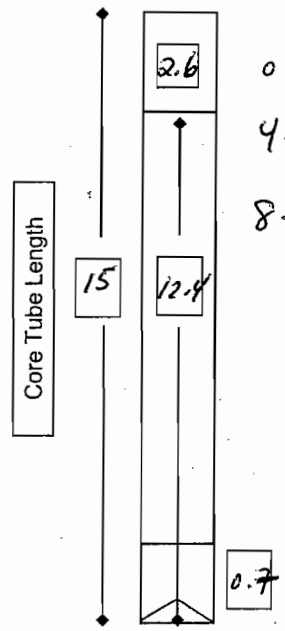
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 13.7

B. Water Level Measurements
Time: 1220
Height: 1.2'
Source: Nobletec Navigation

C. Mudline Elevation
12.5

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 2.6
Recovery Measurement: 12.4
Recovery Percentage: ~~86%~~ 89%
Total Length of Core To Process: 11.9

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-11.9 C

Drive Notes:
Easy Penetration
irregular bottom

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose moist, dark gray, stiff, sandy SILT. Strong ~~petroleum~~ HC like odor. slight sheen
0' wet, soft, light brown and dark brown SILT, slightly sandy. slight sheen on deck after opening
no odor, Moderate sheen debris
4' wet, freefall, very loose silty GRAVEL, Dark gray, H_2S strong odor, metallic
Sheen present. lost ~ 1" of material after opening
8' med stiff, moist sandy SILT, dark gray, slight metallic sheen, substantial
Shell debris, slight H_2S odor, trace wood fragment.
11.9' damp, dense, dark gray, silty VF-SAND, NO ODOR

Notes:
Bottom very uneven @ 13 ft off location

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MS, RB, DG, JD
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC30
Attempt No. 1 of 1
Date: 3/2/10
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.7681
Long/Easting: 122 20.5157

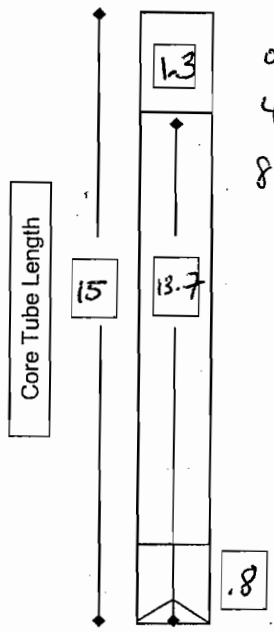
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 46.5

B. Water Level Measurements
Time: 1025
Height: 3.2
Source: Nobletec Navigation

C. Mudline Elevation
43.3

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.3
Recovery Measurement: 13.7
Recovery Percentage: 98%
Total Length of Core To Process: 13

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-13 C

Drive Notes:
5 ft of freefall
Easy penetration rest of way

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose - damp, dark gray, dense, vf SAND, NO ODOR
0' - wet, loose, light brown SILT, trace sand. NO ODOR
4' - moist, med. dense, dark brown silty SA vf-SAND, occasional wood debris. NO ODOR
8' - damp, dense, dark brown, vf-SAND, slightly silty. NO ODOR
13' - damp, dense, dark brown, vf-SAND, trace silt, NO ODOR

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.	Station ID: SC32
Job No: 060003-01.17 Task 2	Attempt No. 1 of 1
Field Staff: MSS, RB, DG, JD	Date: 3/2/10
Contractor: ☐ AMEC ☑ MSS	Logged By: JD
Vertical Datum: feet MLLW	Horizontal Datum: WGS 84

Field Collection Coordinates:

Lat/Northing: 4734.7777 Long/Easting: 122 20.6173

A. Water Depth

DTM Depth Sounder: —

DTM Lead Line: 40.5

B. Water Level Measurements

Time: 1315

Height: 2.1'

Source: Nobletec Navigation

C. Mudline Elevation

38.4'

Core Collection Recovery Details:

Core Accepted: (Yes) / No

Core Tube Length: 15

Drive Penetration: 14

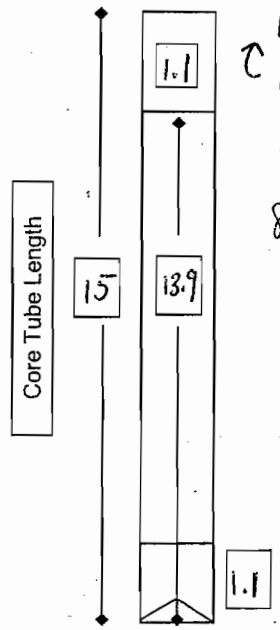
Headspace Measurement: 1.1

Recovery Measurement: 13.9

Recovery Percentage: 99%

Total Length of Core To Process: 13

Recovery Measurements (prior to cuts)



Keep upright

0-4 A + headspace

4-8 B

8-13 C

Drive Notes:

Easy penetration to ~~6'~~ 4'
moderately easy rest of way

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose damp, dense, dark gray, vf SAND. NO ODOR
0' No description didn't cut *
4' moist, med. dense, dark gray silt, slightly sandy, ~~petroleum~~ slight HC like odor present, slight sheen
8' damp, dense, dark gray slightly vf-sandy SILT. NO ODOR
13' damp, dense, brown, vf SAND. no odor.

Notes:

East wind, steep bottom / bank
* left headspace tube on because of large dent (couldn't cut with scoring tool)
stuffed aluminum foil in tube and kept upright at all times

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MCS, RB, DG, JD
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC33
Attempt No. 1 of 1
Date: 3/2/10
Logged By: JD
Horizontal Datum: WGS-84

Field Collection Coordinates:
Lat/Northing: ~~4734.7824~~ 4734.7820
Long/Easting: ~~122 20.5766~~ 122 20.5744

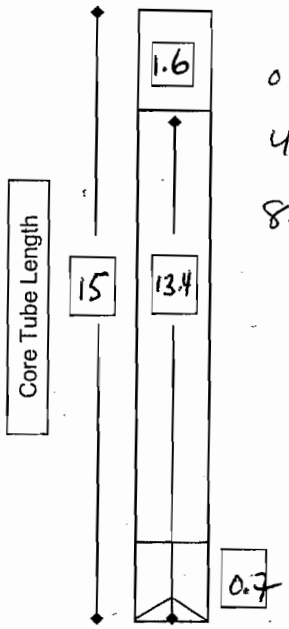
A. Water Depth
DTM Depth Sounder: –
DTM Lead Line: 34.4

B. Water Level Measurements
Time: 1110
Height: 1.9
Source: Nobletec Navigation

C. Mudline Elevation
32.5

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.6
Recovery Measurement: 13.4
Recovery Percentage: 96%
Total Length of Core To Process: 12.9

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-12.9 C

Drive Notes:
Easy 0-4
Moderate Easy 4-6
Moderate 6-7
Easy 7-14

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose - damp, dense, dark gray, vf-SAND. NO ODOR
0' wet, soft, brown, SILT, slightly sandy, organic debris present (occasional)
4' Damp, stiff, dark gray slightly sandy SILT. ~~Petroleum~~ HC like odor (slight) present
8' moist, dense, dark brown f-SAND, trace silt, H_2S odor. 5 Moderate wood debris
12.9' damp dense, dark gray vf SAND, slightly silty. NO ODOR

Notes:
GPS Reading was incorrect, changed to correct coordinates

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-51
Attempt No. 1 of 1
Date: 3/3/10
Logged By: DP
Horizontal Datum: ~~NAD83~~ DP WGS 84

Field Collection Coordinates:
Lat/Northing: 4735.2896
Long/Easting: 12220.7221

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 72.0

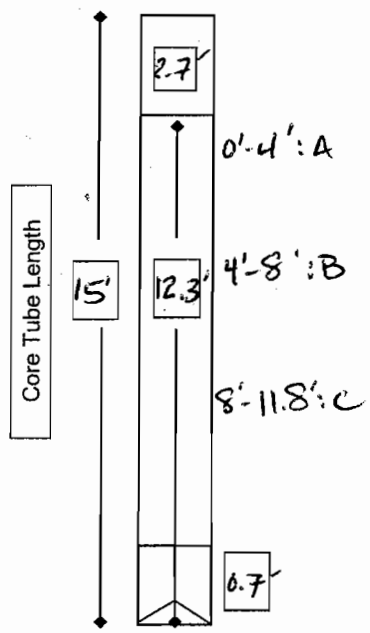
B. Water Level Measurements
Time: 0850
Height: 9.1'
Source: Nobletec Navigation

C. Mudline Elevation
62.9'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 2.7'
Recovery Measurement: 12.3'
Recovery Percentage: 88%
Total Length of Core To Process: 11.8'

Drive Notes: 1ft freefall. Easy, steady drive, easy penetration.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose empty
0': Gray wet silty, very fine-grain sand, medium dense, no odor, no sheen.
4': Dark grey, moist, soft, silt with trace very-fine grain sand. No odor, no sheen.
8': Dark grey, damp very fine grain sand, medium-dense, multicolored sand grains, no odor, no sheen.
bottom: Same as 8'

Notes:
Lost some material out of bottom of core. May be void space in section "C".

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC101
Attempt No. 2 of 2
Date: 3/3/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4735.2424
Long/Easting: 12220.7412

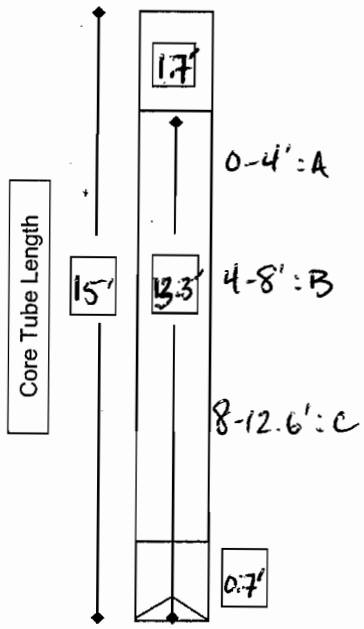
A. Water Depth
DTM Depth Sounder: –
DTM Lead Line: 62.2'

B. Water Level Measurements
Time: 0945
Height: 6.3'
Source: Nobletec Navigation

C. Mudline Elevation
55.9'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.7'
Recovery Measurement: ~~12.8'~~ 13.3'
Recovery Percentage: 95%
Total Length of Core To Process: 12.8'

Recovery Measurements (prior to cuts)



Drive Notes: Easy to moderate penetration. Steady drive.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In shoe: Dark grey, stiff slightly silty clay with trace fine grain sand. No odor, no sheen. Damp
0': Grey, loose, wet, silty sand (vf). Multicolored sand grains, no odor, no sheen.
4': Dark grey, damp, stiff silt with trace vf sand. No odor, no sheen
8': Dark grey, damp, stiff silt with trace vf grain sand. No odor no sheen
bottom of core: Dark grey, dense, vf grain sand, slightly silty. No odor, no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DL, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC100
Attempt No. 1 of 1
Date: 3/3/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4734.8212
Long/Easting: 12220.7434

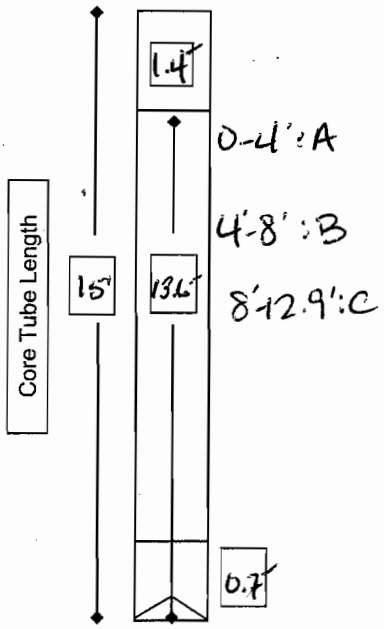
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 59.4

B. Water Level Measurements
Time: 1015
Height: 4.9'
Source: Nobletec Navigation

C. Mudline Elevation
54.5'

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.4
Recovery Measurement: 13.6'
Recovery Percentage: 97%
Total Length of Core To Process: 12.9'

Recovery Measurements (prior to cuts)



Drive Notes: DP
~~Easy penet~~ Moderately easy penetration ~1.5' free fall. Steady drive.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey med. dense slightly silty sand, multicolored grains.
0': Grey, soft, wet sandy silt. Grains are very fine to coarse grain.
4': Dark grey, dense, very fine grain sand. Grains are multicolored. Moist.
8': Dark grey, medium dense, moist, very fine grain sand. Multicolored grains.
bottom of core: Dark grey, dense, damp, very fine grain sand. Multicolored grains.
- No odor, no sheen in any section.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC26
Attempt No. 1 of 1
Date: 3/3/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4734.7064
Long/Easting: 12220.7443

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 55.0

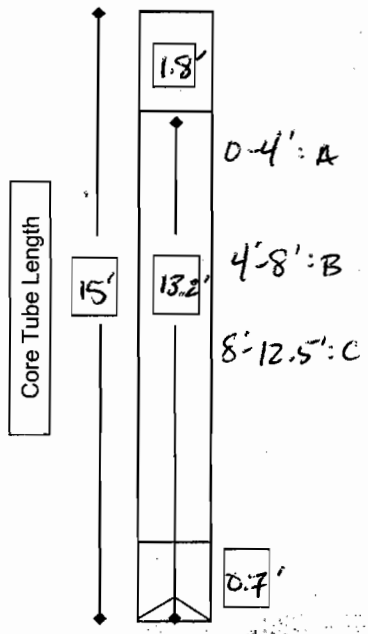
B. Water Level Measurements
Time: 1052
Height: 3.3'
Source: Nobletec Navigation

C. Mudline Elevation
51.7'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.8'
Recovery Measurement: 13.2'
Recovery Percentage: 94%
Total Length of Core To Process: 12.5'

Drive Notes: 2' free fall. Easy penetration. Steady drive.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, wet, loose very fine to fine grain sand. Grains are multicolored. No odor no sheen.
0': Light grey, very soft, wet slightly sandy silt. Grains are very fine. trace blebs of sheen. No odor.
4': Dark grey, dense, damp, fine grain sand. Grains are multicolored. No odor, no sheen.
8': Grey, stiff, damp clay with pockets of very fine-grain sand. Grains are multicolored. No odor, no sheen.
bottom of core: Grey, stiff, damp silty clay. No odor, no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: $EW10-SC13
Attempt No. 1 of 1
Date: 3/3/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4734.5133
Long/Easting: 12220.5848

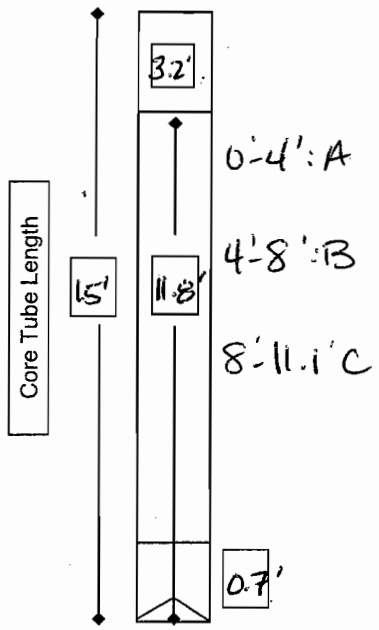
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 51.3'

B. Water Level Measurements
Time: 1200
Height: 1.0'
Source: Nobletec Navigation

C. Mudline Elevation
50.3'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 3.2'
Recovery Measurement: 11.8'
Recovery Percentage: 84%
Total Length of Core To Process: 11.1'

Recovery Measurements (prior to cuts)



Drive Notes: Moderate penetration. More difficult at ~8'.
0-3': Easy penetration
3'-7': Moderate penetration
7'-8': Easy penetration
8'-14': Moderate-hard penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: dark grey fine-grain sand with occasional shell. Sand grains are multicolored. No odor, no sheen.
0': Grey, wet, very loose silt. Trace metallic sheen ~~blebs~~, no odor.
4': Grey, dense, medium to coarse grain (fill) sand with trace gravel. Grains are white, black, grey and beige. Moist. No odor, no sheen.
8': Dark grey, stiff clay, trace HC like odor. No sheen.
Bottom of core: Dark grey fi very fine grain sand with large pocket of silt (~30% surface). Dense, damp, multicolored.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC48
Attempt No. 1 of 1
Date: 3/4/10
Logged By: DP
Horizontal Datum: WGS 84

48
.58672
.343138

Field Collection Coordinates:
Lat/Northing: 4735.2034
Long/Easting: 12220.5883

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 37.5'

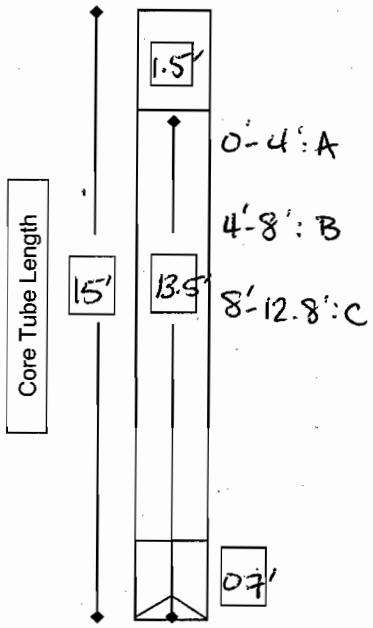
B. Water Level Measurements
Time: 1126
Height: 3.1'
Source: Nobletec Navigation

C. Mudline Elevation
34.4'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.5'
Recovery Measurement: 13.5'
Recovery Percentage: 96%
Total Length of Core To Process: 12.8'

Drive Notes: ~4' freefall. Hit piece of debris at 6'. Easy penetration. Hit something at 3' (debris?) - medium

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, moist, medium dense, very fine grain sand. Sand grains are multicolored. No odor, no sheen.
0': Brown, soft, wet, sandy silt. No odor, no sheen. Trace worm tubes on surface.
4': Very dark grey clayey silt with trace fine grain sand. medium dense, damp. Moderate HC like odor, trace metallic sheen.
8': Dark grey, medium dense, moist very fine grain sand. Grains are multicolored. No odor, no sheen.
Bottom of core: Dark grey, medium dense, damp very fine grain sand. with occasional wood. Grains are multicolored. No odor no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10 - SC50
Attempt No. 1 of 1
Date: 3/4/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4735.2726
Long/Easting: 12220.5933

A. Water Depth
DTM Depth Sounder: –
DTM Lead Line: 44.8'

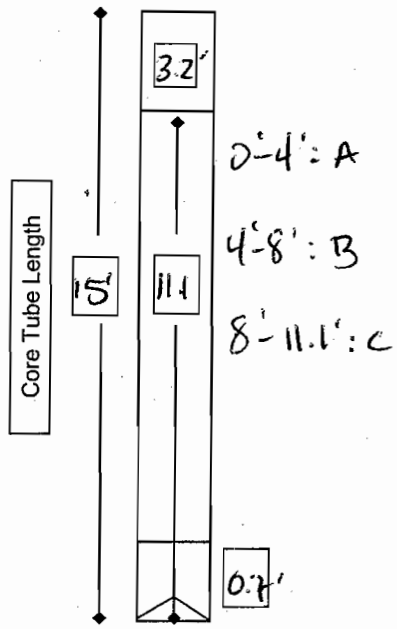
B. Water Level Measurements
Time: 1006
Height: 7.2'
Source: Nobletec Navigation

C. Mudline Elevation
37.6'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 3.2'
Recovery Measurement: 11.8'
Recovery Percentage: 84%
Total Length of Core To Process: 11.1'

Drive Notes: 2' free fall. Easy penetration

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, moist slightly silty very fine grain sand. No odor, no sheen.
0': Brown, wet, soft slightly sandy silt with trace wood chips. Sand grains are very fine. No odor, no sheen.
4': Grey, medium stiff, damp clay w/ trace fine-grain sand. No odor, no sheen
8': Grey, stiff ~~clay with~~ slightly sandy clay. Sand grains are very fine grain. No odor, no sheen.
Bottom of core: Dark grey, damp, stiff, slightly clayey silt with trace very fine grain sand. No odor, no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC52
Attempt No. 1 of 1
Date: 3/4/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 9735.3094
Long/Easting: 12220.5884

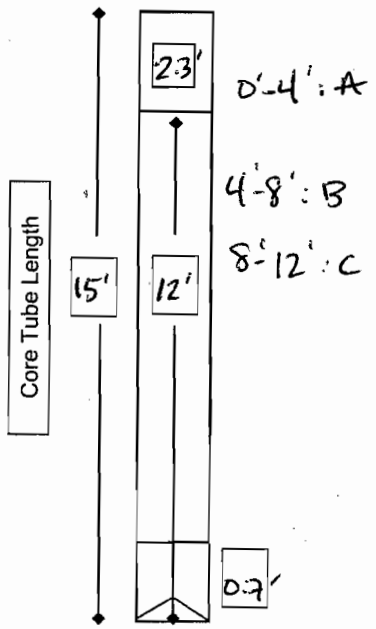
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 41.7'

B. Water Level Measurements
Time: 0926
Height: 8.5'
Source: Nobletec Navigation

C. Mudline Elevation
33.2'

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 2.3'
Recovery Measurement: 12.7'
Recovery Percentage: 91%
Total Length of Core To Process: 12.0'

Recovery Measurements (prior to cuts)



Drive Notes: At base of steep slope. Hit debris at first then steady, easy penetration. Hit debris ~2.5'

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Inose: Dark grey, medium dense, very fine grain sand with trace silt. Moist. Sand grains are multicolored. No odor, no sheen.
0': Dark brown, wet, loose slightly sandy silt. Sand grains are very fine grain. No odor, trace metallic sheen.
4': Dark grey, moist, medium dense, silty very fine-grain sand. Slight H_2S, no sheen.
8': Dark grey, medium dense, moist, very fine grain sand. No odor, no sheen.
Bottom of core: Dark grey, medium dense, moist, very fine grain sand. Sand grains are multicolored. No odor, no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC53
Attempt No. 1 of 1
Date: 3/4/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4735.3405
Long/Easting: 12220.6311

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 60.3

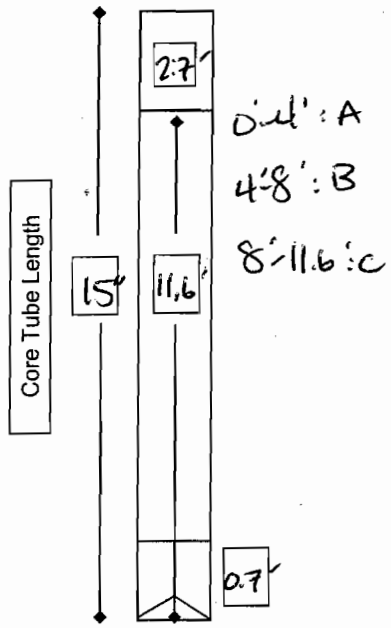
B. Water Level Measurements
Time: 1043
Height: 5.1'
Source: Nobletec Navigation

C. Mudline Elevation
55.2'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 2.7'
Recovery Measurement: 12.3'
Recovery Percentage: 88%
Total Length of Core To Process: 11.6'

Drive Notes: ~4' freefall. Easy penetration

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, loose, wet, very fine grain sand. Grains are multicolored. No odor, no sheen.
0': Brown, wet, very soft sandy silt. No odor, no sheen.
4': Dark grey, medium stiff, damp sandy silt with trace clay and trace decomposed wood. No odor, no sheen.
8': Dark grey, medium dense, damp, very fine grain sand. Sand grains are ~~very fine~~ multicolored. No odor, no sheen.
Bottom of core: Dark grey, medium dense, damp, very fine grain sand. Multi-colored sand grains. No odor, no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC54
Attempt No. 1 of 1
Date: 3/4/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4735, 3591
Long/Easting: 12220, 5797

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 20.5'

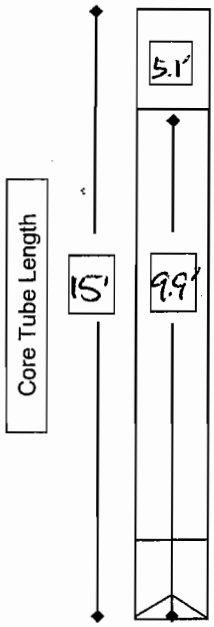
B. Water Level Measurements
Time: 0845
Height: 10.2'
Source: Nobletec Navigation

C. Mudline Elevation
10.3'

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 5.1'
Recovery Measurement: 9.9'
Recovery Percentage: 71%
Total Length of Core To Process: 9.2'

Drive Notes: Moderate penetration 0-6'
Hard penetration 6-12'
moderate penetration 12-14'
Long drive.
Hit debris 2'-3' hard drive then moderate ~~at to~~ 12'.

Recovery Measurements (prior to cuts)



0-4': A
~~4-8': B~~
4-9.2': B
~~8'-9.2': C~~
DP
- No "C"

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, moist slightly sandy silt with trace clay. Sand grains are very fine. Strong H_2S, no sheen
0': Dark grey, wet, very soft, very sandy silt. Sand grains are very fine to medium grain. Slight metallic sheen, no odor
4': Dark grey, damp, medium stiff clay. Strong H_2S odor, slight HC-like odor. No sheen.
8': Bottom of core: Dark grey, clayey silt with trace fine-grain sand. No odor, no sheen.

Notes:
Vibrated extra long time - probably lots of mixing in outer edges.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC22
Attempt No. 1 of 1
Date: 3/5/10
Logged By: DP
Horizontal Datum: WGS 24

Field Collection Coordinates:
Lat/Northing: 4734.6681
Long/Easting: 12220.6983

A. Water Depth
DTM Depth Sounder: –
DTM Lead Line: 62.7'

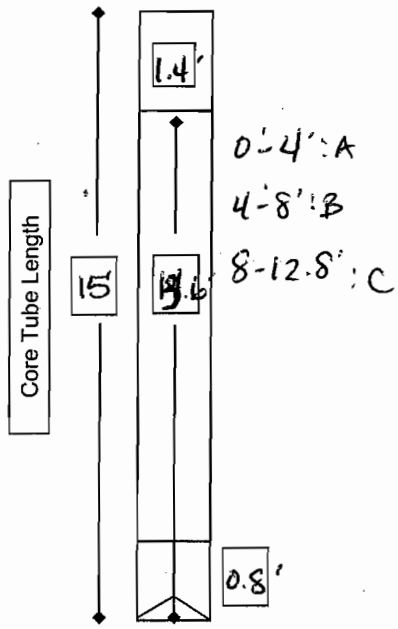
B. Water Level Measurements
Time: 1015
Height: 8.1'
Source: Nobletec Navigation

C. Mudline Elevation
54.6'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.4'
Recovery Measurement: 13.6'
Recovery Percentage: 97%
Total Length of Core To Process: 12.8'

Drive Notes: ~2' freefall. Easy, steady drive.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose empty.
0': Grey, very loose, wet silt with trace very fine grain sand. No odor, no sheen.
4': Dark grey medium dense, wet, very fine grain sand. No odor, no sheen. Sand grains are multicolored.
8': Dark grey, slightly clayey very fine grain sand. Moist, medium dense. No odor, no sheen.
Bottom of core: Grey, stiff, silty clay with trace very fine grain sand. No odor, no sheen.

Notes:
Core expanded out ~1" when cut at 8'.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10 - Sec24
Attempt No. 1 of 1
Date: 3/5/10
Logged By: DP
Horizontal Datum: WGS 24

Field Collection Coordinates:
Lat/Northing: 4734.6917
Long/Easting: 12220.5952

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 59.0'

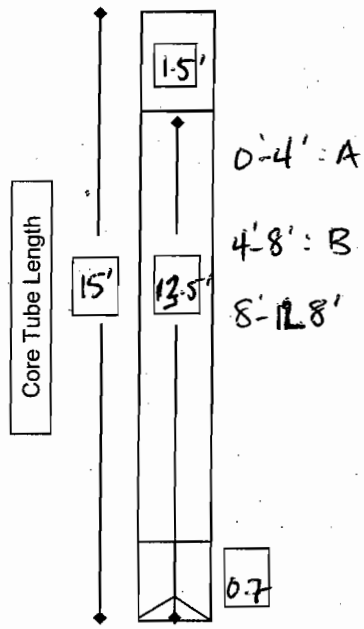
B. Water Level Measurements
Time: 0900
Height: 10.5'
Source: Nobletec Navigation

C. Mudline Elevation
48.5'

Core Collection/Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.5'
Recovery Measurement: ~~12.5'~~ 13.5'
Recovery Percentage: ~~84%~~ 96%
Total Length of Core To Process: 12.8'

Drive Notes: 5' freefall. Easy penetration

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, medium dense, moist very fine grain sand. Slight H_2S odor, no sheen
0': Brown, loose, wet silt with trace very fine grain sand. Moderate H_2S odor, no sheen.
4': Dark grey, soft, damp, slightly sandy silt. Sand grains are very fine. Moderate H_2S, no sheen.
8': Grey, stiff clay. Damp. No odor, no sheen.
Bottom of core: Grey, dense, damp clayey sand. Sand grains are very fine. No odor no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC25
Attempt No. 1 of 1
Date: 3/5/10
Logged By: DP
Horizontal Datum: WGS 24

Field Collection Coordinates:
Lat/Northing: 4734.6997
Long/Easting: 12220.6465

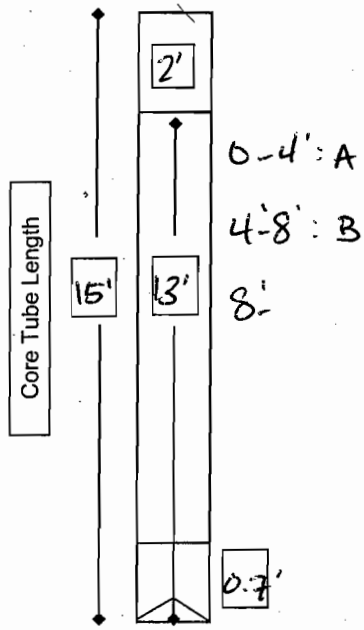
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 62.2'

B. Water Level Measurements
Time: 0936
Height: 9.4'
Source: Nobletec Navigation

C. Mudline Elevation
52.8'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 2'
Recovery Measurement: 13'
Recovery Percentage: 93%
Total Length of Core To Process: 12.3'

Recovery Measurements (prior to cuts)



Drive Notes: ~1' freefall. 0-2' easy moderate penetration. Easy penetration to 10'. Inkling of something at 10'. Easy penetration to 14'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, soft, wet slightly sandy silt with trace gravel. Slight H_2S odor, no sheen.
0': Brown, very loose, wet silt with trace very fine grain sand. No odor, no sheen.
4': Grey, damp, stiff clay with trace silt. No odor, no sheen.
8': Grey, damp, stiff clay. No odor, no sheen.
Bottom of core: Grey, damp, stiff clay. No odor, no sheen.

Notes:
Material expanded ~1" out at 4' when core was cut.
8'

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10 - SC28
Attempt No. 1 of 1
Date: 3/5/10
Logged By: DP
Horizontal Datum: WGS 24

Field Collection Coordinates:
Lat/Northing: 4734.7458
Long/Easting: 12220.65498

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 60.0'

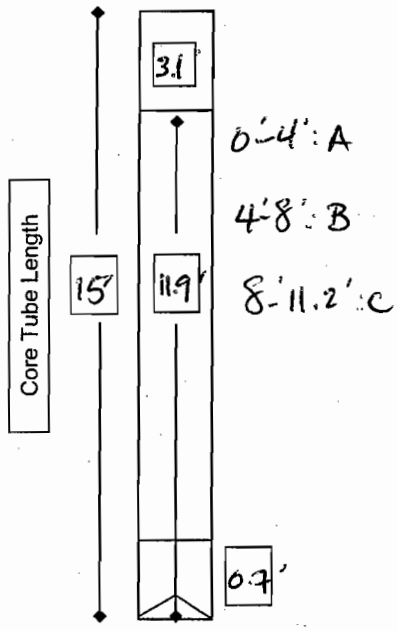
B. Water Level Measurements
Time: 1055
Height: 6.4'
Source: Nobletec Navigation

C. Mudline Elevation
55.6'

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 3.1'
Recovery Measurement: 11.9'
Recovery Percentage: 85%
Total Length of Core To Process: 11.2'

Drive Notes: ~2½' freefall. Easy, steady drive.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Gray, moist, medium dense clayey very fine grain sand. No odor, no sheen.
0': Brown, very ~~loose~~ soft, wet slightly sandy silt. Sand grains are very fine to fine. No odor, no sheen.
4': Dark grey dense slightly sandy silt. Moderate HC odor, no sheen.
8': Grey stiff, damp silty clay. No odor, no sheen.
Bottom of core: Dark gray, damp, stiff very clayey silt with trace fine grain sand. No odor, no sheen.

Notes:
Core expanded several inches when cut at 4'- piece separated from core - collected separately in foil, labeled "SC28-B2". Expanded less at 8'.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: RB, DG, DP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: EW10-SC31
Attempt No. 1 of 1
Date: 3/5/10
Logged By: DP
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4734.7676
Long/Easting: 12220.7128

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 59.5'

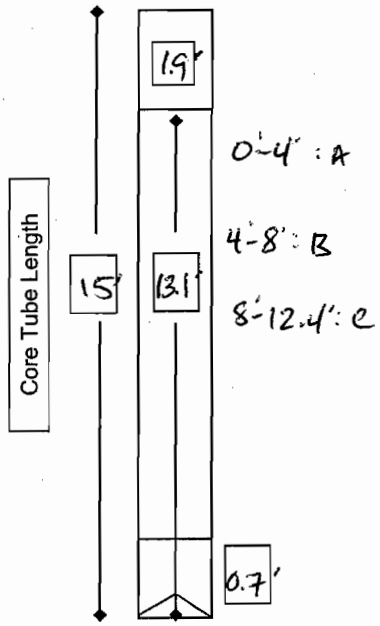
B. Water Level Measurements
Time: 1136
Height: 4.7'
Source: Nobletec Navigation

C. Mudline Elevation
55.2'

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1.9'
Recovery Measurement: 13.1'
Recovery Percentage: 94%
Total Length of Core To Process: 12.4'

Drive Notes: ~1' freefall. Easy, steady drive
Easy penetration.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: dark grey, moist, loose very fine grain sand. No odor, no sheen.
0': Brown, very soft, wet sandy silt. Sand grains are coarse. No odor no sheen.
4': Dark grey, Moist, clayey sand. No odor, no sheen. medium stiff.
8': Dark grey, moist, medium dense very fine grain sand. Grains are Multicolored.
Bottom of core: Grey, stiff, damp, silt with trace clay and trace very fine grain sand. No odor, No sheen.

Notes:

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Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC 16
Attempt No. 1 of 1
Date: 3/8/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.5631
Long/Easting: 122 20.6338

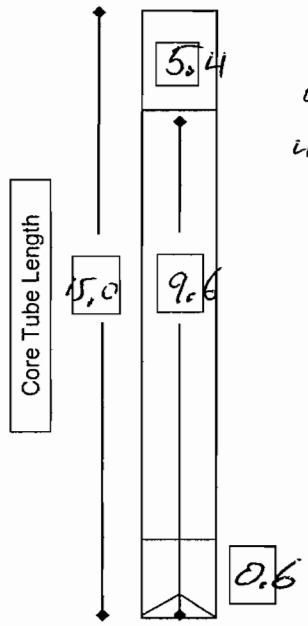
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 52.8

B. Water Level Measurements
Time: 0850
Height: 9.5
Source: Nobletec Navigation

C. Mudline Elevation
43.3

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15
Drive Penetration: 13.2
Headspace Measurement: 5.4
Recovery Measurement: 9.6
Recovery Percentage: 76
Total Length of Core To Process: ~~9.1~~ 8.1

Recovery Measurements (prior to cuts)



0-4 A
4-9.1 B

Drive Notes:
easy penetration and refusal at 13.2

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose - dark gray moderately dense fine SAND with trace Silt moist no odor no sheen.
0 Soft wet dark Brown SILT H_2S moderate no sheen
4' Dark gray medium dense Fine SAND with moderate Silt no odor no sheen
9.1' Dark gray medium dense Fine SAND, trace Silt

Notes:
1.0' gap above fingers, re cut 1' off Bottom of B section for an even 4' B section

DG.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC 14
Attempt No. 1 of 1
Date: 3/8/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.5533
Long/Easting: 122 20.5912

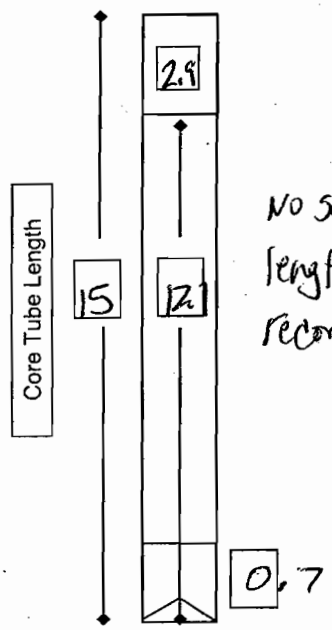
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 60.0

B. Water Level Measurements
Time: 0945
Height: 9.5
Source: Nobletec Navigation

C. Mudline Elevation
50.5

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14.0
Headspace Measurement: 2.9
Recovery Measurement: 12.1
Recovery Percentage: 95.8
Total Length of Core To Process: 11.6

Recovery Measurements (prior to cuts)



No section lengths recorded -LM

Drive Notes:
2 ft of freefall.
2-6 easy penetration
6-14' moderately easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose medium stiff moist dark gray SILT with occasional sand no odor no sheen
0' Soft wet Brown SILT slight H_2S no sheen
4' medium stiff clayey SILT moist no H_2S no sheen Dark olive
8' medium dense moist multi colored SAND no odor no sheen
11.6' medium dense moist Fine SAND with Dark Olive Substantial silt. no odor no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC17
Attempt No. 1 of 1
Date: 3/8/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.5673
Long/Easting: 122 20.6887

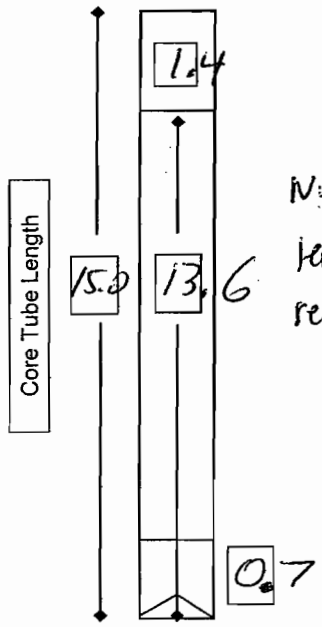
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 54.0

B. Water Level Measurements
Time: 1030
Height: 9.4
Source: Nobletec Navigation

C. Mudline Elevation
53.6

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.4
Recovery Measurement: 13.6
Recovery Percentage: 97
Total Length of Core To Process: 13.0

Recovery Measurements (prior to cuts)



No section lengths recorded ZM

Drive Notes:
5' to 6' freefall
moderately easy remainder to 14

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose - moderately stiff dark olive moist sandy SILT no odor no sheen
0' Brown, soft, wet SILT no odor no sheen
4' Dark olive moist moderately stiff SILT. Slight Sheen, Petroleum odor moderate
8' Dark olive moist moderately stiff SILT slight Sheen, Petroleum odor moderate.
13' Dark multicolored grain Fine Sand, moist no odor no sheen

Notes:

DG.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff:
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: SC-09
Attempt No. 1 of 1
Date: 3/8/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.4206
Long/Easting: 122 20.5875

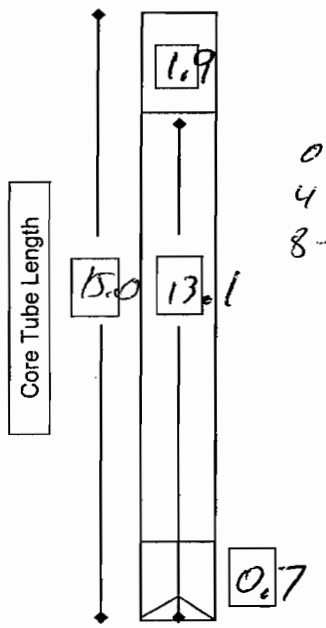
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 46.3

B. Water Level Measurements
Time: 1135
Height: 8.7
Source: Nobletec Navigation

C. Mudline Elevation
37.6

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.9
Recovery Measurement: 13.1
Recovery Percentage: 96
Total Length of Core To Process: 12.5

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-12.5 C

Drive Notes:
6' freefall
moderately easy to Bottom

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose. moderately dense SAND, Dark olive trace silt. chemical odor no sheen.
0' Soft, wet, Brown SILT, trace shell, slight H_2S odor no sheen
4' very dark olive, moist moderately stiff SILT with occosional shell. Slight H_2S no sheen
8' moist medium dense fine SAND with trace silt chemical odor slight sheen.
12.5 moist dense fine SAND with multi colored grains no odor no sheen.

Notes:
approx 60' from station target to South.

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-34
Attempt No. 1 of 1
Date: 3/8/10
Logged By: DG
Horizontal Datum: WGS-84

Field Collection Coordinates:
Lat/Northing: 47 34.8218
Long/Easting: 122 20.6839

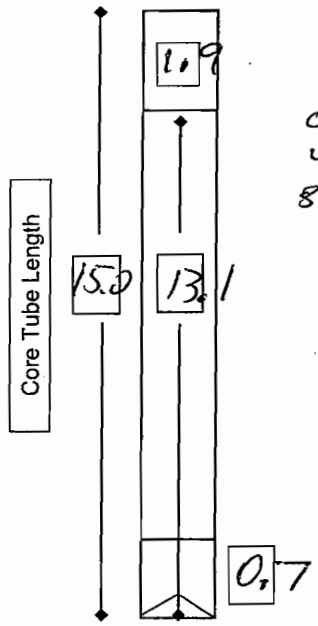
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 62.0

B. Water Level Measurements
Time: 1250
Height: 7.3
Source: Nobletec Navigation

C. Mudline Elevation
54.7

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.9
Recovery Measurement: 13.1
Recovery Percentage: 94
Total Length of Core To Process: 12.4

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-12.4 C

Drive Notes:
easy penetration

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose dark olive moist moderately dense fine SAND no odor no sheen - multicolored grains
0' Soft wet Brown SILT with substantial coarse grain Sand, no odor no sheen
4' moist moderately dense Fine SAND no odor no sheen multicolored grains apparent
8' moist medium Stiff clayey SILT no odor no sheen
12.4 moist medium dense fine Sand, multicolored grains no odor no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC 36
Attempt No. 1 of 1
Date: DG 3/8/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 34.8914
Long/Easting: 122 20.6410

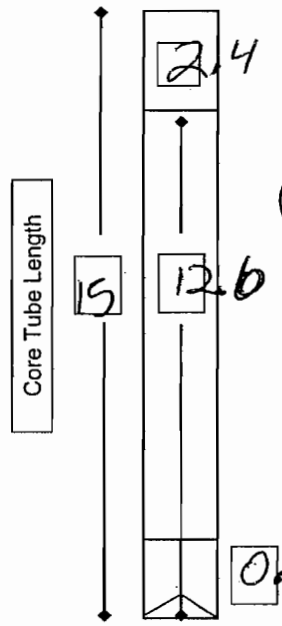
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 58.3

B. Water Level Measurements
Time: 1330
Height: 6.2
Source: Nobletec Navigation

C. Mudline Elevation
52.1

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 2.4
Recovery Measurement: 12.6
Recovery Percentage:
Total Length of Core To Process: 12.0

Recovery Measurements (prior to cuts)



No section lengths recorded -LM

Drive Notes:
moderately easy through lenth to 14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose olive moist moderately dense fine Sand, multicolored grains
0' Brown wet soft silt with moderate Sand no odor no sheen
4' Brown moist medium dense Fine SAND with occasional silt. no odor no sheen
8' Brow moist mod. Dense SANF with occasional Silt no odor no sheen
12.0 Brown multicolored moist medium dense SAND no odor no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-39
Attempt No. 1 of 1
Date: 3/8/10
Logged By: DG
Horizontal Datum: WGS

Field Collection Coordinates:
Lat/Northing: 47, 34, 9404
Long/Easting: 122 20.6980

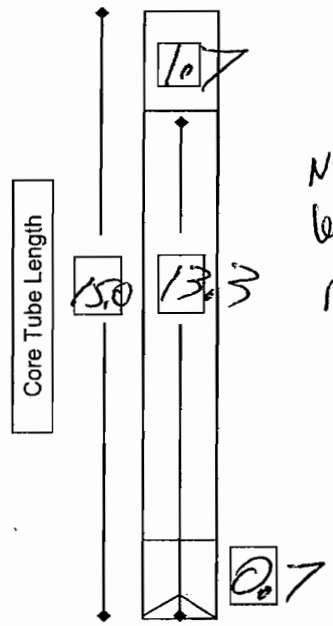
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 60.7

B. Water Level Measurements
Time: 1350
Height: 5.7
Source: Nobletec Navigation

C. Mudline Elevation
55.0

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.7
Recovery Measurement: 13.3
Recovery Percentage:
Total Length of Core To Process: 12.8

Recovery Measurements (prior to cuts)



No section lengths recorded -LM

Drive Notes:
easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose moist dark olive SAND with moderate Silt
no odor no sheen
0'-2' Soft Brown wet SILT with occassional Sand
no odor no sheen
4' Olive moist medium stiff sandy SILT
no odor no sheen
8 moist medium Dense olive fine SAND no
odor no sheen trace woody material
12.8

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MK
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-40
Attempt No. 1 of 1
Date: 3/9/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.0035
Long/Easting: 122 20.6925

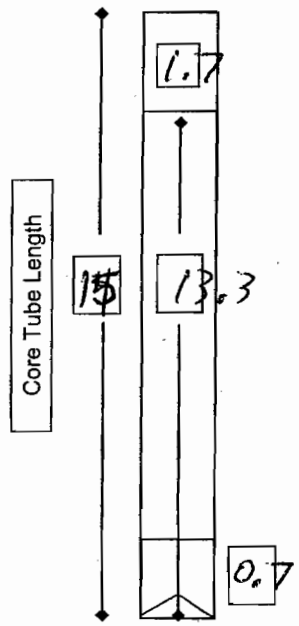
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 63.9

B. Water Level Measurements
Time: 0845
Height: DG ~~[illegible]~~ 8.1
Source: Nobletec Navigation

C. Mudline Elevation
DG ~~[illegible]~~ 55.8

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.7
Recovery Measurement: 13.3
Recovery Percentage: 95
Total Length of Core To Process: 12.8

Recovery Measurements (prior to cuts)



3 sections

Drive Notes:
Moderately easy penetration

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose dark olive moist medium dense fine SAND
no odor no sheen
0' Brown soft wet SILT, trace sand slight H_2S no sheen
4' dark olive moist medium stiff SILT with occasional sand slight H_2S no sheen
8' wet medium dense olive SAND occasional silt
no odor no sheen
12.8 moist medium dense olive fine SAND occasional silt
no odor no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MJ
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-42
Attempt No. 2 of 2
Date: 3/9/10
Logged By: DG
Horizontal Datum: WGS 84

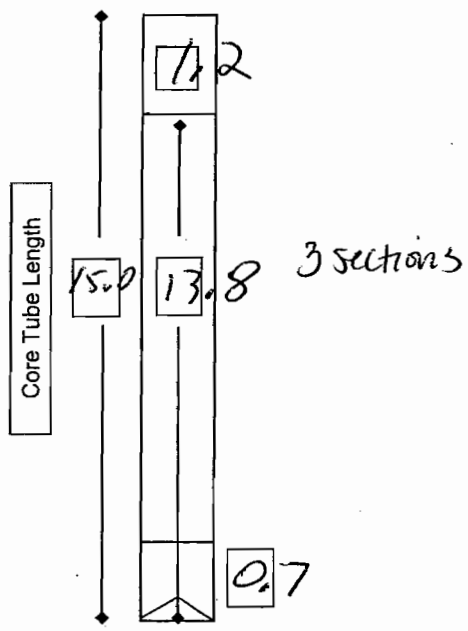
Field Collection Coordinates:
Lat/Northing: 47 35.0575 Long/Easting: 122 20.6739 #2

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 64.9
#2 64.0

B. Water Level Measurements
Time: 925
Height: 8.5
Source: ~~Noblitec~~ Navigation
0950 8.6 #2

C. Mudline Elevation
56.4 #1
55.4 #2
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
Core Accepted: (Yes) No #2
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.2
Recovery Measurement: 13.8
Recovery Percentage:
Total Length of Core To Process: 13.1



Drive Notes:
easy to 6'
Hard penetration to 7' then
easy penetration to 14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose - moist olive medium dense SAND with occasional Silt
0' Brown wet medium stiff ~~CL~~ SILT with trace Sand
trace wood debris slight H_2S no sheen.
4' moist olive Soft SILT with occasional clay no odor
no sheen
8' moist dense olive SAND with occasional silt no odor
no sheen
13.1 Gray Dense SAND no odor no sheen - colored grains

Notes:
6' penetration on attempt 1 to refusal. Dense SAND in nose
Second attemp hit similar dense material at 6' but successful
to push through
#1 47 35.0564 122 20.6702

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MR
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-44
Attempt No. 1 of 1
Date: 3/9/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.1233
Long/Easting: 122 20.6794

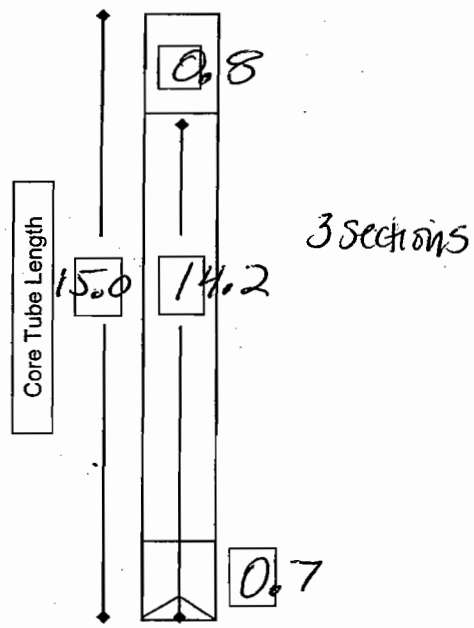
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 63.4

B. Water Level Measurements
Time: 1035
Height: 8.9
Source: Nobletec Navigation

C. Mudline Elevation
54.5

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 0.8
Recovery Measurement: 14.2
Recovery Percentage: 100+
Total Length of Core To Process: 13.6

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose wet Silty SAND dark olive no odor no sheen
0' wet olive dense SAND with trace wood and trace silt no odor no sheen
4' gray moist medium dense SAND no odor no ~~trace~~ sheen. multicolored grains
2' moist to wet gray SAND with occassional silt no odor no sheen
13.6 moist Dark olive dense fine SAND no odor no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-47
Attempt No. 1 of 1
Date: 3/9/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.1992
Long/Easting: 122 20.6635

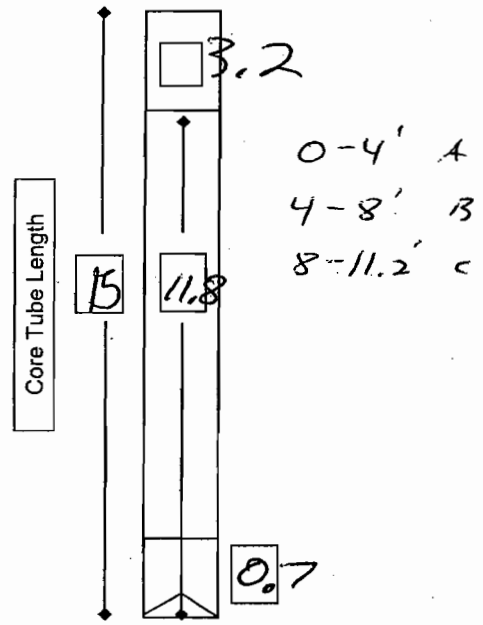
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 63.7

B. Water Level Measurements
Time: 1115
Height: 9.0
Source: Nobletec Navigation

C. Mudline Elevation
54.7

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 3.2
Recovery Measurement: 11.8
Recovery Percentage: 84
Total Length of Core To Process: 11.2

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration to 6.5'
hard penetration to 8.5'
easy penetration to 14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose- dark olive wet SAND trace shell and clay chancks no odor no sheen
0' wet Brown loose SAND trace woody occasional silt no odor no sheen
4' wet Dense Olive SAND with Trace Shell and small clay inclusions. multicolored grains
8' wet Dense olive SAND with occassional shell no odor no sheen
11.2' wet Dense olive SAND occasional shell and trace small clay inclusions

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG PM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-49
Attempt No. 1 of 1
Date: 3/9/10
Logged By: DG
Horizontal Datum:

Field Collection Coordinates:
Lat/Northing: 47 35.2525
Long/Easting: 122 20.6690

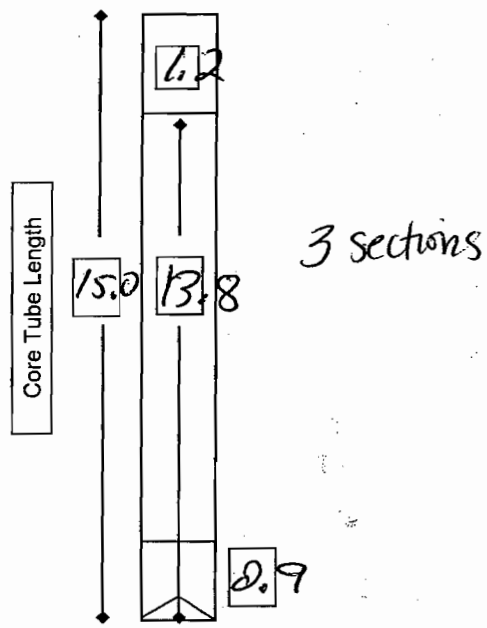
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 63.7

B. Water Level Measurements
Time: 1230
Height: 8.6
Source: Nobletec Navigation

C. Mudline Elevation
54.1

Core Collection Recovery Details:
Core Accepted? (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.2
Recovery Measurement: 13.8
Recovery Percentage: 99
Total Length of Core To Process: 13

Recovery Measurements (prior to cuts)



Drive Notes:
4' easy penetration
thin section of hard penetration
moderate penetration to 14'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose – empty with gray Brown silty Sand remnants
0' - Soft Wet Brown SILT with occasional sand. no odor no sheen trace woody material
4' medium dense olive moist to wet SAND with moderate Silt, no odor no sheen
8' moist Dark olive Sandy SILT no odor no sheen
13' Dark olive moist Fine SAND with moderate Silt no odor no sheen, Stiff

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-56
Attempt No. 1 of 1
Date: 3/9/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 36.3700
Long/Easting: 122 20.6849

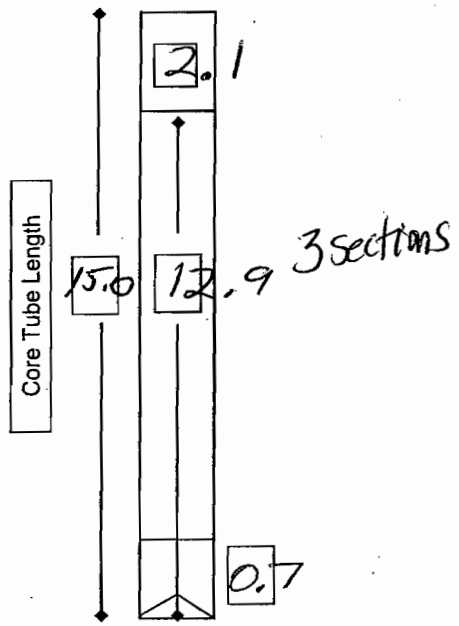
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 64.0

B. Water Level Measurements
Time: 1310
Height: 8.0
Source: Nobletec Navigation

C. Mudline Elevation
56.0

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 2.1
Recovery Measurement: 12.9
Recovery Percentage: 92
Total Length of Core To Process: 12.5

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose - wet medium dense fine SAND trace Silt multicolored grains no odor no sheen
0' wet medium dense fine SAND trace Silt no odor no sheen
4' wet medium dense fine SAND trace silt no odor no sheen multicolored grains
8' wet medium dense SAND trace silt no odor no sheen olive
12.5' wet medium dense SAND with moderate silt. no odor no sheen.

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: DG DM MY
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC-62
Attempt No. 1 of 1
Date: 3/9/10
Logged By: DG
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.4655
Long/Easting: 122 20.7329

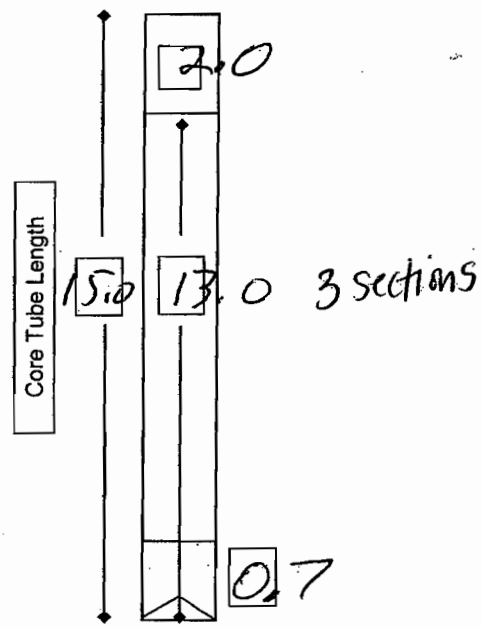
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 61.7

B. Water Level Measurements
Time: 1350
Height: 7.3
Source: Nobletec Navigation

C. Mudline Elevation
54.4

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 2.0
Recovery Measurement: 13
Recovery Percentage: 93
Total Length of Core To Process: 12.4

Recovery Measurements (prior to cuts)



Drive Notes:
easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

nose very dark olive wet SAND trace Silt. no odor no sheen.
0' Brown wet Loose Sand ocassional silt, trace wood material no odor no sheen
4' olive wet medium dense SAND moderate Silt no odor no sheen
8' olive wet to moist SAND moderate Silt no odor no sheen.
12.4' olive medium dense fine SAND NO odor no sheen

Notes:

ANCHOR QEA

Sediment Core Collection Log

Page 1 of __

Job: East Waterway - Subsurface Inv.	Station ID: SC57
Job No: 060003-01.17 Task 2	Attempt No. 1 of 1
Field Staff: MSS, JD, DG, SF	Date: 3/1/10
Contractor: ☐ AMEC ☑ MSS	Logged By: JD
Vertical Datum: feet MLLW	Horizontal Datum:

Field Collection Coordinates:

Lat/Northing: 47 35.4091 Long/Easting: 122 20.5095

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: 44.0

B. Water Level Measurements

Time: 1035

Height: 2.8

Source: Nobletec Navigation

C. Mudline Elevation

41.2

Core Collection Recovery Details:

Core Accepted: (Yes) No

Core Tube Length: 15

Drive Penetration: 14

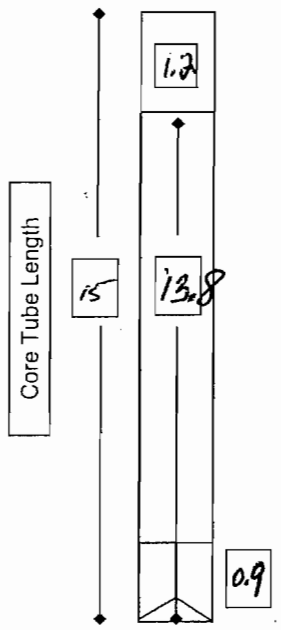
Headspace Measurement: 1.2

Recovery Measurement: 13.8

Recovery Percentage: 99%

Total Length of Core To Process: 13

Recovery Measurements (prior to cuts)



0-4 A

4-8 B

8-13 C

Drive Notes:

Very Easy penetration

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose is Empty

0' lost a couple inches because cut too short wet, loose, silty fine Sand, slight petroleum odor, worm tubes (trace)

4' ~~max~~ Water present after Cutting. m. coarse sand, med dense, no odor Sand grains multicolored

8' dense damp Silty vf Sand, grains multicolored

NOSE END is dense, dark gray fine Sand

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.	Station ID: SC-58
Job No: 060003-01.17 Task 2	Attempt No. 2 of 2
Field Staff: MSS J.D D.G. S.F.	Date: 3/1/10
Contractor: ☐ AMEC ☒ MSS	Logged By: DG
Vertical Datum: feet MLLW	Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.4216 Long/Easting: 122 20.320

A. Water Depth
DTM Depth Sounder: –
DTM Lead Line: 41.0

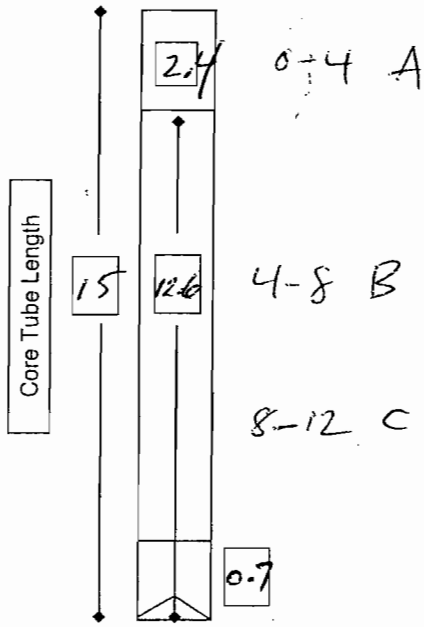
B. Water Level Measurements
Time: 0855
Height: 6.2
Source: Nobletec Navigation

C. Mudline Elevation
~~34.2~~ 34.8

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 2.4
Recovery Measurement: 12.6
Recovery Percentage: 90
Total Length of Core To Process: 12

Drive Notes: debris at surface
moderate drive down after
breaking through debris

Recovery Measurements (prior to cuts)



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose has gray, fine, damp sand
0' Sheen present, Soft wet black silt, occasional woody debris, Strong petroleum-like odor
4' Substantial Sheen present, Strong petroleum-like odor
dark brown fine sandy silt, moderate woody debris
8' moist coarse sand dark brown, trace wood, trace gravel
No odor, Med. Dense
after cutting Nose has dense dark brown sand with multi-colored grains
No odor, No sheen

Notes:
Attempt #1 47 35.4221 refusal at surface
122 20.3195

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS, DG, JD, SP
Contractor: ☐ AMEC ☑ MSS
Vertical Datum: feet MLLW

Station ID: SC59
Attempt No. 1 of 1
Date: 3/1/16
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.4211
Long/Easting: 122 20.4340

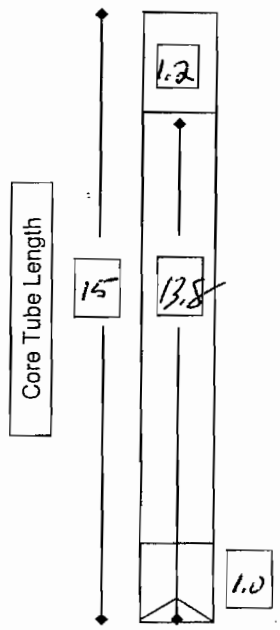
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.6

B. Water Level Measurements
Time: 0955
Height: 3.7
Source: Nobletec Navigation

C. Mudline Elevation
42.9

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.2
Recovery Measurement: 13.8
Recovery Percentage: ~~14~~ 99%
Total Length of Core To Process: ~~12~~ 13

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-13 C

Drive Notes: Easy penetration

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose is empty, remnants of fine sand
0' light brown, f-sandy silt, wet, NO ODOR, few gravels
4' Dense dark brown fine sand with trace silt NO ODOR
8' Dense dark brown vf sand, occasional silt NO ODOR
Nose has ~~sand~~ dense damp ~~vf~~ sand (multicolored grains)

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS, JD, SF, DG
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC60
Attempt No. 1 of 1
Date: 3/1/10
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 4735.4209
Long/Easting: 122 20.5474

A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 46.1

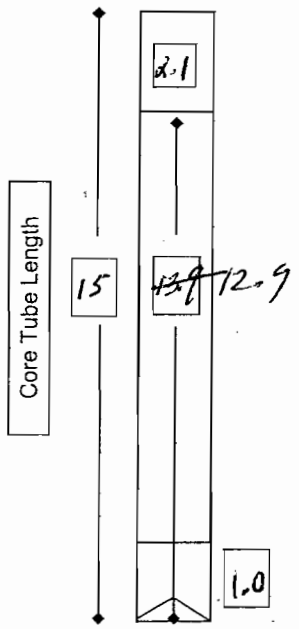
B. Water Level Measurements
Time: 1115
Height: 2.3
Source: Nobletec Navigation

C. Mudline Elevation
43.8

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 2.1
Recovery Measurement: ~~13.9~~ 12.9
Recovery Percentage: 99%
Total Length of Core To Process: ~~13~~ 12

Drive Notes: After surface penetration free fall

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-12 C

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose was empty
0' Soft, wet, brown SILT, ~~with~~ trace Sand
4' dense, moist, dark gray fine SAND, multi-colored grains
8' dense, very fine SAND, dark brown, damp
12' after cutting off nose dense fine SAND, damp, dark brown

Notes:

ANCHOR QEA

Sediment Core Collection Log

Page 1 of 1

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS, JD, DG, SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC 61
Attempt No. 1 of 1
Date: 3/1/10
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.4292
Long/Easting: 122 20.6012

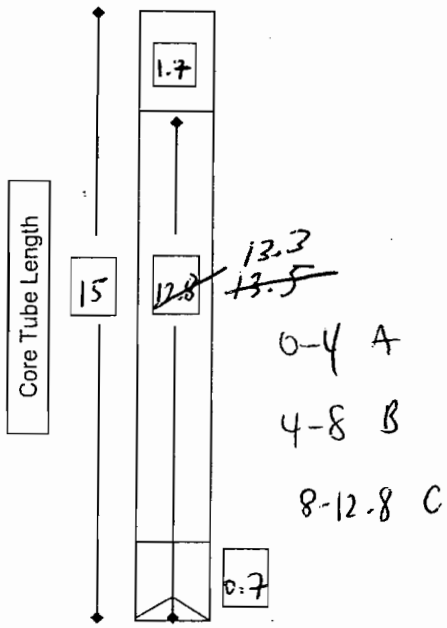
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 40.9

B. Water Level Measurements
Time: 1215
Height: 2.8 ft
Source: Nobletec Navigation

C. Mudline Elevation
44.1

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: 1.7
Recovery Measurement: ~~12.8~~ 13.3
Recovery Percentage: 91%
Total Length of Core To Process: 12.8



Drive Notes:
Drive - Easy penetration
@ 6ft 1ft layer a little stiffer

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose - moist, dark gray, ~~loose~~ dense, fine SAND
0' wet, loos, ~~dark~~ light brown, H_2S odor, silty fine SAND
4' dense, dark gray, silty vf- SAND, slight H_2S odor
8' med ~~dense~~ dense, dark brown, slightly silty SAND, strong ~~H_2S odor~~ odor
12' grains multi-colored
12.8 Dense, dark gray, silty vf-SAND, slight H_2S odor

Notes:

ANCHOR QEA

Sediment Core Collection Log

Job: East Waterway - Subsurface Inv.
Job No: 060003-01.17 Task 2
Field Staff: MSS, DG, JD, SF
Contractor: ☐ AMEC ☒ MSS
Vertical Datum: feet MLLW

Station ID: SC63
Attempt No. 1 of 1
Date: 3/1/10
Logged By: JD
Horizontal Datum: WGS 84

Field Collection Coordinates:
Lat/Northing: 47 35.5047
Long/Easting: 122 20.6153

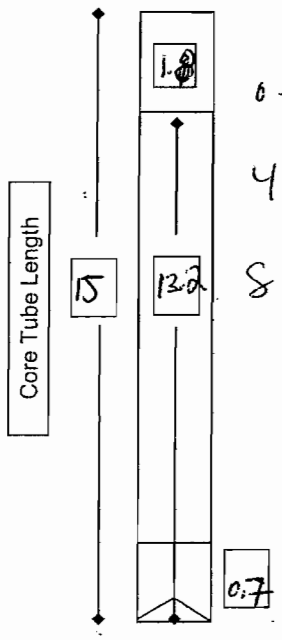
A. Water Depth
DTM Depth Sounder: —
DTM Lead Line: 59.3

B. Water Level Measurements
Time: 1300
Height: 3.9
Source: Nobletec Navigation

C. Mudline Elevation
55.4

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15
Drive Penetration: 14
Headspace Measurement: ~~1.9~~ 1.8
Recovery Measurement: 13.2
Recovery Percentage: 94 %
Total Length of Core To Process: 12.6

Recovery Measurements (prior to cuts)



0-4 A
4-8 B
8-12.6 C

Drive Notes:
Easy Penetration

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

0' wet, loose, dark brown silty fine SAND, NO ODOR
4' dense, dark brown, silty fine SAND. NO ODOR
8' dense dark gray, moist, sandy SILT
12.6' dense, damp, dark brown, very fine SAND

Notes:

LAB PROCESSING FORMS

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC06
Job No. 060003-01.17 Task 2	Date/Time: 2/2/10
No. of Sections: 1	Core Logged By: Olson / McKee 1530
Drive Length: 14.35	Attempt #: 1 of 1
Recovery: 11.55	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 80.5%	Diameter of Core (inches) 3.75"
Notes: EPA observed	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	–	5	95	SILT (ML): moist, soft, black, SILT trace f-sand. Trace biotic (twigs, shell debris, wood) trace subrounded gravel up to ~~1/4"~~ 1/2" - 0 (0.5-0.8'). Smooth and homogenous. H_2S-odor.		0	EW10-SC06 0-0.5	
						2	EW10-SC06 0.5-1.0	
							EW10-SC06 1.0-1.5	
				@1.8' piece of glass, wood (Cedar up to 0.2" L) SILT transitions to blocky texture		69.9	EW10-SC06 1.5-2.0	
				@2.0' scam off sandy-SILT			EW10-SC06 2.0-2.5	
	→	98	2	SP: moist, medium dense, black, f-SAND. Grains are black, white, beige, red		41	EW10-SC06 2.5-3.0	
	–	5	55	SILT (ML): moist, medium stiff, olive gray SILT substantial wood (40%), wood is brown, decomposed, and up to ~~3"L~~ H_2S odor.		72	EW10-SC06 3.0-3.5	
							EW10-SC06 3.5-4.0	
						170	EW10-SC06 4.0-4.5	
				@4.8': 3"L x 3"W wood piece			EW10-SC06 4.5-5.0	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC06 cont.
Job No. 060003-01.17 Task 2	Date/Time: 2/2/2010
No. of Sections:	Core Logged By: McKee / Olsen
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		–	–	80	SAA @ 2.8' (20%) wood decreases to occassional; transitions to damp and blocky texture, slightly clayey SILT, (ML) trace ~~pockets~~, wood fibers/hair-like		78	EW10-SC06-5.0-5.5	
							31	EW10-SC06-5.5-6.0	
6							7.8	EW10-SC06 6.0-8.4	
7		–	10	85	sand increases to slightly f sandy SILT, wood decreases to trace (ML)		0		
		–	98 (sand)	2	SAND (SP): damp, dense, dark grey f SAND with occassional silt pockets and layers and wood fragments and layers toward basal contact, wood fragments up to 1"-L and chunk up to 3 1/2"-L (yellow).			EW10-SC06 7.4-10	
8		–	– (pockets)	100			0		
9					@ 8.9' 3 1/2" wood chunk				
					~~SAND (SP): damp, dense, dark grey, slightly silty SAND with occassional~~		0		
10									

DRAFT

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC06 cont
Job No. 060003-01.17 Task 2	Date/Time: 2/2/10
No. of Sections:	Core Logged By: Olson / McKee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10	–	90	10	SAND(SM): damp, dense, dark gray, slightly silty, f-SAND with occassional wood ~~and silty~~ layers and silt seams.		0 ↓	EW10-SC06-10-11.4	
11				@ 11.4' 3"-L decomposed wood (relic)				
				End of core @ 11.45 ft.				
12								
13								
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC08
Job No. 060003-01.17 Task 2	Date/Time: 2/2/10 1340
No. of Sections: 1	Core Logged By: Olson / McKee
Drive Length: 14.32	Attempt #: 1 of 1
Recovery: 12.32	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 86%	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	-	5	95	SILT (ML): Moist, medium stiff, black w/ olive gray mottling, slightly clayey SILT, trace f-sand, trace biota (worm), trace rootlets, moderate H_2S-like odor. Silt is smooth and homogenous		0.1	EW10-SC08-0-0.5	
							EW10-SC08-0.5-1	
							EW10-SC08-1-1.5	
							EW10-SC08-1.5-2	
				@2': decrease in compactancy to soft			EW10-SC08-2-2.5	
				@2.5': consistency changes to blocky, w/ trace metallic sheen, moderate HC-like odor and trace shell hash.		15.2	EW10-SC08-2.5-3	
							EW10-SC08-3-3.5	
							EW10-SC08-3.5-4	
						1.7	EW10-SC08-4-4.5	
	-	-	100	SILT (ML): moist, soft, olive gray, slightly clayey SILT w/ trace fresh wood up to 1" L (yellow/brown). Silt is smooth/homogenous. Trace HC-like odor.			EW10-SC08-4.5-5	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC08 cont.
Job No. 060003-01.17 Task 2	Date/Time: 2/2/10 1340
No. of Sections:	Core Logged By: Olson / M. Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		–	–	100	SAA @ 4.7' (ML)		0	EW10-SC08-5-5.5	
								EW10-SC08-5.5-6	
6					@ 2½"-L bone (shown in 1' tall bag)			EW10-SC08-6-8	
7									
8		–	90	10	SAND (SM): damp, med. dense, dark gray slightly silty F-SAND w/ occasional wood fragments up to 1"L (cedar, decomposed) occasional interbeds of sand w/ wood fragments 1/16"L. Sand grains are red, black, beige, white. trace silt pockets and seams.			EW10-SC08-8-9.4	
9								EW10-SC08-9.4-11	
10									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC08 (cont.
Job No. 060003-01.17 Task 2	Date/Time: 2/2/10 1340
No. of Sections:	Core Logged By: Olson / McKee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (Inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		-	90	10	SAND (SM): SAA 8'		0 ↓	EW10-SC08-9.4-11	
11		-	98	2	SAND (SP): Moist, med. dense, dark gray F-SAND			EW10-SC08-11-12.5	
		-	-	100	SILT (ML): Moist, soft, light gray SILT				
12		-	98	2	SAND (SP): SAA 11.2'				
					End of core @ 12.65. Winnowing from 12.4-12.65				
13									

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 1
Drive Length: 7.65
Recovery: 5.7
% Recovery: 74.5%
Notes:

Station ID: EW10-SC03
Date/Time: 2/3/10 830
Core Logged By: Olson / Mckee
Attempt #: 1
Type of Core: ☑ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches): 3.75"
Core Quality: ☐ Good ☐ Fair ☐ Poor ☑ Disturbed (winnowing)

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	5	5	90	ML: moist, medium stiff, black, SILT, trace f sand, substantial shell fragments (40%), trace gravel, Subrounded up to 1/2" Ø, trace bivalve (~~clam~~, intact) Moderate H2S. Trace 2.5"-L wood fragment		No PID reading available	EW10-SC03-0-0.5	
				ML: moist, medium stiff, black SILT trace f-sand and trace shell fragments (2%).			EW10-SC03-0.5-1.0	
1	–	80	20	SM: moist, medium dense, black, silty f-SAND, trace shell fragments. Trace layers of decomposed wood.			EW10-SC03-1.0-1.5	
							EW10-SC03-1.5-2.0	
2		98	2	SP: ~~moist~~ damp, medium dense, ~~black~~ dark gray, f-SAND. Grains are beige, black, white, red			EW10-SC03-2.0-2.5	
	3	95	2	trace gravel to bottom of core. Subrounded, coarse 1/2" Ø, Trace shell fragments up to 1"-L			EW10-SC03-2.5-3.0	winnowing
3							EW10-SC03-3.0-3.5	
				SAA to bottom of core			EW10-SC03-3.5-4.0	
4							EW10-SC03-4.0-4.5	
							EW10-SC03-4.5-5.0	
5				End of core @ 5.8ft			EW10 SC03 5-5.5 last sample	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC04 ~~[illegible]~~
Job No. 060003-01.17 Task 2	Date/Time: 2/23/2010 1000
No. of Sections: 1	Core Logged By: LMcKee / ADSon
Drive Length: 12.45'	Attempt #: 1
Recovery: 7.35'	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 59%	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☑ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	15	20	80 65	ML: moist, medium stiff, black, slightly gravelly Sandy SILT. Moderate ~~shell~~ fragments (20%), ~~occasional to moderate gravel. Gravel is~~ Gravel is poorly sorted, subrounded, and up to 1/2"-0 (fine).		0	EW10-SC04-0-0.5	
	—	—	100	ML: moist, medium stiff, olive gray, SILT. Trace wood fragments and decomposed fibers up to 1/2"-L.		1.1	EW10-SC04-0.5-1.0	
	5	5	90	ML: moist, medium stiff, black, SILT, trace f sand and subangular gravel. Gravel is 1/2"-0. ~~Trace~~ Shell fragments. ~~Trace~~ Moderate decomposed wood. Moderate H_2S odor.		2.5	EW10-SC04-1.0-1.5	
							EW10-SC04-1.5-2.0	
							EW10-SC04-2.0-2.5	
	—	98	2	SP: moist, medium dense, dark gray, f-SAND. Sand grains are black, white, beige, red. Sand is homogenous. Trace seams of silt (3.75').			EW10-SC04-2.5-3.0	
							EW10-SC04-3.0-3.5	
				@3.75': layer of olive gray SILT with decomposed wood fragments.			EW10-SC04-3.5-4.0	
	—	100	—	@4.0' - grades to homogenous sand			EW10-SC04-4.0-4.5	
				@4.8': seam of black gravel, subrounded and up to 1/2"-0			EW10-SC04-4.5-5.0	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC04 continued
Date/Time: 2/23/2010 1000
Core Logged By: L McKee / Olson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 2.5 ft. (homogenous sand, no silt).			EW10-SC04-5.0-5.5	
6							No sample taken	
7	—	100	—	@ 7.0' grades to fine to medium sand. (no silt)				winnowing
8				End of core at 7.5 ft.				

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Sediment Core Processing Log

EW10-

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC-05
Job No. 060003-01.17 Task 2	Date/Time: 2/23/2010, 1500
No. of Sections: 1	Core Logged By: McKee / Olson
Drive Length: 7.35'	Attempt #: 1
Recovery: 6.05'	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 82.3%	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☑ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	-	15	85	ML: moist, med. stiff, black with olive gray mottling, slightly f-sandy SILT, occassional (10%) shell fragments. Grades to sandier toward basal contact		0	EW10-SC05-0-0.5	
	-	70	30	SM: moist, medium dense, black, silty f-SAND. occassional (10%) shell fragments. Sand grains are black + white. Grades to moderate (30%) shell fragments. Grades to medium sand (coarsening downwards toward basal contact), trace gravel 1/4" ⊘ subrounded. Trace silt layer			EW10-SC05-0.5-1.0	
							EW10-SC05-1.0-1.5	
						0	EW10-SC05-1.5-2.0	
							EW10-SC05-2.0-2.6	
	—	3	97	SP: ~~moist, med~~ damp, medium damp, dark gray, vf-SAND. Sand grains are beige, black, white, red. Grades to fine SAND toward basal contact.			EW10-SC05 2.6-3.0	
						0	EW10-SC05 3.0-3.5	
							EW10-SC05-3.5-4.0	winnowing
							EW10-SC05-4.0-5.5	
						0	EW10-SC05 4.5-5.0	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC05 continued
Date/Time: 2/23/2010, 1500
Core Logged By: McKee / Olson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5					SAA @ 2.5 ft.		0	EW10 SC05 5.0-5.5	
6							0	No Sample	
					End of core at 6.2 ft				
7									
8									
9									
10									

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC07A
Job No. 060003-01.17 Task 2	Date/Time: 2/23/2010
No. of Sections: 1	Core Logged By: McKee / Olson
Drive Length: 7.50	Attempt #: 1
Recovery: 2.85	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches) 3.75"
Notes: Barrel scored + packed, not bent or dented	Core Quality ☐ Good ☑ Fair ☐ Poor ☐ Disturbed *drove well to 3 feet*

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	30	55	15	SM: moist, ~~medium~~ dense, dk. grey, ~~silty~~ slightly silty, gravelly, f-c-SAND. Gravel is subrounded, 1/2"-Ø (poorly sorted).		0	EW10-SC07A-0-0.5	
	80	10	10	GM: moist, dense, dk. grey, slightly sandy, slightly silty, GRAVEL. (Poorly sorted) up to 1" Ø.		0	EW10-SC07A-0.5-1.0	
						0	EW10-SC07A 1.0-1.5	
							EW10-SC07A-1.5-2.0	
				@ 2.1': metallic bleb is 1/16"-Ø, slight to moderate HC-like odor.		0	EW10-SC07A-2.0-2.5	
	—	40	60	SM: moist, medium dense, dark grey, very silty, f-SAND. Grains are black + white (upper alluvium)			No sample	

End of core at 2.65 feet

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC-11
Job No. 060003-01.17 Task 2	Date/Time: 2/23/2010 1300
No. of Sections: 1	Core Logged By: McKee / Olson
Drive Length: 13.85	Attempt #:
Recovery: 10.25	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 74%	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☑ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	—	15	85	ML: moist, medium stiff, black, f-sandy SILT. Texture is smooth and homogeneous and grades to blocky below 3.5 feet. At surface, trace biota (worm tubes) and trace shell debris.		0	EW10-SC11-0-0.5	
							EW10-SC11-0.5-1.0	
1						0	EW10 SC11-1.0-1.5	
						0	EW10-SC11-1.5-2.0	
2						5.7	EW10-SC11-2.0-2.5	
						8.5	EW10-SC11-2.5-3.0	
3				@3.2' 1" piece of subrounded gravel		25	*geotech EW10-SC11-3.0-3.5	
				@3.5': blocky texture, increase in clay content to 19-20%			EW10-SC11-3.5-4.0	
4						3.8	EW10-SC11-4.0-4.5	
	—	60	40	SM: moist, med. dense, dk gray, very silty f-SAND. Trace biota + wood fibers, trace subrounded gravel (20%)			EW10 SC11-4.5-48	
5				DRFR - moderate HC-like odor			over	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC-11 continued
Job No. 060003-01.17 Task 2	Date/Time: 2/23/2010
No. of Sections:	Core Logged By: McKee/Olson 1300
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5	–	5	95	ML: damp, medium stiff, olive gray, slightly clayey SILT. Silt is gummy and rolls easily. Occassional seams and pockets of silty sand, poorly sorted. Trace wood debris.			*geotech EW10-SC11-5.0-5.5	
	–	80	20	SM: damp, medium stiff, dk grey, silty SAND (transitional)			EW10-SC11-5.5-6.0	
6	–	98	2	SP: damp, medium stiff, dk grey, f SAND, ~~trace with~~ trace silt seams and layers. Trace decomposed wood layers up to 1"-L. Sand grains are black, red, white, beige, (native)			*geotech EW10-SC11-6.0-8.0	
7				@6.7': silt seam				
8				@7.9': wood layer @8.1': silt layer 1/2"-thick				
9							EW10-SC11-8.0-9.9	winnowing
0				End of core at 10.7 ft.				

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC35
Job No. 060003-01.17 Task 2	Date/Time: 2/24/2010 1435
No. of Sections: 3	Core Logged By: McLee/Olson
Drive Length: 14 ft	Attempt #: 1
Recovery: 13.2 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 94.2%	Diameter of Core (inches) 3.75
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	—	15	85	ML: wet, soft, olive gray, vf-sandy SILT.				
						0		
	—	10	90	ML: moist, medium stiff, black with olive gray mottling, slightly vf-sandy SILT, trace subrounded gravel up to 1/4"-ø (fine). Trace layers of v. sandy SILT.			EW10-SC35-0-2	
1	—	30 35	70 65	@1.1-1.3' - layer of very vf-sandy SILT		0		
						2.4		
		30	70	@1.9-2.0' - layer of very vf sandy SILT				
2	—	35	65	SM: moist, medium dense, dk. gray, v. silty f-SAND, trace f gravel (subrounded, 1/4"ø)				
	—	55	45			0	EW10 SC35 2-4	
3				DRAFT				
						0		
4	—	15	85	ML: ~~moist~~ Damp, medium stiff, dk gray, slightly vf-sandy SILT, moderate layers and seams of very ~~sandy SILT (SM)~~ silty SAND (SM) up to 1" thick.			EW10-SC35-4-6	
	(—	70	30	@4.8-5.0': layer of medium dense, dk gray, ~~SAND~~ vf silty f-SAND (SM) Grains are multicolored (red, green, beige, white, black).		0		
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC35 continued
Job No. 060003-01.17 Task 2	Date/Time: 2/24/2010
No. of Sections: 3	Core Logged By: McKee / Olson
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5	(–	45	55)	SAA @ 4.0 ft. @5.2-5.3 : layer of ML (f-sand)			EW10 - SC35 - 4-6	
	(–	30	70)	@5.8 : layer ML (f-sand)				
6				Grades to oscillating layers of vf-sandy SILT (ML) and clayey SILT (ML). Layers/seams vary from 1/16" to 1" thick			EW10 SC35 - 6-8.5	
7				DRAFT				
8							No sample (6-8.5)	VOID
	–	70	30	Grades to SM: damp, dense, dk. gray, ~~[illegible]~~ silty vf-SAND.			EW10 SC35 8.5-10.1	
9								
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC35 continued
Date/Time: 2/24/2010
Core Logged By: McKee/Olson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					SAA @ 8.5			(8.5-10.1)	
		SM	70	30	SM: damp, dense, dk gray silty vf-Sand,				
		ML	(30	70)	oscillating layers and seams of ~~moderate~~ substantial (40%) vf-sandy-SILT (ML)				
					(Sand grains black, red, beige, white, and green.)			EW10 SC35 10.1-12.8	
11									
					DRAFT				
12									
					End of core at 12.8 ft				
13									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC19
Job No. 060003-01.17 Task 2	Date/Time: 2/25/2010, 1345
No. of Sections: 3	Core Logged By: Lucker / Olson
Drive Length: 14 ft.	Attempt #: 1 of 1
Recovery: 13.16 ft.	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 97.1%	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	–	5	95	ML: Moist, soft, black, SILT, trace f-sand. Trace plastic piece 2"-L, amber color. Slight H_2S odor. Smooth and homogenous texture. Trace worm tubes and wood fragments.		0	EW10-SC19-0-2.5	
	–	20	80	@1.4ft grades to sandy SILT.		0		
						0		
	–	70	30	SM: Moist, ~~medium~~ dense, dk. gray, silty, vf-SAND. Stains are multicolored.		0	EW10-SC19-2.5-4	
	–	60	40	Grades to very silty SAND (SM)		0	EW10-SC19-4-6	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC19 continued
Job No. 060003-01.17 Task 2	Date/Time:
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 2.5 (and 4.5 feet)				
	–	30	70	ML: moist, stiff, olive gray, very fine sandy SILT.		0	EW10-SC19-4-6	
				SAA		0	EW10-SC19-6-8	
						0		
		(70	30)	Grades to v.f.-sandy SILT, moderate seams of silty, vf-SAND (SM)		0	EW10-SC19 8-10	
				@8.8': 3" ø wood fragment, fresh.				
						0		
		90	10	SM: moist to damp, dense, dk gray, slightly silty, very fine SAND, occassional seams of olive gray sandy SILT.				

dash

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: SC19 continued
Date/Time: 2/25/2010
Core Logged By: 2
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 9.7 feet		0		
				Grades to layers and interbeds (up to 3" thick) of sandy SILT.		0	EN10-SC19-10-13	
						0		
				DRAFT		0		
				End of core 13.0 feet				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.ft
Recovery: 13.4 ft
% Recovery: 95.7 %
Notes:

Station ID: EW10-SC21
Date/Time: 2/25/2010, 1500
Core Logged By: LMcKee / Olson / MACDONALD
Attempt #: 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	—	10	90	OL: SOFT, MOIST, black, slightly f-sandy SILT. Trace organic fibers up to 1/4" long. MODERATE H2S ODOR.		6.3	EW10-SC21-0-2	
						11.1		
	—	3	97	ML: SOFT, MOIST, OLIVE GRAY, SILT, TRACE FINE SAND, SLIGHT HC-LIKE ODOR. Trace worm tubes		0		
	—	70	30	MODERATE INTERBEDS, LAYERS, + SEAMS OF MEDIUM DENSE MOIST BLACK (SM) SILTY SAND, FINE Trace debris (@2.1 ft) and trace f-gravel. @2.1 FT PLASTIC DEBRIS 2 IN. LONG.			2-4	
						0	EW10-SC21-2-4	
				DRAFT				
							4-5.3	
						0.5	EW10-SC21-4-5.3	
	—	30	70	~~SPA:~~ WM ML: SOFT, MOIST, BLACK, MEDIUM SANDY SILT, MODERATE HC-LIKE ODOR + TRACE METALLIC SHEEN.		0		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 0
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10 - SC21 continued
Date/Time: 2/25/2010, 1500
Core Logged By: Uckee/Olson/Macdonald
Attempt #: 9
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAME AS ABOVE AT 4.7 FT DIAGONAL CONTACT FROM 5 TO 5.3 FT		0	EW10 SC21 4-5.3	
	–	2	98	ML: STIFF, DAMP, OLIVE GRAY, SILT w/ TRACE V. FINE SAND, TRACE BLACK FINE SAND SEAMS, NO ODOR.		0	EW10 - SC21 - 5.3-7.8	
	–	30	70	@ 6 FT SAND INCREASES TO 5 GRADES TO SANDY SILT.		0		
				DIAGONAL CONTACT FROM 7.3 TO 7.8 FT		0		
		98	2	SP: damp, dense, dk. gray f-SAND. Trace silt seams and interbeds of damp, olive gray, stiff, very vf-sandy SILT. Trace wood fragments.		0	EW10 SC21 7.8-10	

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC21 continued
Date/Time: 2/25/2010 1500
Core Logged By: McKee / Olson / MacDonald
Attempt #:
Type of Core ☒ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0				SAA @ 7.8 feet				
1							EW10-SC21-10-12	
2				@11.8 to basal contact: grades to substantial silt seams + layers.			EW10 SC21 12-13.1	
3								
4				DRAFT				
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC38
Job No. 060003-01.17 Task 2	Date/Time: 2/25/2010 0830
No. of Sections: 3	Core Logged By: McKee/Orson
Drive Length: 14.0 ft	Attempt #: 1
Recovery: 13.6 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 97.1%	Diameter of Core (inches) 3.75"
Notes: ~~[illegible]~~	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	—	30	70	ML: moist, stiff, ~~dark~~ olive grey, vf-sandy SILT, trace pockets of light grey/brown silty clay (ash?).			EW10-SC38-0-0.8	
	—	70	30	SM: moist, dense, dk grey, silty f-SAND. Grains are multicolored (red, white, beige, black)			EW10-SC38-0.8-2	
	—	70 30	70	ML: moist, stiff, ~~dk~~ olive grey, vf-sandy SILT, substantial interbeds, layers, and seams of moist (grading to clump down core), dense, dk grey silty vf-SAND (SM).				
	—	60	40				EW10 SC38 2-3	
				DRAFT			EW10 SC38 3-4	
				SAA			EW10 SC38 4-6	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: SC38 continued
Date/Time: 2/25/2010 0830
Core Logged By: McGe/Dison
Attempt #: 1
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Grades to moderate sand interbeds at 5.0ft same description			EW10 SC38 4-6	
							EW10 SC38 6-8	
				SAA				
				DRAFT				
							EW10-SC38 8-9.6	
				@9.3: 1" layer of laminated ~~[illegible]~~ stiff, light gray, clayey SILT.				
	—	70	30	SM: damp, medium dense, dk. grey, silty vf-SAND, ~~[illegible]~~ moderate seams of olive gray sandy SILT (ML)			EW10 SC38 9.6-11	

Page 2 of 3

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: SC 38 continued
Date/Time: 2/25/2010
Core Logged By: Myer / Olson
Attempt #: C
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0				SAA @ 9.6 feet			EWIO SC38 9.6-11	
1							EWIO SC38 11-12.9	
2								
3				End of core at 12.9 feet				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.0 ft
Recovery: 13.8 ft
% Recovery: 98.6%
Notes: —

Station ID: ~~FSM~~ EW10-SC41 #
Date/Time: 2/25/2010 1020
Core Logged By: McGee, Olson
Attempt #: 2 of 2
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
		55	45	SM: moist, medium dense, dk. grey very silty vf ~~f~~ SAND. Grains are multicolored.		0	EW10 SC41 0-0.6	
		95	5	SP: moist, medium dense, dk grey f-SAND. Grains are multicolored (red, beige, black, white). Trace shell fragments			~~EW10 SC41 0.6-1.0~~	
		30	70	ML: moist, medium stiff, to stiff, olive gray, vf sandy SILT, substantial interbeds, layers, and seams of moist (grading to damp daincure), dense,			EW10 SC41 ~~1.0~~-2.0 ~~1.0~~ 0.6 to	
		60	40	dk. gray silty vf SAND (SM).		0		
							EW10 SC41 2-3.4	
				@ 3.0': 1" layer of light gray/brown silty clay.				
				3.4'		0		
		70	30	SM: moist, dense, dark grey, silty f SAND, trace silt pockets 1" ø. Grains are multicolored.			EW10 SC41 3.4-4	
				DRAFT		0	EW10 SC41 4-5.9	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC41 continued
Job No. 060003-01.17 Task 2	Date/Time: 2/25/2010 1020
No. of Sections:	Core Logged By: Olson / McKee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA at 3.4 feet		0	EW10-SC41-4-5.9	
		15	85	Transitions to moist, stiff, dk. grey and olive gray; slightly ~~sand~~ silty vf-SAND (ML)				
6		5	95	ML: damp, stiff, ~~dk~~ olive gray with black mottling clayey SILT				
		~~30~~ 15	70	6.8': grades to ~~silty sand~~ slightly sandy SILT.		0	EW10-SC41-5.9-8	
7								
3		70	30	SM: damp, medium dense, dk gray; silty vf-SAND, substantial seams, ~~or sand~~ layers, and interbeds				
		30	70	of stiff, olive gray; vf-sandy SILT (ML). Sand grades to fine clean sand; multicolored grains.		0	EW10-SC41-8-10	

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 0
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: SC41 continued
Date/Time: 2/25/2010
Core Logged By: Michael Olson
Attempt #: 2
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA at 8.0 feet		0	EW10-SC41-10-12.2 ~~8-10~~	
						0		
				@12.1: seam of decomposed wood				
		30 (70	70 30)	ML: moist, stiff, olive gray sandy SILT, moderate interbeds of SM		0	EW10-SC41-12.2-13 ~~10-12~~	
				End of core at 13.0 feet				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14 ft
Recovery: 14.15 ft
% Recovery: 101%
Notes:

Station ID: SC45
Date/Time: 2/25/2010, 1230
Core Logged By: McKee / Olson
Attempt #: 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	–	95	5	SP: ~~moist, loose~~ damp, dense, dk. grey, SP, trace silt pockets up to 1/4"-ø. Sand is fine and multicolored.		0	EW10-SC45-0-1	
				@0.9': 1/2" seam of decomposed wood fibers				
	–	40	60	ML: damp, medium stiff olive gray ML; Sand is very fine with multicolored grains		0	EW10-SC45-1-1.7	
		70	30	SM: moist, medium dense, dk gray, silty vf-SAND occassional wood fragments up to 1/4" L. Sand grains are multicolored, moderate seams and layers of			EW10-SC45-1.7-3	
		40	60	moist, medium stiff, olive gray, very sandy SILT. (ML)				
				@3.0': ML seams and layers increase to substantial. Sand grains coarsen downwards to fine grained.		0	EW10-SC45-3-4	
				DRAFT				
				@4.6-4.8': soft, medium stiff, light gray-olive gray clayey silt interbed.		0	EW10-SC45-4-6	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: SC45 continued
Date/Time: McKee / Olson 2/25/2010
Core Logged By:
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 3.0' (and 1.7 feet)		0	EW10-SC45-~~6-8~~ 4-6	
6		~~45~~ 40 70 ~~65~~	~~55~~ 60 30 ~~35~~	ML: damp, stiff, olive gray, very v.f.-sandy SILT, moderate seams and layers of very silty v.f.-SAND. (SM), dk. grey, dense, damp.		0	EW10-SC45-6-8	
7								
8				8-8.2': SAA @ 4.6-4.8'		0	EW10-SC45-8-10	
9						0		

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: SC45 continued
Date/Time: 2/25/2010
Core Logged By: McLee/Nelson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 6.0 feet		0	EW10 SC45 10-12	
						0		
	—	30	70	Grades to vf-sandy SILT		0	EW10 SC45 12-13.3	
				End of core 13.3 feet				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC20
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 824
No. of Sections: 3	Core Logged By: Olson, JMD
Drive Length: 14 ft	Attempt #: 1 of 1
Recovery: 12.8 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 91.4%	Diameter of Core (inches) 4
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0		0	100	ML: 1/16" Seam of moist, soft, dark gray SILT			Not Sampled	
		98	2	~~SP~~: Med-dense, moist, brown, fine-coarse grains of SAND. SW/ grains are beige, white, green, gray grades to black				
		30	70	ML: Med. Stiff, moist, olive gray w/ dark gray mottling ~~SILT.~~ Very fine Sandy SILT, substantial occilating layer, interbeds, and Seams of moist, dense, dgray, Silty, vf-Sand (SM) Sand grains are black, white, beige, red.		ϕ	EW-10-SC20-0.4-2.4	
1		(70)	(30)					
2								
				@ 2.7 feet: grades to moderate (30%) Seams, trace Shell fragments			EW10 SC20 2.4-4.4	
3								
4								
				grades to:				
		15	85	ML: damp, Stiff, olive gray slightly vf-Sandy SILT			EW10 SC20 4.4-6.4	
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC20
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 824
No. of Sections: 3	Core Logged By: Olson
Drive Length: 14 ft	Attempt #: 1 of 1
Recovery: 12.8	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 91.4	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				same as above @ 4.4'				
6						ϕ	EW10 SC20 4.4-6.4	
				@ 6.4' grades to:				
	gd	~~85~~ 15	~~15~~ 85	moderate (20%) wood fiber, decomposed			EW10 SC20 6.4-8.5	
7								
8				diagnol contact 8.5'-8.8'				
		98	2	SP: dense, damp, d. gray, vf-f-SAND, trace silt, substantial oscillating seams, layers, and interbeds of dense, damp, olive gray, very silty, very fine sand (SM), trace wood fibers up to 2" long sand grains are black, white, beige, red			EW10 SC20 8.5-10.5	
9		(60)	(40)					
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC20
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 824
No. of Sections: 3	Core Logged By: Olson
Drive Length: 14 ft	Attempt #: 1
Recovery: 12.8 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 91.4 %	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 8.5'				
				@10.2' grades to trace seams		ϕ	EW10 SC20 8.5-10.5	
							EW10 SC20 10.5-12.5	
11								
12								
				@ 12.5' END OF CORE				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10SC-37
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1000
No. of Sections: 3	Core Logged By: ~~JM~~ Olson JMO
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.6	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 97.1	Diameter of Core (inches) 4
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0		40 (85)	60 (15)	ML: Med Stiff - Stiff moist, olive gray with dark gray mottling, very Vf-Sandy SILT substantial oscillating layers + seams of slightly silty ~~SAND~~ (SM) Sand grains are multicolored → very fine SAND		Ø	EW10-SC37-0-2	
1				Slight ~~Moderate~~ H_2S odor				
2							EW10-SC37-2-4.3	
3								
4				VOID			~~Not~~ VOID	
				Same as above at 0'			EW10 SC37 4-6	
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EWSC37 10
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1100
No. of Sections: 3	Core Logged By: Olson, JMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.6	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 97.1	Diameter of Core (inches) 4
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 0'			EW10 SC37 4-6	
				@ 5.5' grades to:				
		20	80	Slightly clayey vf-Sandy SILT				
6							EW10 SC37 6-8	
	X			X No line @ 2/26/10 X				
7								
		98	2	SP: dense, damp, dark gray SAND, trace silt, moderate oscillating interbeds, layers, and seams of stiff, damp, olive gray, slightly vf-Sandy SILT (ML)		Ø		
8		(15)	(85)	Sand grains are multicolored trace wood fibers up to 1" long			EW10 SC37 8-10	
9								
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10SC-37
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1000
No. of Sections: 3	Core Logged By: AO, JMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.6	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 97.1	Diameter of Core (inches) 4
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as 7.1'			EW10 SC37 10-12.9	
12								
13				END of CORE @ 12.9th Feet		gp	None	~~No Image~~

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC43
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 ~~1130~~ 1230
No. of Sections: 3	Core Logged By: AO, SMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 12.1	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 86.4	Diameter of Core (inches) 4
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID ppm	Sample	Summary Sketch
0		5 (70)	95 (30)	ML: med stiff, moist, olive-gray with dark gray motteling SILT, trace very fine Sand, Substantial Seams, layers, and pockets of med dense moist, dark gray silty very fine SAND (SM) grains are multicolored, trace biota (worm tubes), trace Subrounded gravel up to ½" diameter.		Ø	EW10-SC43-0-1.3	
1		70	30	SM: med dense, damp, dark gray, silty, very fine SAND, substantial wood pieces and fibers up to 1" long wood is decomposed red and yellow		Ø		
2	gp	85 (30) (30)	15 (60) (70)	SM: med dense, moist-damp, dark gray, Slightly, silty vf-SAND, Substantial (40%) interbeds, layers, and seams of stiff, damp, olive-gray, vf-Sandy SILT (ML) Sand grains are multicolored trace wood fragments up to 2" long		Ø 6.4 @ 2'	EW10-SC43 1.3-4.0	
3						11.4 @ 3.5'		
4		98	2	@ 4.6' grades to: SAND, trace silt			EW10 SC43 4.0-6.0 ↓	

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 – SC43
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1230
No. of Sections: 3	Core Logged By: AO, JMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 12.1	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 86.4	Diameter of Core (inches) 4
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @ 1.3' and 4.6'		Ø	EW10 SC43 4-6	
6							EW10 SC43 6-8	
7								
8				VOID				
				SAA @ 1.3', 4.6'			EW10 SC43 8-10	
9								
10								

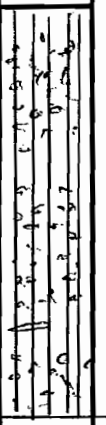
DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14
Recovery: 12.1
% Recovery: 86.4
Notes:

Station ID: EW10-SC43
Date/Time: 2/26/10 1230
Core Logged By: AO, JMD
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 4"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as above @ 1.3' and 4.6'		Ø	EW10 SC43 10-11.5	
				@ 11.2' trace wood debris				
				END OF CORE @ 11.5'				
12								
13								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC46
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1345
No. of Sections: 3	Core Logged By: AO, JMD
Drive Length: 14	Attempt #: 2 of 2
Recovery: 13	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 92.8	Diameter of Core (inches) 4"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				@ 0' large worm tube 6" long multicolored sand				
0		15 (70) (0)	85 (30) (100)	ML: med stiff, moist, olive-gray, slighty vf-sandy SILT, substantial dark gray f-sand pockets (SM), moderate light gray clayey silt pockets (ML)		Ø	EW10-SC46 0-2.3'	
native		15 (70)	85 (30)	ML: med stiff, moist, olive gray, slighty vf-sand SILT, substantial seams and layers of med-dense, damp, dark gray, silty vf-SAND (SM). Sand grains are multicolored trace seams of decomposed wood and wood fibers (@ 1.3' and 1.5') @				
1								
2				@ 2.2' 1" wood layer (same as above)			No line	
		60 30	40 (70)	SM: med dense, moist, dark gray, very silty vf-SAND, moderate stiff, damp, olive gray vf-sandy SILT (ML) trace wood fibers up to 1/4"		Ø	EW10 SC46 2.3-4.0	
3								
4							EW10 SC46 4-6	
5								

See next page for description

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC46
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1345
No. of Sections: 3	Core Logged By: AO, JMD
Drive Length: 14	Attempt #: 2 of 2
Recovery: 13	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 92.8	Diameter of Core (inches) 4"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		98	2	@ 4.9' SP: med dense, damp, dark gray SAND, trace silt, trace silt interbeds (@ 7.2') Grains are multicolored trace shell fragments, trace wood fragments		Ø	EW10-SC46 4-6	
6							EW10-SC46 6-8.1	
7		40	60	@ 7.2'-7.4' ML: Stiff, damp olive gray very vf. Sandy SILT				
8							X No line	
		15	85	ML: med stiff, moist olive gray Slightly vf-Sandy SILT. ~~with~~ Substantial interbeds, layer, and seams of med dense, damp, dark gray Slightly Silty vf SAND (SM)			EW10 SC46 8.1-10	
9		85	15					
10								

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14
Recovery: 13
% Recovery: 92.8
Notes:

Station ID: EW10-SC46
Date/Time: 2/26/10 1345
Core Logged By: AB JMD
Attempt #: 2 of 2
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 4"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as above @ 8.1'			EW10 SC46 10-12.4	
12				END OF CORE @ 12.4'				
13								
14								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC55
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1530
No. of Sections: 3	Core Logged By: AG, JMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 11	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 78.6	Diameter of Core (inches) 4"
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0		60	40	SM: med dense, wet, olive-dark gray very silty, f-SAND, trace sub-angular gravel up to 1" diameter, trace shell fragments moderate H_2S odor Sand grains are multicolored. @ 0.1' plastic piece up to 2"		Ø	EW10 SC55 0-1.8	
1								
2		98	2	SP: dense, damp, dark gray vf-SAND, trace silt, moderate layers, interbeds, and seams of stiff, ~~moist~~ damp, olive-gray, vf-sandy SILT (ML) @ 2' 3" sub-angular cobble multicolored sand grains moderate H_2S odor		Ø	EW10 SC55 1.8-4	
		(39)	(79)					
3								
4							EW10 SC55 4-6	
						26.6 @ 4.5'		
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC55
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1530
No. of Sections: 3	Core Logged By: AO, JMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 11	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 78.6	Diameter of Core (inches) 4"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 1.8		5.8 @ 5'	EW10 SC55 4-6	
6				@ 6' grades to:				
		98	2	SP: med-dense, damp, dark gray, f-SAND, trace silt, trace layers and interbeds of decomposed wood fragments up to 1" long, trace shell fragments. Sand grains multicolored moderate H_2S odor		11.7 @ 6.5'	EW10 SC55 6-7.8	
7								
8				VOID (Sampler noted void @ bottom of section when cut, slumping assumed)		Ø	EW10 SC55 7.8-10	
				Same as above @ 6'				
9								
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10SC55
Job No. 060003-01.17 Task 2	Date/Time: 2/26/10 1530
No. of Sections: 3	Core Logged By: AO, JMD
Drive Length: 14	Attempt #: 1 of 1
Recovery: 11	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 78.6	Diameter of Core (inches) 4"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as above @ 6'		494 @ 10.6'	EW10 SC55 10-11.5	
				END OF CORE @ 11.5'				
12								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC18
Job No. 060003-01.17 Task 2	Date/Time: 3/1/2010
No. of Sections: 3	Core Logged By: McKee / Peterson
Drive Length: 14.0 feet	Attempt #: 1 of 1
Recovery: 13.6 feet	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 97%	Diameter of Core (inches)
Notes: Native expected at 8-9 feet	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	–	10	90	ML: Moist, soft black w/olive grey mottling slightly sandy SILT. Sand is vf. Trace organics: fibers and rootlets.			EW10-SC18-0-2	
1								
2				Slight H_2S from 2'-4'				
	–	10	90	@2.3: Grades to ML and layers and pockets of moist, med. dense, dark grey to black, fine, silty SAND (SM). Layers are 1/2" thick.			EW10-SC18-2-4	
	–	70	30					
3				DRAFT				
4				VOID: 3.9'-4.1'				
		90	10	SM: Damp, dark grey, med. dense, slightly silty SAND. vf-mf sand. Trace decomposed wood up to 1/16" and moderate seams and layers, of soft, moist, olive grey SILT (ML). Sand grains are multicolored (black, white, grey, beige, and red).			EW10-SC18-4-6	
5		2	98					

and pockets

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC18 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/1/2010
No. of Sections: 2	Core Logged By: McKee, Peterson
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @4.3'			EW10-SC18-4-6	
6							EW10-SC18-6-8	
7								
				VOID: 7.9'-8.0'				
8				DRAFT			EW10-SC18-8-10	
9				@9.3: 1" thick, 3.75" diameter piece of wood.				
10				@10': Seam of decomposed wood				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC18 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/1/2010
No. of Sections:	Core Logged By: McKee, Peterson
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				Same as above @ 4.3'			EW10-SC18-10-12.9	
11								
12								
13				End of core @ 12.95'				
14				DRAFT				
15								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC07B
Job No. 060003-01.17 Task 2	Date/Time: 3/1/10, 1230
No. of Sections: 3	Core Logged By: McKee, Peterson
Drive Length: 13.5	Attempt #: 1
Recovery: 13.0	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 96%	Diameter of Core (inches) 3.75"
Notes: Native estimated 13-23 feet	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	30	65	5	SM: Damp, dense, dark brown to black gravelly, mc-sand. Gravel is sub-rounded ~½" diameter (fill).		0	EW10-SC07B-0-0.5	
	20	10	70	@0.2' grades to ML: moist, soft to med-stiff, black, slightly gravelly sand SILT			EW10-SC07B-0.5-1.0	
1				@0.7 grades back to SM: same as top unit.			EW10-SC07B-1.0-1.5	
	—	10	90	ML: Moist, med-stiff, black, slightly fine sandy SILT and trace interbeds				
	10	5	85	of slightly gravelly SILT. ML(OL?)		0	EW10-SC07B-1.5-2.0	
2				@2': 3"L piece of wood			EW10-SC07B-2.0-23	
	5	90	5	SM: Moist, damp, dense, dark grey, f-SAND. Trace gravel subrounded up to ¼": fine gravel. Sand grains are multi-colored (black, white, grey, beige, red). And damp, soft moderate olive grey silt seams,			2.0-2.5	
				pockets and layers up to 1" thick			EW10-SC07B-2.5-3.0	
3	—	—	100	(ML) and moderate layers of decomposed wood		0	EW10-SC07B-3.0-3.5	
				@4.4': Decomposed orange-colored wood up to 1" L.			EW10-SC07B-3.5-4.0	
4				DRAFT			EW10-SC07B-4.0-4.5	
				@4.5': Decomposed layer of wood. @4.7': Decomposed layer of wood.		0	EW10-SC07B-4.5-5.0	
5				4.9'-5': Layer of decomposed wood				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC07B continued
Date/Time: 3/1/2010, 1230
Core Logged By: McKee / Peterson
Attempt #: 2
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @ 2.3'			EW10-SC07B-5.0-5.5	
				@5.8': Layer of wood			EW10-07B-5.5-6.0	
6							EW10-SC07B-6-8	
7				@7.4': Layer of wood @7.7: Layer of wood @8': Silt pockets, layers, and seams grade to substantial @8.1': Layer of wood @8.3': Layer of wood				
8							EW10-SC07B-8-10	
9	–	2	98	ML: Damp, med stiff olive grey clayey SILT. Silt is smooth and homogenous in texture. Trace decomposed organics. Rolls easily.				
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC07B continued
Date/Time: 3/1/2010, 1230
Core Logged By: McLee, Peterson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				Same as above @ 8.5'			EW10-SC07B-10-12.25	
11								
12				@12.1': Seam of f-SAND @12.2: Seam of f-SAND				
				End of core @ 12.25'				
13								
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.0'
Recovery: 14.35'
% Recovery: +100%
Notes: Native anticipated = 3.4-10ft

Station ID: EW10-SC15
Date/Time: 3/1/2010, 1045
Core Logged By: McKee / Peterson
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☐ Good ☑ Fair ☐ Poor ☐ Disturbed (void @ 8' and 3.9')

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	~	2	98	ML (DL?): moist, soft, black with olive gray mottling, SILT, trace vf-sand.		0	EW10-SC15-0-2.3	
1	—	5	95	@1.0' grades to fine sand				
				@1.6' trace subrounded gravel. Coarse gravel. 1" in diameter.				
2						0		
	Ø	80	20	SM: Moist, med-dense, dark grey, silty SAND. Sand is fine, and multicolored and moist, soft, olive-grey silt seams and layers and interbeds - moderate (30%). (black, white, grey, beige, red)			EW10-SC15-2.3-4	
3								
4				VOID 3.9'-4.05'		0		
							EW10-SC15-4-6	
				DRAFT		3.0		
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC15 continued
Date/Time: 3/1/2010, 1045
Core Logged By: McKee / Peterson
Attempt #: 1
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @ 2.3'		0	EW10-SC15-4-6	
6				@6' - 1/2" layer of shredded, decomposed wood up to 1/4" L				
7						0	EW10-SC15-6-8	
8	Ø	Ø	100	@8' Grades to substantial seams, layers, and interbeds of SILT.				
				VOID 8.05' - 8.2'				
9						0	EW10-SC15-8-10	
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC15 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/1/2010, 1045
No. of Sections: 2	Core Logged By: McKee/Peterson
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				Same as above @ 2.3'				
						0	EW10-SC15-10-12	
11								
						0		
12							EW10-SC15-12-13.7	
13						0		
14				End of core @ 13.7'				
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC12
Job No. 060003-01.17 Task 2	Date/Time: 3/1/2010, 1000
No. of Sections: 3	Core Logged By: McLee/Peterson
Drive Length: 14.0'	Attempt #: 1 of 1
Recovery: 12.6'	Type of Core ☑ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 90%	Diameter of Core (inches)
Notes: Native anticipated at 2-15ft.	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	Ø	5	95	ML: Moist, soft, black w/olive grey mottling SILT, trace fine sand. Silt is homogenous, smooth. Trace rootlets and fibers (OL?)			EW10-SC12-0-2	
1	Ø	10	90	@1' grades to slightly fine sandy SILT		3.8		
2				@2.6' trace wood. 1/4" L seam		12.3	EW10-SC12-2-3.1	
3				@3' 1/4" seam of SM				
	Ø	90	10	SM: Moist, dense, dark grey, slightly silty f-~~sand~~ SAND, trace silt layers and wood layers. Wood is up to 3.5" L. Grains are multicolored (black, white, grey, beige, red)		2.2	EW10-SC12-3.1-5	
4				@3.5 - wood layer @4.4 - wood layer				Void
	Ø	95	5	SP: Damp, dark grey, dense, f-SAND. Sand grains are multicolored				
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 9
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC12 continued
Date/Time: 3/18/2010, 1000
Core Logged By: McKee / Peterson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @4.5'				
				Moderate H_2S @5.5'			EW10-SC12-5-7	
6								
7	—	95	5	@6.9' grades to SP and pockets and layers				
	Ø	Ø	100	of ML: moist olive brown SILT. Silt is very smooth. Pockets and layers up to 2" in diameter.			EW10-SC12-7-9	
				@7.7' grades back to SP only				
8								
9							EW10-SC12-9-11.9	
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC12 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1000
No. of Sections: 2	Core Logged By: Peterson/McKee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					Same as above @ 7.7'			EW10-SC12-9-11.9	
11		0	0	100	@ 11'-11.2 - 1/2" trace silt pockets ~~trace silt~~				
		Ø	90	10	SM: Damp, dark grey, dense, silty SAND, ¢ trace wood fragments up to 1" L. Sand grains are multi-colored. vf-SAND				
12					End of core @ 11.9'				
13									
14					DRAFT				
15									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC10
Job No. 060003-01.17 Task 2	Date/Time: 3/1/2010 0830
No. of Sections: 3	Core Logged By: McLee, Peterson
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 13.1 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 93.6 %	Diameter of Core (inches) 3.75"
Notes: no historic depth to ALLUVIUM	Core Quality ☐ Good ☐ Fair ☐ Poor ☑ Disturbed (7.9-8.4 feet)

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	Ø	10	90	ML; moist, soft, olive grey and black, slightly f-sandy SILT (DL?)		0	EW10-SC10-0-2.4	
1	5	85 ~~90~~	10	SM: moist, soft to medium dense, black, silty m-c-sand, trace, sub-rounded fine gravel, 1/2" round Ø				
	80	15	5	GM: moist, dense, black, M-sandy GRAVEL. Gravel is subrounded and coarse up to 1"		0		
	Ø	10	90	ML: Moist, medium stiff, black, SILT slightly ~~trace~~ f-m-sand, ~~trace~~, subrounded cobbles 2.5" in diameter		0		
2								
	Ø	2	98	ML: Moist medium stiff, black, SILT, trace olive-grey silt pockets, up to 1" diameter, occasional layers of SM: moist, medium dense dark grey f-sand. Sand grains are black, white, grey, beige, red. trace shells @ 3'		0	EW10-SC10-2.4-4	
3	Ø	85	15					
	Ø	95	5	SP: Moist, dark grey med. dense to dense fine sand				
	20	70	10	Grades to moderate gravel. Subrounded up to 1/2" diameter f-gravel @ 4.1 Gravel ~~ends~~ grades to trace				
4						0	EW10-SC10-4-6	
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes: Scale in margin

Station ID: EW10-SC10 continued
Date/Time: 3/11/2010 0830
Core Logged By: McKee/Peterson
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☑ Disturbed (void at 7.9')

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @ 3.1			EW10-SC10-4-6	
	Φ	90	10	SM: Moist, dense, dark grey slightly silty f to vf SAND, substantial seams, layers, and interbeds of damp olive grey, med. stiff SILT(ML). Sand grains are multicolored		0		
	Φ	5	95					
6						0	EW10-SC10-6-8	
7						0		
8				8.1-8.2 Layer of decomposed wood up to 1/2" L			EW10-SC10-8-10	
	Φ	95	5	SP: Moist, dense, dark grey fine SAND		0		
9				@ 9' grades to M-sand				
						0		
10								

VOID SPACE
per communication w/ collection team, was

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: Ø
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC10 continued
Date/Time: 3/1/2010, 0830
Core Logged By: McLee / Peterson
Attempt #: 2
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				Same as above @ 8.2'			EW10-SC10-10-11.3	
	Ø	2	98	@10.7' - 1/2" layer olive-grey SILT (ML)		Ø		
	Ø	2	98	10.9'-11': 1" layer of olive grey SILT (ML)				
11	Ø	2	98	11.2-11.4: 1.5" round pocket of olive grey SILT				
				~~11.4-11.5~~ 11.35-11.45: 1" thick layer of large wood pieces			no sample taken	
				End of core 11.45'				
12								
13								
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC57
Job No. 060003-01.17 Task 2	Date/Time: 8/3/2010 11:10
No. of Sections: 3	Core Logged By: McKee, Soccorsy
Drive Length: 14.0 ft.	Attempt #:
Recovery: 13.8 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 99%	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	70	30	@ 0.25 ML moist soft olive gray sandy SILT				
	0	75	25	SM damp, med dense, dark grey, silty very fine to fine SAND and layers of olive grey silt. trace layers of well decomposed wood up to 0.5"-L. Sand grains multicolored (red, black, beige, white, grey)		0.6	EW 10-SC57 0-2	
1	0	10	90	ML damp, med stiff, olive grey, slightly sandy SILT				
	0	95	5	SP damp, med dense, dark grey, F SAND. Sand is multicolored, trace wood decomposed up to 0.5"-L				
	0	0	100	and trace silt pockets up to 0.25" Ø (ML)				
2						0	EW 10 SC57 2-4	
3				DRAFT		0		
4						0	EW 10 SC57 4-6	
				@ broken shell fragments				
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW 10 - SC57
Job No. 060003-01.17 Task 2	Date/Time:
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				saa 1.2'		0	EW 10 SC57 4-6	
6				DRAFT		0	EW 10-SC57 6-8	
7				@ 7.1 silt pockets (ML) grade to substantial		0		
				VOID				
8	0	20	80	ML, damp, stiff, olive grey, VF-sandy SILT, moderate seams and layers of moist		0	EW 10 SC57 8-10	
	0	85	15	dense, dark grey, ~~fine~~ NS silty fine sand (SM)				
	0	85	15	SM, ~~dense~~, damp, dense, dark grey, silty VFSAND and, moderate seams and layers of ML as described above. Sand grains are multi-colored				
9								
				@ 9.8' moderate H_2S odor				
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC57
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010
No. of Sections:	Core Logged By: ~~3/2/2010~~
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10	0	0	100	ML, damp, stiff, olive grey, clayey SILT. trace wood debris up to 1/8" - L moderate H_2S odor			EW10 SC57 10-12.8	
11	0	10	90	@ 11.2' grades to slightly VF sandy SILT				
12	0	90	10	SM damp, dense, dark grey, slightly silty VF SAND. Grains are multicolored				
13				end of core @ 12.8'				
14				DRAFT				
15								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.0 ft
Recovery: 12.6 ft
% Recovery: 90%
Notes: Native expected at 0-6 feet

Station ID: EW10-SC58
Date/Time: 3/2/2010 0830
Core Logged By: McLee / Sarcasy
Attempt #: 2 of 2
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed void @ 4.0')

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	0	5	95	ML; moist, soft, black, silt trace fine sand, silt smooth and homogenous ~~@ 0.9' 1" long anthropogenic debris (brittle plastic)~~ NS trace shells, trace wood layers slight H_2S odor		0.0		
						0.9	EW10-SC58 0-1.8 ~~0.7~~	
				@ 0.9' 1" long anthropogenic (brittle plastic) show and tell baggie				
				@ 1.4': 1 in layer of decomposed wood up to 1.5"/L				
	0	80	20	SM, moist, med dense, dark grey, slightly silty SAND. sand is F, multicolored grains (white, black, beige grey, red), moderate layers of decomposed wood up to 1.5"/L occassional layers and interbeds of soft, med stiff, olive grey SILT (ML)		0	EW10-SC58 1.8-4	
	0	5	95					
				DRAFT		0		
				NS				
				NS				
				VOID		0		VOID
	0	90	10	@ SM grades to slightly silty SAND			EW10-SC58 4-6	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC58 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010
No. of Sections: 2	Core Logged By: McKee / Soccorsy
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5	0	95	5	SP, damp, dense, dark grey, fine SAND, and occassional lbs and layers of ML. trace layers of (well decomposed) wood. Pockets		0	EW 10-SC58 4-6	
6						0	EW 10-SC58 6-8	
7				DRAFT		0		
				@ 7.7: trace shell fragments				
8						0	EW 10-SC58 8-10	
				@ 8.5: trace sub rounded F gravel				
	0	10	90	ML, damp, stiff, olive grey, slightly sandy silt, occassional layers and seams of SM (fine multi colored)				
9	0	80	20					
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC58 continued
Date/Time: 3/2/2010
Core Logged By: McKee / Soccorsy
Attempt #: 2
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					saa @ 8.6'			EW 10-SC58 10-12	
11		0	98	5	SP, damp, dense, dark grey, VF-SAND				
12					end of core @ 12'				
13									
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.0 ft
Recovery: 13.8 ft
% Recovery: 99%
Notes: Native expected @ 0-4 ft.

Station ID: EW10-SC59
Date/Time: 3/2/2010 9:52
Core Logged By: McKee / Sorcorsy
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed (void @ 4.0')

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	10	90	@0.25" ML: moist soft olive grey slightly sandy silt				
	0	90	10	@0.25" SM: moist, med dense, dark grey, very F to F-SAND (slightly silty), sand grains are multicolor (black, grey, beige, red) and trace silt pockets up to 1" - Ø, trace broken shell fragments, trace layers of shredded decomposed wood up to 1" - L, trace biota (livingworm).			EW10-SC59 0-2	
1								
2							geotech @ 2"	
	0	10	90	ML: moist, med stiff, olive grey, slightly sandy				
	0	85	15	SILT and occasional layers of SM.			EW10 SC59 2-4	
3				DRAFT			geotech @ 3.4'	
4				VOID SPACE				
							EW10 SC59 4-6	
5	0	90	10	SM: moist dense dark grey slightly silty F				
	0	10	90	SAND and occassional layers of ML				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC59 continued
Date/Time: 3/2/2010,
Core Logged By: McKee, Soccorsy
Attempt #: 2
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5					saa @ 4.8'			EW 10 SC59 4-6	
6								EW 10 SC59 6-8	
7					@ layers of ML increase to substantial				
8		0	0	100	ML; damp, stiff, olive gray with black mottling SILT, trace decomposed wood up to 1.25'-L silt is smooth and homogenous and rolls easily			EW-10 SC59 8-10	
9									
10									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10 - SC59 continued
Date/Time: 3/2/2010,
Core Logged By: McKee, Soccorsy
Attempt #: 2
Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					dash line				
		0	80	20	SM: damp, dense, dark gray, ~~slightly~~ NS silty,			EW 10 SC59 10-12.9	
		0	5	95	VF SAND and ocassional seams, layers ~~and pockets~~ NS ~~of~~ NS ML.				
11									
12		0	90	10	@ 12.4' SM grades to a slightly silty SAND				
13					end of core 12.9'				
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC60
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010 1240
No. of Sections: 3	Core Logged By: McKee/Sacorsy
Drive Length: 14.0 ft	Attempt #:
Recovery: 12.9 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 99%	Diameter of Core (inches) 3.75"
Notes: Native expected @ 3-12 feet	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	5	95	ML: moist, soft, olive gray, SILT, trace f-sand. Trace sheenat surface. Moderate wood fragments 2"-L		0	EW10-SC60-0.0-0.8	
	0	5	95	ML: grades to black SILT and trace seams of				
	0	80	20	silty, very fine-fine SAND. (SM)				
1	0	80	20	SM: moist, medium dense, dk gray, silty vf-SAND. SAND grains are multicolored (red, black, white, beige). Trace decomposed wood up to 1"-L		0		
2	0	95	5	SP: moist, dense, dk gray, vf-SAND. Grains are multicolored. Trace decomposed wood up to 3/4"-L		0	EW10-SC60-0.8-3.0	
3	0	30	70	ML: moist, stiff, olive gray, vf-sandy SILT and seams of SM (as described @ 0.8 feet). DRAFT				
4	0	95	5	SP: damp, dense, dk gray, f-SAND. Trace wood fragments up to 1/2"-L. Grains are multicolored			EW10-SC60-3-5	
	0	15	85	ML: damp, stiff, olive gray, slightly vf-sandy, SILT and moderate pockets, seams and layers of SM (as described at 0.8')				
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC60 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 4.2 feet			EW10-SC60-5-7	
6	0	0	100	@6.0': grades to smooth silt (ML) and moderate SM seams, layers.				
7				DRAFT			EW10-SC60-7-9	
8				VOID SPACE				VOID
	(SM) 0	90	10	SM: damp, dense, dk. gray, slightly silty f-SAND.				
	(ML) 0	10	90	Sand grains are multicolored. Trace seams of ML				
9	0	95	5	ML: damp, stiff, olive gray, clayey SILT. Silt rolls easily and is smooth.			EW10-SC60-9-11.9	
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC60 continued
Date/Time: 3/2/2010
Core Logged By: McLee/Soccorsy
Attempt #:
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				SAA @ 9.1 feet				
	0	~~90~~ 95	~~10~~ 5	SP: damp, dense, dark grey, ~~slightly silty~~ LM f-vf SAND. Trace wood fragments up to 1/2" - L and trace well decomposed black seams of wood (no wood present, only staining) at basal contact.			EW10-SC60-9-11.9	
11								
12				End of core @ 12.0 feet				
13								
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC61
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010, 1415
No. of Sections: 3	Core Logged By: McKee, Soccorsy
Drive Length: 14.0 feet	Attempt #: 1 of 1
Recovery: 13.3 feet	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 91%	Diameter of Core (inches) 3.75"
Notes: No depth ~~[illegible]~~ unsuccessfully established	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Show and tell antro sample @0.2ft				
	0	10	90	ML: moist, soft, olive grey, slightly very fine to fine sand SILT. Trace wood up to ½"-L @0.2': antropogenic 4.5" piece of plastic tubing with rust like coloration		NS 0.1	EW10-SC61 0-1	
	0	80	20	moderate seems and pockets of SM. SM with moderate wood fragments, sand is multicolor (red, black, beige, grey, white) ~~@1' grades to seams of SM~~ moderate H_2S odor (between 1 and 3)		NS		
	0	20	80	@ 2': grades to sandy SILT and diaganol layers of VF SM. VF to F with multicolor grains.		2.9	EW10-SC61 1-3	
				DRAFT				
						7.0	PS	
	0	10	90	SM: moist, med dense, dark grey, slightly silty SAND and moderate seems and layers of ML. Trace 1" wood fragments		37.2	EW10-SC61	
				VOID				
				ML: moist, med stiff, olive grey, very fine sandy SILT and seems and layers of SM. SM damp, med dense, slightly silty SAND. multicolored grains		155.5	3-5	
	0	95	5	SP: damp, dense, dark grey F SAND and silt pockets and layers. silt is (ML). moderate ~~trace~~ well decomposed wood ⅛"-L. wood in layers				
	0	2	98					

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC61 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010
No. of Sections: 2	Core Logged By: McKee, Soccorsy
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 4.8 feet			EW 10-SC 61 5-7	
						22		
6						45		
				@ 6.4': wood layers 1" thick w/ pieces 1.5"-L to basal contact				
7						7	EW 10-SC 61 7-9	
				SAA @ 4.8 and 6.4 feet				
8						15 170		
				DRAFT				
9 ~~10~~						19.2	EW 10 SC 61 9-11	
	0	2	98	ML: damp stiff, olive grey, SILT, and layers				
10	0	85	15	of SM.		~~0~~		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: SC61 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010
No. of Sections: ~~3~~ 2	Core Logged By: McLee, Soccorsy
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				SAA @ 9.7 feet			EW10-SC61 9-11	
11	0	0	100	@ 11.2': 1.5" diagonal layer of soft olive brown silt		0	EW10 SC61 11-12.7	
	0	30	70	@ 11.4' grades to sandy SILT				
	0	95	5	SP damp, dense, dark grey, F SAND				
12						0		
	0	2	98	~~@ 12.4~~ ML damp stiff, olive grey, ~~slightly~~ SILT				
13				end of core 12.7'				
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC63
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010, 1530
No. of Sections: 3	Core Logged By: McKee / Saccory
Drive Length: 14.0 ft.	Attempt #: 1 of 1
Recovery: 13.2 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 94%	Diameter of Core (inches) 3.75"
Notes: No historic depth to native	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	95	5	SP: moist, medium dense, dk gray, vf-SAND and ~~pockets~~, moderate pockets up to 1½" - ∅ of				
	0	0	100	ML (olive gray, soft, moist). Sand grains are multicolored (black, grey, red, white). Trace broken shells.		0	EW10-SC63-0-2	
1							geotech @ 1.2'	
						~~11.4~~ 14		
	0	0	100	ML: damp, stiff, olive gray, SILT. Texture is homogeneous and smooth		11.4		
2						13.9		
						4.5	EW10-SC63-2-4	
3							geotech @ 3.0'	
						0		
4							EW10-SC63-4-6	
	0	95	5	SP: damp, dense, dk. gray, vf-f-SAND				
5				OVER (ML)				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10 - SC63 continued
Date/Time: 3/2/2010
Core Logged By: McKee, Soccorsy
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		0	5	95	ML: moist, medium stiff, olive gray, SILT.		0	EW10-SC63-4-6	
6		0	90	10	SM: damp, dense, dk gray, slightly silty f-SAND. Grains are multicolored		0	EW10-SC63-6-8	
		0	10	90	ML: damp, stiff, olive gray, slightly f-sandy SILT				
7			85	15	SM: damp, dense, dk gray, slightly f-SAND. Grains are multicolored				
		0	5	95	ML: damp, stiff, olive gray, SILT. Rolls easily, smooth texture, and trace pockets of SM (as described above)				
8					DRAFT			EW10-SC63-8-10	
9							0		
					@9.9' grades to a ~~very~~ dry, brittle SILT to 10.0'				
10									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC63 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/2/2010
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				SAA @ 7.0 ft		0	EW10-SC63-10-12.5	
11	0	70	30	SM: damp, dense, dk gray ~~sandye~~ silty vf-SAND, and pockets, seams, layers of ML.		0		
12	0	30	70	ML: damp, stiff, olive gray vf sandy SILT.			No sample	
				End of core at 12.6 ft.				
13								
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.0 ft
Recovery: 13.5 ft
% Recovery: 96%
Notes: No historic depth estimated

Station ID: EW10 - SC23
Date/Time: 3/3/2010, 0830
Core Logged By: McKee / Soccorsy
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	15	85	ML: soft, moist, olive gray and black mottling, slightly f-sandy SILT. Trace wood fragments @ surface 1"-L.		0	EW10-SC23 0-1.3	wood
	0	75	25	SM: moist, medium ~~dense~~, dk gray, silty SAND, occassional wood fragments up to 1"-L. Sand grains are red and black. Trace shell fragments, (crab) ~~claw~~		0		
1						7.8		
	0	5	95	ML: moist, medium stiff, black SILT. ~~Trace~~ Moderate layers of wood-decomposed and up to 3"-L, some fresh (orange). Trace layers and seams of SM. Trace intact shells. Moderate to Strong H_2S odor and slight HC-like odor. Slight sheen upon homogenizing sediment for sampling.		68	EW10-SC23 1.3-3.2	
2						12.5		
						22		
3						5		
	0	80	20	SM: moist, medium dense, dk gray, ~~silty~~ f-SAND. Sand is multicolored. Moderate wood fragments up to 2"-L. Moderate pockets of ML (olive gray, soft, damp) up to 2"-Ø. Moderate H_2S odor. @ 3.8': 3"L x 1/2" thick piece of fresh, wood (orange)		0.5	EW10-SC23-3.2-5	wood
4				VOID SPACE			VOID	
				Appears to be a metallic sheen on surface sediment just below wood piece noted at 3.8 ft.		0		
	0	5	95	ML: damp, stiff, olive gray SILT. Occassional decomposed wood fragments up to 3"-L. (over)				
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 9
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC23 continued
Date/Time: 3/3/2010, 0830
Core Logged By: McKee, Saccorsy
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		0	5	95	SAA @ 4.7 ft. Silt is smooth and homogeneous. Trace fibrous wood up to 5"-L. Trace seams and layers of SM and SP		0		
6		0	80	20	@6.5': seam of SM (diagonal)		0	EW10-SC23-5-7	
7		0	95	5	7.6': 2" Layer of SP		0	EW10-SC23-7-9	
8					VOID SPACE			VOID SPACE	
		0	80	20	@ 8.6': seam of ~~Seam~~ Sand (SM) (diagonal)		0		
9		0	0	100	@ 8.8' SILT grades to very smooth silt; sand seams increase to moderate				
		0	70	30	SM: damp, dense, dk. gray ~~sandy~~ silty f-SAND. Trace wood layers of fine (1/2"-L) wood. Trace seams of ML.		0	EW10-SC23-9-11	
10					OVER				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC23 continued
Date/Time: 3/3/2010, 0830
Core Logged By: McKee, Sacorsy
Attempt #: 0
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		0	2	98	ML: damp, stiff, ~~dk~~ olive gray, clayey SILT. Trace 3"-L x 3/4" ~~D~~ wood fragments. Occassional layers and seams of SM - f to medium grained.		0	EW10-SC23-9-11	
11		0	95	5	SP: damp, dense, dk gray, f SAND. Grains are multicolored. Trace 1/4"-L wood fragments.		0	EW10-SC23 11-12.9	
12		0	5	95	ML: damp, stiff, olive gray SILT.				
		0	95	5	SP: SAA @ 10.9' wood up to 3"-L.		0		
13					End of core @ 12.9 ft				
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EWIV-S27
Job No. 060003-01.17 Task 2	Date/Time: 3/3/2010 1025
No. of Sections: 3	Core Logged By: Dixon / Soccorsy
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 13.2 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 94%	Diameter of Core (inches) 3.75"
Notes: No historic depth to native	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	–	10	90	ML: Damp, soft, black w/olive gray slightly VF-sandy SILT, trace fresh brown wood, moderate H_2S-like odor, trace metallic sheen when homogenized.		32.5	EWIO-SC27-0-2	
	–	–	–	@1.6', ~1" layer of damp, soft, black, slightly VF-sandy SILT, moderate (30%) decomposed wood fibers.		36.2		
	–	–	–	– @2.4' grades to		15		
	–	5	90	ML: damp, med. stiff, black w/ olive gray mottling SILT, trace VF-sand, trace decomposed black wood fibers. slight HC-like odor.		5.1	EWIO-SC27-2-4	
						9.0		
						2.1		
						0.3		
				@4.5: intact 3" Ø shell			EWIO-SC27-4-6	

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC27 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/3/2010 1020
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 2.4', no odor.			EW10 -SC27 -4-6	
6						1.0	EW10 -SC27 -6-7.7	
7								
		85 (-)	15 (100)	SM: dense, damp, dark gray, silty VF-SAND, trace stiff, damp, light gray SILT pockets (ML) up to 3" ⊖, VOID SPACE		4.3		
8				sand grains are multicolored. SAA @ 7.7'			EW10 -SC27 -7.7-10	
9				DRAFT				
10				@9.7': 1" layer of decomposed wood fragments up to 3" L				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC27 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/3/2010 1020
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				SAA @ 7.7'				
				@10.3': 1" layer of shell fragments				
11	—	2 (85)	98 (15)	ML: stiff, damp, olive gray SILT, trace VF-sand, moderate (30%) damp, dense, dark gray silty VF-SAND), trace wood fragments up to 1" L.			EW10 SC27 10-12.5	
				interbeds, layers and seams of				
12								
				End of core @ 12.5'				
13				DRAFT				
14								
15								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC30
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1120
No. of Sections: 3	Core Logged By: Olson / Soccorsy
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.7	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 98%	Diameter of Core (inches) 3.75'
Notes: No historical depth estimated.	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	-	5	95	ML: soft, moist, olive gray w/ black mottling, SILT, trace VF-sand. Silt is smooth and homogenous		0	EW10-SC30-D-2	
				@1': grades to stiff				
				@1.4': One coarse subangular gravel 2" Ø				
				DRAFT			EW10-SC30-	
							2-4.3	
				@3.7: 1/2" layer of black decomposed wood fragments upto 3" L.				
				@4.1: Fresh piece of wood, 3" L (yellow)		0		VOID
				VOID				
				SHA @ 0'				
	-	15 (60)	85 (40)	ML: damp, stiff, olive gray slightly VF-sandy SILT, substantial seams, layers, and interbeds and pockets (1" Ø) of very silty VF-SAND (SM) med. dense, damp, dark gray. sand grains are multicolored		3.5 9.2	EW10-SC30-4.3-6	

Slight H_2S-like odor.

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC30 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1120
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 4.3		~~0~~ 4.6	EW10-SC30-4.3-6	
				@5.7': 1/2" layer of black decomposed wood up to 1" L.		0.6		
6								
7							EW10-SC30-6-8	
				DRAFT				
8								
9							EW10-SC30-8-9.7	
	—	85	15	SM: Damp, dense, dark gray slightly silty F-VF				
10	—	(40)	(60)	SAND, trace, damp, med. ~~stiff~~ stiff, olive gray very VF sandy seams of SILT (ML), trace wood fibers up to 1" L Sand grains are multicolored (red, black, white, beige)				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EWW-SC30 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1120
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					SAA @ 9.7'		Ø	EWW-SC30-10-12	
11									
12			10 (60)	90 (40)	ML: damp, stiff, olive gray slightly VF-sandy SILT, occasional seams, layers and pockets (½") damp, dense, dark gray very silty VF-SAND (SM).			EWW-SC30-12-13.2	
13					End of core @ 13.2'				
14					DRAFT				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC29
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1345
No. of Sections: 3	Core Logged By: Olson / Soccorsy
Drive Length: 14	Attempt #: 1 of 1
Recovery: 12.4	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 89%	Diameter of Core (inches) 3.75"
Notes: No historical depth estimated	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	-	5	95	ML soft, moist, black w/ olive gray mottling, SILT. trace VF-sand, ~~occasional~~ trace intact shell fragments up to 2"L, occasional wood fibers/fragments up to 1½"L. Moderate H_2S-like odor. Silt is smooth + homogenous.		0.4		
						26.4	EW10-SC29-0-2	
1						38.1		
				@1.7': grades to medium stiff.		7		
2						77.8		
				DRAFT		100	EW10-SC29-2-3.9	
3						80		
						30		
4	95	-	5	GM: Med. dense, moist, black to olive gray F-C Gravel, trace silt. Gravel is angular, black, up to 1" Ø. Slight H_2S-like odor		77		
						15	EW10-SC29-3.9-6.4	
5						14		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 · SC29 cont
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1345
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5					SAA @ 3.9'		17	EW10-SC29-3.9-6.4	
6					DRAFT		6		
		-	2	98	ML: med stiff, damp, light gray, SILT, trace VF-sand, trace HC-like odor.		12.3		
7		5	2	93	@6.7': grades to black, trace decomposed wood and shell fragments up to 2½" L, trace rainbow sheen florets. (8.2, 8.6')		4.4	EW10-SC29-6.4-8	
					(occasional subangular gravel up to ½" ⌀		9.3		
							1.0		
8					@8.2: 1" ⌀ rainbow sheen floret @8.3': One white, crumbly mass, 3/4" L. Show + tell bag @8.6': Subrounded cobble 3" ⌀, trace sheen florets, rainbow ½" ⌀.		0.8		
9							5.7	EW10-SC29-8-9.7	
							2.3		
0		~	98 (15)	2 (85)	@9.7: SP: med dense, damp, dark gray VF-F SAND, trace silt, moderate (20%) pockets up to 3" ⌀ of stiff,				

damp, olive gray slightly VF-sandy SILT (ML). Sand grains are multicolored, moderate H_2S odor.

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC29
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1345
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					SAA @ 9.7'		6		
							1	EW10-SC29	
			5	95	MC: med stiff, damp, drk gray w/olive gray mottling, SILT, trace VF-Sand, moderate (25%) ~~dens~~ layers and seams of dense, damp				
11			(55)	(45)	drk gray very silty VF-F SAND (SM). Sand grains are multicolored, no odor			9.7-11.7	
					End of core @ 11.7'				
12									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC32
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1530
No. of Sections: 3	Core Logged By: Olson / Sercorsy
Drive Length: 14	Attempt #: 1 of 1
Recovery: 3.9	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 99%	Diameter of Core (inches) 3.75
Notes: large dent in top section 0-14 ft expected historical	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	—	5	95	ML: soft, moist, black w/ olive gray mottling SILT, trace vF-sand, trace wood fibers, trace metallic sheen florets up to 1/2" ⌀, ~~slight~~ moderate HC-like odor, moderate H_2S-like odor, silt is smooth and homogenous		6.3		
						15.2		
						59	EW10-SC32-0-2	
1						135		
				@1.4': grades to med. stiff, silt is homogenous and hummocky		NA*		
2								
3				DRAFT			EW10-SC32-2-4	
4							EW10-SC32-4-6	
5								

*PID not available after 1ft due to malfunction

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC32
Job No. 060003-01.17 Task 2	Date/Time: 3/3/10 1530
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5					SAA @ 1.4'			EW10-SC32-4-6	
6			2	98	@6': grades to slightly clayey SILT, silt is gummy, rolls easily				
7					DRAFT			EW10-SC32 6-8.9	
8								X	
9			5 (85)	95 (15)	ML: med. stiff, damp, olive gray slightly VF-sandy SILT, substantial (40%) interbeds, layers and seams of med. dense, damp, dark gray slightly silty VF-SAND (SM). Sand grains are multicolored.			EW10-SC32-8.9-10.9	
10									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC32
Date/Time: 3/3/10 1530
Core Logged By:
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					SAA @ 8.9'			EW10 -SC32 -8.9-10.9	
11								EW10 -SC32 -10.9-12.9	
12					DRAFT				
13					End of Core 12.9'				
14									
15									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC33
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 0830
No. of Sections: 3	Core Logged By: Dixon / Dunay
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.4	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 96%	Diameter of Core (inches) 3.75
Notes: NA historical info	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID ppm	Sample	Summary Sketch
		5	95	ML: Soft, moist, black, olive gray mottling, SILT, trace ~~SX~~ f-Sand, occasional biota (worm tubes), trace shell fragments trace anthropogenics (plastic piece 1" long) @0.6' grades to med. stiff trace H_2S odor		~~NA~~*	EW10 SC33 0-2	
						1.8*		
				DRAFT				
						~~7.7~~* 22.5	EW10 SC33 2-3.5	
						22		
		2 (10)	98 (90)	@3.5 ML: med stiff, damp, light gray-olive gray, SILT, trace f sand, moderate (20%) Seams ~~of~~ and pockets of med-dense, damp, dark gray, slightly silty, vf-SAND (SM) s. grains are multicolored, trace shell fragments up to 1" long		16.5		
				@4.1' black "charcoal-like" angular pieces up to 2" long in diameter		1.0	EW10 SC33 3.5-5.8	
						0.5		

~~* PID readings not available due to malfunction~~

* taken after Sampling

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC33 cont
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 830
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		98 (30)	2 (70)	SP: dense, damp, dark gray, vf-SAND, trace silt, ~~trace~~ occassional pockets (up to 2" in diameter) of stiff, damp, olive-gray, ~~SILT,~~ vf-sandy SILT (ML) Sand grains multicolored, occasional interbeds of decomposed wood up to 3" long (orange) trace shell fragments @ 5.8'			EW10 SC33 3.5-5.8	
6							EW10 SC33 5.8-8	
7				DRAFT		2.2		
8				@ 8.3' 2" layer of decomposed wood			EW10 SC33 8-9.8	
9				@ 9.1 Same as 8.3'				
				@ 9.5 Same as 8.3'				
9.8 10				description on next page			See next page	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC33 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 830
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ ~~Mudmole~~ ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10			15 (85)	85 (15)	@ 9.8 ML: stiff, damp, olive gray, vf-sandy SILT, occasional (10%) layers and seams of med dense, moist, dark gray, silty vf-SAND (SM)			EW10 SC33 9.8-12	
11									
12								EW10 SC33 12-13	
					END OF CORE @ 13'				
13									
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-51 SC
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 0930
No. of Sections: 3	Core Logged By: Olson / Dunay
Drive Length: 14	Attempt #: 1 of 1
Recovery: 12.3	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 88	Diameter of Core (inches) 3.85
Notes: Historical estimated lower Alluvium 0-2 ft	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1		30 (84)	70 (20)	ML: Stiff, moist-damp, olive gray, vf-sandy SILT, substantial seams, layers, and interbeds of dense, damp, dark gray, silty vf-SAND (SM) sand grains are multi-colored No ODOR		ø	EW10 SC51 0-2	
2				DRAFT			EW10 SC51 2-3.8	
3				@3.8'				
4		98 (15)	2 (85)	SP: med dense, damp, dark gray vf-SAND, trace silt, substantial seams layers and interbeds of stiff olive gray with black mottling slightly vf-sandy SILT (ML)			EW10 SC51 3.8-6	
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-51 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 0930
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 3.8'		Ø	EW10 SC51 3.8-6	
6							EW10 SC51 6-8	
7				DRAFT				
8								
				VOID				
9							EW10 SC51 8-10	
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-51 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 0930
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as above @ 3.8'		Ø	EW10 SC51 10-11.4	
				END OF CORE @ 11.4'				
				~~END OF CORE~~ PD				
12				Adjusted interval based on field notes "Sediment fell out bottom of core in section C"				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.		Station ID:	EWSC101 (10)
Job No. 060003-01.17 Task 2		Date/Time:	3/4/10 1015
No. of Sections:	3	Core Logged By:	Olson / Dunlap
Drive Length:	14	Attempt #:	2 of 2
Recovery:	13.3	Type of Core	☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery:	95%	Diameter of Core (inches)	3.85
Notes:	NA (Historical info)	Core Quality	☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID ppm	Sample	Summary Sketch
		98	2	SP: med dense, damp, dark gray, f-SAND, trace silt, (80%) moderate pockets and layers of stiff,		0.4	EWSC 101 (10) 0-2.3	
		(40)	(60)	damp, olive gray, very fine Sandy SILT (ML), occasional wood fragments up to 1" long (yellow), trace shell fragments, Sand grains multicolored				
1								
2								
		80	20	SM: med dense, damp, dark gray, ~~20%~~ silty vf- SAND, substantial Seams, layers, and interbeds of stiff,		Ø	EW10 SC101 2.3-4	
3		(40)	(60)	damp, olive-gray, Very fine Sandy SILT (ML) NO ODOR Sand grains multicolored				
4							EW10 SC101 4-5.9	
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC101 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/6 1015
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
						Ø	EW10 SC101 4-5.9	
6		20	80	ML: Stiff, damp, olive gray, vf sandy SILT, substantial seams layers and interbeds of med dense, damp, dark gray, silty vf-SAND (SM). No odor		Ø	EW10 SC101 5.9-8	
		(70)	(30)					
7								
8				DRAFT				
						Ø	EW10 SC101 8-10	
9								
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EWSC101 cont
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1015
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 5.9'		Ø	EW10 SC101 10-12.7	
11								
				DRAFT				
12				END OF CORE @ 12.7'				
13								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC100
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1100
No. of Sections: 3	Core Logged By: Olson / Dunay
Drive Length: 14'	Attempt #: 1 of 1
Recovery: 13.6	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 97%	Diameter of Core (inches) 3.85
Notes: NA (Historical info)	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1	5	15	80	ML: soft, moist, black with olive gray mottling m-sandy SILT, trace subrounded gravel up to 1/2" diameter No odor gravel color is gray Sand grains are green, white, red beige		0	EW10 SC100 0-1.1	
2		85 (5)	15 (95)	SM: dense, damp, dark gray, silty vf-SAND, substantial seams, layers, interbeds of med stiff, damp, olive-gray, SILT, trace vf-sand (ML) Sand grains are multicolored			EW10 SC100 1.1-3	
3				DRAFT			EW10 SC100 3-5	
4				VOID				
5								

Page 1 of 3

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC100 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1100
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 1.1'		Ø	EW10 SC101 5-7	
6								
				DRAFT				
7							EW10 SC101 7-9	
8								
9							EW10 SC101 9-11	
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC100 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1100
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 1.1'		Ø	EW10 SC100 9-11	
				@ 10.8 1/2" ~~seam~~ layer of wood fibers up to 2" long				
11							EW10 SC100 11-13	
				DRAFT				
12								
13				END OF CORE @ 13'				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC26
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1330
No. of Sections: 3	Core Logged By: Olson / Dunay
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.2	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 94%	Diameter of Core (inches) 3.85
Notes: No information (NA)	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1		98 (10)	2 (90)	SP: Med dense, damp, dark gray, vf-f-SAND, trace silt, moderate (15%) layers, seams, and pockets (up to 1/2" diameter) of med stiff, black to olive-gray, damp, slightly vf-sandy SILT (ML). Sand grains multi-colored trace wood fibers and fragments up to 1" long.		ø	EW10 SC26 0-2.7	
2				DRAFT				
3		15 (80)	85 (20)	ML: Stiff, damp, olive-gray, vf-Sandy SILT, substantial seams, layer, interbeds, and pockets (up to 1" diameter) with black mottling of dense, damp, dark gray silty vf-SAND (SM)			EW10 SC26 2.7-4	
4							EW10 SC26 4-6	
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC26 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1330
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				Same as above @ 2.7'		Ø	EW10 SC26 4-6	
6							EW10 SC26 6-8	
				DRAFT				
7								
8							EW10 SC26 8-10	
9								
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC26 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1330
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as above @ 2.7'		Ø	EW10 SC26 10-12.6	
12				END OF CORE @ 12.6'				
13								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC13
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1415
No. of Sections: 3	Core Logged By: olson / Dunay
Drive Length: 14	Attempt #: 1 of 1
Recovery: 11.8	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 84%	Diameter of Core (inches) 3.85
Notes: Historical Estimated lower Alluvium 2.8-11	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1			100	ML: Soft, moist, black with olive gray motteling SILT, trace shell fragments up to 1" diameter.		Ø	EW10 SC13 0-1.6	
2	25	75	0	SW: dense, damp, grayish brown fine to coarse SAND, gravelly trace cobbles (3), up to 3" diameter cobbles + gravel are rounded gravel is fine to coarse Sand grains are white, beige, green, black, brown.		Ø	EW10 SC13 1.6-4	
3								
4						Ø	EW10 SC13 4-6.2	
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 SC13 cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/4/10 1415
No. of Sections:	Core Logged By:
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID ppm	Sample	Summary Sketch
6				Same as above @ 1.6'			EW10 SC13 4-6.2	
				DRAFT		8.5		
7		2 (80)	98 (20)	ML: stiff, damp, olive gray with black mottling SILT, trace vf-Sand, moderate seams, layers, and pockets of med dense, damp, dark gray, silty vf-SAND (SM). Sand grains multicolored moderate H_2S odor			EW10 SC13 6.2-8.8	
				@7.3' 2" ~~layer~~ interbed of black SILT, moderate wood fibers, ~~with~~ moderate HC-like odor.		1.8		
8							~~EW10 SC13 8-10~~	
9		98 (40)	2 (60)	SP: dense, damp, dark gray, fine-vf SAND, trace silt occasional pockets and seams of stiff damp, olive gray, very vf-sandy SILT (ML) occasional shell fragments up to 1" long Sand grains are multicolored trace wood fragments up to 1" long			EW10 SC13 8.8-11.2	
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10 SC13 cont.
Date/Time: 3/4/10 1415
Core Logged By: Olson / Dunay
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11				Same as above @ 8.8'		Ø	EW10 SC13 ~~to 11.2~~ 8.8-11.2 (cont)	
				END OF CORE @ 11.2'				
12				DRAFT				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC54
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 - 1330
No. of Sections: 2	Core Logged By: Olson / Howard
Drive Length: 14'	Attempt #: 1 of 1
Recovery: 9.9'	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 71%	Diameter of Core (inches) 3.75"
Notes: No historical depth to native estimate	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	30	50	20	SM: medium dense, damp, black, silty gravely f-SAND, coarse gravel subrounded (up to 2" diam) and fine gravel subangular, slight metallic sheen, slight HC-like odor. Trace biota (worms) near surface.		2.5	EW10-SC54-0-2	
		2	98	ML: soft, moist, black SILT, trace f-sand, slight HC-like odor. @1.7': thin clear plastic piece ~3", moderate black angular chunks (easy to break apart)		2.5 9.0		
		5	95	ML: medium stiff, damp, olive gray, SILT, VF-sand, substantial wood fragments/organic material (up to 8" long) decomposed (yellow/redish), moderate H_2S odor		7.3 7.8 63 20	EW10-SC54-2-4	
						75	EW10-SC54-4-6	

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC54
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 - 1330
No. of Sections:	Core Logged By: Olson / Howard
Drive Length: see page 1	Attempt #: 1 of 1
Recovery:	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
					SAA @ 2.0		65	↓	
6									
					DRAFT		29.5	EW10-SC54-6-8	
7									
							38.2		
8			(98)	(2)	@ 8.0'-8.4' = interbed of SP: dense, damp, dark gray SAND, occasional seams of ML		13	EW10-SC54-8-9.2	
9					@ 9.0' - wood chunk (2")				
					End of core @ 9.2'				
10									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14'
Recovery: 12.3'
% Recovery: 88%
Notes: Historical estimated depth to native is 0-2

Station ID: EW10-SC53
Date/Time: 3/5/10 - 1235
Core Logged By: Olson / Howard
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1		(60)	(40)	ML: medium stiff, moist, olive gray with black mottling, SILT, substantial seams, pockets (up to 1/16" diam) of medium dense, damp, dark gray, very silty f-SAND (sm) 100 Occasional wood fibers, trace biota (worm tubes), sand grains multi-colored @ 1.1': piece of plastic - 3" long @ 2.1': piece of gum-like material		Ø	EW10-SC53-0-2	
2				DRAFT		Ø	EW10-SC53-~~2-3.2~~ 2-4	
3		95	5	3.2 SP: medium dense, damp, dark gray, F-VF SAND, trace silt, moderate (30%) seams, layers and pickets (up to 2" diam) of stiff, damp, olive gray, very VF-sandy SILT (ML).			EW10-SC53-3.2-5	
4		(40)	(60)	Trace wood layers of decomposed wood (up to 1" long), moderate H_2S odor	VOID	Ø		
5								

Note: Sample interval 2-3.2' was inadvertently sampled from 2-4'. The next sample interval was started at 3.2' due to lithology.

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC53
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 - 1235
No. of Sections:	Core Logged By: Olson / Howard
Drive Length: see page 1	Attempt #: 1 of 1
Recovery:	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 3.2'				
6							EW10-SC53-5-7	
				DRAFT		1.7		
7								
8				@8.0' = Grades to trace silt seams		Ø	EW10-SC53-7-9 (sample collected from side w/o winnowing)	Winnowing
9							(see page 3)	
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length: see page 1
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC53
Date/Time: 3/5/10 - 1235
Core Logged By: Olson / Howard
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
11					SAA @ 8.0'		Ø	EW10-SC53-9-11.8	
12					End of core @ 11.8'				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC52
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 - 1050
No. of Sections: 3	Core Logged By: Olson / Howard
Drive Length: 14'	Attempt #: 1 of 1
Recovery: 12.7'	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 91%	Diameter of Core (inches) 3.75"
Notes: Historical estimated depth to native is 5-25	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1		15	85	ML: soft, moist, black with olive gray mottling; f-sandy SILT, occasional shell fragments, trace biota (worm tubes), trace fresh wood (up to 2" long - orange)		3.3	EW10-SC52-0-2	
2		80	20	2.0 SM: medium dense, damp, dark gray, silty f-SAND, substantial seams, layers, interbeds, pockets (up to 2" diam.) of stiff, damp, olive gray, very-VF sandy SILT (ML).		7.7	EW10-SC52-2-4	
3		(40)	(60)	Trace shell fragments; trace wood fragments @2.3': 8" interbed of substantial wood fragments, -3.0' fresh (up to 4" long; yellow) Sand grains multi-colored, moderate H_2O odor		0.3		
4				VOID				
5				DRAFT			EW10-SC52-4-6	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length: see page 1
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC52
Date/Time: 3/5/10 - 1050
Core Logged By: Olson / Howard
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @2.0			↓	
6								
				DRAFT			EW10-SC52-6-8	
7						Ø		
				VOID				
8								
							EW10-SC52-8-10	
9						Ø		
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length: see page 1
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC52
Date/Time: 3/5/10 - 1050
Core Logged By: Olson / Howard
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
					SAA @ 2.0		ϕ	EW10-SC52-10-12	
11									
12					End of core @ 12.0'				
13					DRAFT				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14'
Recovery: 11.8'
% Recovery: 84%
Notes: Historical estimated depth to native is 0-17'

Station ID: EW10-SC50
Date/Time: 3/5/10 - 0930
Core Logged By: Olson / Howard
Attempt #: 1 of 1
Type of Core: ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches): 3.75"
Core Quality: ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
1	5	15	80	ML: soft, moist, black with olive gray mottling, F-sandy SILT, trace sub-rounded gravel up to 1" diam., trace biota (worm), trace shell fragments and wood fibers, moderate H_2S odor			EW10-SC50-0-1.6	
				@1.3 - 2" layer of black angular chunks (easy to break apart), one metal rod (like rebar) 4" long		3.8		
2		2 (98)	98 (2)	1.6 ML: medium stiff, damp, olive gray SILT, moderate seams and layers of medium dense, damp, dark gray F SAND, trace silt (SP), sand grains multi-colored. Trace shell fragments and fresh wood fragments (up to 2" long - yellow)		4.0	EW10-SC50-1.6-4	
3		95 (30)	5 (70)	2.8 SP: medium dense, damp, dark gray, VF to F SAND, trace silt, moderate (30%) seams, layers, interbeds, pockets (up to 3" diam.) of medium stiff, damp olive gray VF-sandy SILT. Sand grains multi-colored, occasional wood layers (fragments up to 2"), moderate H_2S odor		13 23 13		
4				VOID				
				@2.9': rubber piece 4" long (looks like piece of tire)		13	EW10-SC50-4-6	
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC50
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 -0930
No. of Sections:	Core Logged By: Olson / Howard
Drive Length: see page 1	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 2.8		6.3	↓	
						20		
6						8.8		
				DRAFT		10	EW10-SC50-6-8	
7						1.8		
						0.2		
8								
		40	60	84 ML: stiff, damp, olive gray; Very VF sandy SILT, moderate (25%) seams and layers of medium dense, damp, dark gray, VF-SAND, trace silt (SP). Sand grains multi-colored		0	EW10-SC50-8-10	
9		(95)	(5)					
0								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length: see page 1
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC50
Date/Time: 3/5/10 - 0930
Core Logged By: Olson / Howard
Attempt #:
Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 8.4'		Ø	EW10-SC50-10-11.3	
11								
				End of core @ 11.3'				
12				DRAFT				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC48
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 0830
No. of Sections: 3	Core Logged By: Owen / Howard
Drive Length: 14	Attempt #: 1 of 1
Recovery: 13.5	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 96%	Diameter of Core (inches) 3.75"
Notes: Historical estimated depth to native is 3-21'	Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0								
		10	90	ML: soft to medium stiff, moist, olive gray with black mottling, slightly VF-sandy SILT, occasional biota (worms) from 0-0.5', trace shell fragments, trace sand seam @ 3.2', no sheen throughout except @ seam, moderate H_2S odor -occasional wood fragments and fibers (up to 1")		6.2	EW10-SC48-0-2	
1								
2				DRAFT				
3				@3.2': 1/4" seam medium dense, damp, black, slightly silty sand (SM), moderate to heavy sheen and moderate HC-like odor		Ø	EW10-SC48-2-4.7 (Note: three spoon scoops taken from 4.7-5.2')	
4				VOID				
				@4.7' (see page 2 of 3)				
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC48 cont
Job No. 060003-01-17 Task 2	Date/Time: 3/5/10 830
No. of Sections:	Core Logged By: Olson / Howard
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		8 98	98 2	SP: medium dense, moist, dark gray, VF ~~sand~~ SAND, trace silt, moderate seams, layers, interbeds, pockets (up to 1½" diameter) of medium stiff, damp, olive gray, VF-sandy SILT (ML), trace shell fragments, trace wood (small twigs) up to 2" long		Ø	EW10-SC48-4.7-6	
6		(30)	(70)	-sand grains multi-colored				
7				DRAFT		Ø	EW10-SC48-6-8	
8				VOID				
				SAA @ 4.7'				
9				@9.0' grades to VF to F SAND		Ø	EW10-SC48-8-10	
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC48 (cont.
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10 0830
No. of Sections:	Core Logged By: Olson / Howard
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				SAA @9'				
						Ø	EW10-SC48-10-12	
11				DRAFT				
12				@12' grades to moderate wood layers (½" layers); wood is decomposed up to 2" long; brown				
						Ø	EW10-SC48-12-13.1	
13				End of core @ 13.1'				
14								
15								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10SC31
Job No. 060003-01.17 Task 2	Date/Time: 3/8/2010, 0830
No. of Sections: 3	Core Logged By: McKee/Lee
Drive Length: 14.0'	Attempt #: 1 of 1
Recovery: 13.1'	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 94%	Diameter of Core (inches) 3.75"
Notes: No depth to native anticipated	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	95	5	(FILL) SW: moist, loose, light gray, poorly sorted m-SAND, grains are brown, green, white, gray vf-vc-SAND		0	No sample to 2.7	
1	0	60	40	SM: moist, m-dense, dark gray, very silty SAND, moderate seams and pockets of ML: moist, m-stiff, olive gray, SILT. Trace wood up to 1/4" long. Sand grains are very fine and multi-colored (red, black, white, dark gray) Slight H_2S odor		0		
	0	2	98			0.1		
2				DRAFT		0		
3				@ 3.2: silt pockets increase to substantial (up to 3" ϕ). sand grains to fine		0	EW10-SC31-2.7-5.3	
4	0	2	98	ML: damp, m-stiff, olive gray, slightly clayey SILT, smooth, homogeneous, rolls easily. Trace seams of sand w/ multi-colored grains and trace shell fragments.		0		
5	0	85	15	SM: moist to damp, m-dense, dark gray, slightly ~~silty~~ silty vf-SAND and trace layers and pockets of ML		0		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC31 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/5/10, 0830
No. of Sections:	Core Logged By: McKee, Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @ 4.6		0		
	0	2	98	ML: damp, m-stiff, black, slightly clayey SILT		0	EW10-SC31	
6				~~diagonal contact~~				
	0	60	40	SM: moist to damp, dense, dark gray, very silty SAND, sand grains are multi-colored, moderate pockets and layers and seams of ML			5.3-7.3	
	0	2	98			0		
7								
	0	95	5	SP: damp, dense, dark gray, f-SAND, and occasional seams and layers of ML				
	0	2	98			0	EW10-SC31 7.3-9.3	
8				DRAFT				
						0		
9								
						0	EW10-SC31 9.3-11.3	
				@ 9.8: sand grades to ~~coarse~~ fine to med. SAND				
10								

OVER

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC31 continued
Date/Time: 3/8/2010, 0830
Core Logged By: McKee, Lee
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		0	2	98	ML: slightly clayey damp to dry, stiff, olive gray, SILT homogeneous, smooth, rolls easily		0	EW10-SC31 9.3-11.3	
11							0	EW10-SC31-11.3-12.3	
12		0	85	15	@12.0: seam of SM				
		0	85	15	@12.2: seam of SM				
					END OF CORE				
13									
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14'
Recovery: 12.8
% Recovery: 96%
Notes: Est. depth to native 0.6' below mudline

Station ID: EW10-SC24
Date/Time: 3/8/2010 / 1021
Core Logged By: McKee, Lee
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	~~1~~ 5	~~98~~ 95	~~ML(?) ML(OL?)~~ ML(OL?): soft, moist, olive gray, slightly fine sandy SILT, strong H_2S odor				
	0	80	20	@0.5 layer of med. sand (SM)		2.0	EW10-SC24 0-2	
1				@1.2: 2" long chunk of wood (2"x2")				
				@1.5: grades to black color		11.5		
2				@2.0: competency increases to m-stiff, grades to slightly clayey SILT, trace sand seams (SM) and trace pockets of light gray silt.		8.5	EW10-SC24 2.0-4.7	
				@2.6: 1.5" long shell fragment				
3						5.7		
				DRAFT				
4	5	0 ~~5~~	95 ~~90~~	@4.0: grades to trace fine gravel and moderate seams of SM		0.1		
				@4.7: 1" ∅ gravel				
	0	80	20	SM: moist, m-dense, silty fine SAND, and moderate seams, layers and pockets of ML			EW10-SC24 4.7-6	
5				@4.9: 1.5" ∅ gravel				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC24 continued
Date/Time: 03/08/2010/1021
Core Logged By: McKee, Lee
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				same as above @ 4.7 grains are multicolored (red, black, dark gray, white)		~~3.6~~ 1.4	EW10-SC24 4.7-6	
6						1.2		
						0.4	EW10-SC24 6-8	
7						0		
	0	2	98	ML: damp, stiff, olive gray, slightly clayey SILT, smooth homogeneous trace seams of SM				
8						0	EW10-SC24 8-10	
9						0		
10						0		

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EWID-SC24 continued
Date/Time: 3/8/2010
Core Logged By: McKee, ML
Attempt #:
Type of Core ☒ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				Same as above @ 7.3'				
						0		
				@10.8: grades to moderate seams of SM				
11								
						0		
12								
				DRAFT				
						0		
13								
				END OF CORE				
4								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14'
Recovery: ~~9~~ 13'
% Recovery: 93%
Notes: depth to native est 8-11' below mudline

Station ID: EW10-SC25
Date/Time: 03/08/2010 - 1100
Core Logged By: McKee, Lee
Attempt #: 1 of 1
Type of Core: ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches): 3.75"
Core Quality: ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	20	80	ML: wet to moist, soft, olive gray, slightly fine to med. sandy SILT		0	No sample 0-0.8 XXX	
1	30	~~30~~ 40	~~40~~ 30	(FILL) SW: moist, loose, light gray, poorly sorted, med SAND, grains are brown, green, white, gray, vf to vc sand		0		
	0	90	10	SM: moist, m-dense, very silty fine SAND. Gravels are 1" ø by 3" long, gravelly sand grains are gray, black and white.		0	EW10-SC25 0.8-2.8	
2	~~0~~ ~~0~~ ~~0~~	~~20~~ ~~20~~ ~~2~~	~~80~~ ~~80~~ ~~98~~	SM: damp, dense, dark gray, slightly silty SAND, sand grains are multi-colored (red, black, dark gray, white)		0		
	0	0	100	ML: damp, stiff, olive gray ~~sandy~~ SILT, and trace sandy layers and seams of soft, light gray SILT (ML)		0		
3				DRAFT		0	EW10-SC25 2.8-4.8	
4				@3.7 to 4.1: layer of soft, light gray SILT (ML)		0		
5				@4.7: seam of ML		0		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC25 continued
Date/Time: 03/08/2010 - 1100
Core Logged By: McKee, Lee
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				same as above @ 2-2				
	0	2	98	ML: damp, med. stiff, olive gray, slightly clayey SILT and substantial seams and layers of SM		0	EW10-SC25 4.8-6.8	
	0	80	20			0		
6				@ 6.1: grades to moderate seams and layers of SM silt grades to stiff		0		
7						0		
				DRAFT		0	EW10-SC25 6.8-8.8	
8						0		
	0	0	100	ML: damp, stiff, olive gray, slightly clayey SILT		0		
9				@ 9.1: texture becomes blocky		0	EW10 SC25 8.8-10.8	
				ML: damp, ~~med~~ stiff, olive gray, slightly clayey SILT and substantial seams and layers of SM		0		
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC25 continued
Date/Time: 03/08/2010 - 1100
Core Logged By: McKee, Lee
Attempt #:
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				same as above @ 9.5		0	same as above @ 8.8	
11				@ 11.2: grades to moderate seams of SM		0	EW10-SC25 10.8-12.8	
2						0		
				ML: damp, stiff, olive gray, slightly clayey SILT		0		
3				END OF CORE				
4								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14.0'
Recovery: 13.6'
% Recovery: 97%
Notes: No depth to native determined in core

Station ID: EW10-SC22
Date/Time: 3/8/2010, 1245
Core Logged By: McKee, Lee
Attempt #: 1 of 1
Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
Diameter of Core (inches) 3.75"
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	85	85	ML: soft, moist, olive gray and black mottling, slightly fine sandy SILT				
	0	85	15	SM: moist, med-dense, dark gray, silty SAND and occasional pockets and seams of ML (same as above).				
1	0	40	60	Trace wood seams, wood is shredded and up to 1/4" long. sand grains are multi-colored (red, black, white, dark gray) @0.3 on sidewalls: medium SAND @ 0.8 (soft contact) @0.8: ML: moist, med-stiff, olive gray, slightly clayey SILT and moderate seams and layers of SM (as above) Trace seams of wood, 3.5" long piece @ 1.2'			EW10-SC22-0-1.9	
2	0	95	5	SP: moist to damp, dense, dark gray, fine SAND. sand grains are multi-colored, Trace seams and layers of wood up to 1/4" long, yellow color.			EW10-SC22-1.9-4	
3				DRAFT				
4				@ 4.5 grades to SP with moderate seams, layers and pockets of ML (as above)			EW10-SC22-4-6	
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC22 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/8/2010 1245
No. of Sections:	Core Logged By: LMcGee, Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				same as above ~~@ 4.7'~~ @ 4.5'			same as above EW10-SC22-4-6	
6							EW10-SC22-6-8	
7				DRAFT				
8								
9	0	85	15	SM: damp, dense, dark gray, slightly silty very fine SAND and seams layers and pockets of ML (substantial). ML is slightly clayey.			EW10-SC22-8-10	
10				soft contact @ 10.0'				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC22 continued
Date/Time: 3/8/2010, 1245
Core Logged By: McLee/Lee
Attempt #: 2
Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		0	2	98	ML: damp, stiff, olive gray, slightly clayey SILT and moderate seams and layers of SM				
11					DRAFT			EW10-SC22-10-12.9	
12		0	85	15	SM: damp, dense, dark gray, slightly silty very fine SAND				
					ML: damp, stiff, olive gray, slightly clayey SILT				
13					END OF CORE				
14									
15									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 3
Drive Length: 14'
Recovery: 11.9'
% Recovery: 85%
* Notes: Historic depth to native 11-15 feet

Station ID: EW10-SC28
Date/Time: 03/08/2010 - 1405
Core Logged By: McKee, Lee
Attempt #: 1 of 1
Type of Core: ☐ Mudmole ☒ Vibracore ☐ Diver Core
Diameter of Core (inches): 3.75"
Core Quality: ☒ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	10	90	ML: soft, moist, olive gray and black mottling, slightly fine to medium sandy grading to fine to medium sandy SILT		0		
	0	20	80					
	0	95	5	(FILL) SW: moist, loose, light gray, poorly sorted medium SAND, grains are brown, gray, green, white from vf to vc				
1	0	0	100	ML: moist, soft, medium stiff, black, slightly clayey SILT, homogeneous, blocky, rolls easily, smooth trace wood up to 3" long slight HC-like odor		0		
						2.3	EW10-SC28-~~1~~3 1-3	
2				DRAFT		0.6		
3						2.4		
						12		
4	0 ~~5~~	5	95	@3.8': grades to trace very fine sand and moderate organic content (rootlets up to 1/4" long)		8.0	EW10-SC28-3-5	
						50		
5								

* core expanded several inches when cut at 4' at core collection. Piece separated from core collected in foil labeled SC28-B2

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC28 cont.
Job No. 060003-01.17 Task 2	Date/Time: 03/08/2010 - 1405
No. of Sections:	Core Logged By: Mikee/Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above at 3.8'		4.5		
	0	90	10	@ 5.2': Slight metallic sheen, HC-like odor @ 5.3': grades to slightly sandy SILT very fine		2.6		
6						20	EW10-SC28-5-6.2	
				@ 6.2': 1.5" ϕ pocket of SP		0.5		
	0	0	100	ML: damp, stiff, olive gray, slightly clayey SILT, smooth and homogeneous			EW10-SC28-6.2-8	
7								
				DRAFT				
8								
	0	90	10	SM: damp, dense, dark gray, slightly silty SAND. sand is very fine and grains are multicolored (red, black, white, dark gray)		9.9	EW10-SC28-8-10	
				8.3' ML: damp, stiff, olive gray, slightly clayey SILT				(ignor full li
	(half-line)							
9	0	15	85	ML: texture becomes fissured with HC-like odor				
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC28 cont.
Job No. 060003-01.17 Task 2	Date/Time: 03/08/2010 - 1405
No. of Sections:	Core Logged By: McKee/Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 0	Diameter of Core (inches)
Notes:	Core Quality 0 ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					Same as above @ 8.9'				
		0	2	98	SPT: ML: damp, med-stiff, olive gray, slightly clayey SILT and moderate seams, pockets and layers of SP: damp, med-dense, dark gray, vf SAND		9.3	EW10-SC28-10-11.7	
		0	95	5	4"x2" ϕ piece of plastic @ 10.2'				
11							0		
					END OF CORE				
12									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC16
Job No. 060003-01.17 Task 2	Date/Time: 3/8/2010, 1530
No. of Sections: 2	Core Logged By: McKee, Lee
Drive Length: 13.2'	Attempt #: 1 of 1
Recovery: 9.10'	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 76%	Diameter of Core (inches) 3.75"
Notes: Historic depositional 3-11 feet	Core Quality ☐ Good ☐ Fair ☐ Poor ☒ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	10	90	ML: wet, soft, olive gray, slightly sandy SILT				
	0	5	95	ML: moist, soft, med. stiff, black, SILT. silt is smooth, homogeneous moderate H_2S odor			EW10-SC16-0-1.9	
1				@1.1': 1" diameter pocket of sandy SILT				
	0	80	20	ML: grades to occasional seams, pockets and layers of SM. grains of SM are black, white and gray, and red.		1.6		
2	0	90	10	SM: moist, med-dense, dark gray, slightly silty fine SAND with multi-color grains				
	0	2	98	ML: damp, med-stiff, olive gray and black mottling, slightly clayey SILT, smooth, homogeneous		1.3	EW10-SC16-1.9-4	
3				DRAFT				
4				ML: damp, med-stiff, brownish gray, slightly clayey SILT, smooth, homogeneous, rolls easily slight H_2S odor			EW10-SC16-4-6	
5				ML: grades to black and moderate pockets and seams of SM, multicolor grains f SAND				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC16 cont.
Job No. 060003-01.17 Task 2	Date/Time: 03/08/2010, 1530
No. of Sections:	Core Logged By: McKee/Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes: void 6.2'-7.1'	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5					same as above @ 4.9'			same as above EW10-SC16-4-6	
6									
					Null void space 6.2' to 7.1' (based on observation likely lost some SP)				
7									
		0	95	5	SP: damp, dense, dark gray, fine SAND and trace pockets of silt (ML)			EW10-SC16-6-8.2	
		0	2	98	ML: damp, med-stiff, black to olive gray, slightly vf sandy SILT and moderate seams of well-decomposed organics (rootlets and wood)				
8		0	90	10					
					@ 7.7' SM: damp, dense, dark gray, slightly silty very fine SAND and occasional layers of black and olive gray ML				
9					END OF CORE @ 8.2'				
10									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EWI0-SC36
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010,
No. of Sections: 3	Core Logged By: McKee, Lee
Drive Length: 14.0'	Attempt #: 1 of 1
Recovery: 12.6'	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 90%	Diameter of Core (inches) 3.75"
Notes: No historic depth determined to native.	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	5	95	ML: moist, soft, olive gray and black mottling, silt, trace vf-sand. Trace biota (worms) and broken shells		0	NO Sample	
	0	0	100	SW: moist, loose, , poorly sorted m-c-SAND. Grains are brown, green, beige, white, black. (CAP)			geotech @0.5'	CAP
1	0	90	10	SM: damp, medium dense, dk gray, slightly silty f-SAND. Trace wood fragments up to 1.5" ~~b~~. Sand grains are multicolored (red, black, white, black, grey). And moderate pockets of ML (same as below). Note: Same CAP sand on sidewalls in screen zone		0	EWI0-SC36 0.9-3	
2	0	5	95	ML: moist, stiff, olive gray with black mottling, slightly clayey SILT and moderate pockets of SM (as described above)			geotech @1.4'	
	0	90	10					
3	0	90	10	SM: damp, dense, dk. gray, slightly silty f-SAND. Sand grains are multi colored. Unit is homogeneous		0	EWI0 SC36 3-5	
4						0		
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC36 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010,
No. of Sections: 9	Core Logged By: McKee, Lee
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5	0	90	10	SAA @ 3.0'		0		
6						0	EW10-SC36 5-7 geotech @ 6.0'	
7	0	90	10	@6.9': grades to SM and occassional seams of ML				
	0	5	95			0	EW10-SC36 7-9	
8				@7.7': grades ~~to~~ moderate to pockets, layers and seams of ML				
				DRAFT				
9	0	70	30	~~ML~~ SM: damp, dense, dk gray; silty vf SAND and occassional pockets of SM up to 1/2"		0	EW10-SC36 9-11	
	0	90	10	pockets) ~~and ML up to 1/2~~ (slightly silty vf SAND)				
10	SM: 0	70	30	@9.9': grades to SM and seams and layers of ML				
	ML: 0	5	95	(olive gray, stiff, SILT)				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC36 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010,
No. of Sections: 9	Core Logged By: McKee, Lee
Drive Length:	Attempt #: 9
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10	0 0	70 5	30 95	SAA @ 9.9 feet		0	EW10-SC36-9-11	
11	0	95	5	SP: dense, damp, ~~olive~~ dk. gray, f SAND and trace seams of ML and occasional organics (pieces of wood up to 1/2" long)		0 0	EW10-SC36-11-12.1	
12				End of core at 12.1 feet				
13				DRAFT				
14								
15								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC34
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 1300
No. of Sections: 3	Core Logged By: McKee / Lee
Drive Length: 14.0'	Attempt #: 1 of 1
Recovery: 13.1'	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 94%	Diameter of Core (inches) 3.75"
Notes: No historic depth to native	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	60	40	CAP: SM: wet to moist, loose, dk gray, very silty m-SAND		0	No sample	
	0	0	100	ML: moist, medium stiff, black, SILT. SILT is smooth. Trace pockets up to 1/4"-⌀ of SM				
	0	70	30	(silty f sand). Sand grains are multicolored (red, beige, white, black, gray).			EW10-SC34 0.2-2.4	
1				Note: sand smear all along side walls of entire unit.		0		
				DRAFT				
2								
	0	95	5	diagonal contact from 2.2-2.4'. Solid @ 2.4'. SP: moist, medium dense to dense, dark gray, f-SAND. Sand grains are multicolored.		0	EW10-SC34-2.4-3.9	agglomerate
3	10	2	98	And ~~substantial~~ moderate seams and layers of ML (as above). @2.8': 2" ⌀ agglomerate (slag) Baggie sample			Baggie @ 2.8'	
				ML: damp, stiff, olive gray SILT and moderate pockets, seams and layers of SP (as described above).				
4	0	95	5	SP: damp, dense, dk gray f-SAND. Trace wood layers and scattered wood up to 1/4" L.			EW10-SC34 3.9-6	
	0	2	98	And occassional seams and layers of ~~SM~~ ML		0		
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC34 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 1300
No. of Sections:	Core Logged By: McKee / Lee
Drive Length:	Attempt #: 1 of 4
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 3.9 feet		0	EW10-SC34-3.9-6	
6				@6.3': grades to moderate seams + layers of ML		0		
7				@7.2': grades to substational layers + seams of ML		0	EW10-SC34-6-8	
				DRAFT				
				@7.7': seam of light gray ML				
8	0	90	10	@7.8': layer of SM: slightly silty vf SAND				
	0	5	95	ML: ~~moist~~ moist, soft, dk gray SILT, trace vf-sand.				
				SP: diagonal contact from 8.1 to 8.2.			EW10-SC34	
	0	95	5	SP: moist, dense, dk gray, f SAND.				
9	0	2	98	ML: ~~moist~~ damp, medium stiff, olive gray, slightly clayey SILT and moderate seams, layers, and interbeds of SP (as described above). Silt is smooth and slightly fissured.		0	8-10	
	0	95	5					
				@9.6': 3" interbed of SP				
10								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC34 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 1300
No. of Sections:	Core Logged By: McKee / Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		0	2	98	Same as above at 8.8ft.		0		
		(0	95	5)				EW10 SC34 10-12.3	
11							0		
12							0		
					@12.2' = 1" layer of SP @12.3' = 1/2" lay of SP				
					End of core @ 12.3 feet				
13									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC09
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010
No. of Sections: 3	Core Logged By: McKee/Lee
Drive Length: 14.0 ft	Attempt #: 1 of
Recovery: 13.1 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 96%	Diameter of Core (inches) 3.75"
Notes: Historic Native @ 0-3 ft.	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	10	90	ML: wet to moist, soft, olive gray grading to black, slightly m-sandy SILT. Sand is gritty (broken shells not sand?). Trace organics and biota (shells, broken), trace wood up to 1"-0, ~~wood~~ strong H_2S odor.		0		
						2.5	EW10-SC09-0-2	
						9.3		
1				@0.9': 3"-L wood.				
				@1.0'-1.2': 3.75"-0 agglomerate of asphalt, barnacles and shells fused together. (Baggie). ~~Moderate~~			Baggie @ 1.0-1.2'	
						7.8		
2	0	10	90					
				@2.3': 3.0"-0 agglomerate of asphalt and barnacles and shells. Strong H_2S odor.		16.8	EW10-SC09-2-4	
3						3.7		
4	0	10	90	@3.8': 2"-L wood fragments and fibers in a 1"-Layer		0.3		
				@4.1 - 1 piece of subangular gravel 1"-0. Grades to fissured texture		0	EW10-SC09 4-6	
5								

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Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC09 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010
No. of Sections: 9	Core Logged By: McKee, Lee
Drive Length:	Attempt #: 9
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				SAA @ 0.0' with fissured texture		0	EW10-SC09 4-6	
	0	20	80	@ 5.5': 1"- layer of wood and c-gravel up to 1.5"-Ø; wood up to 2"-L. Sand is both gritty (shells?) and f-gravied.				
6				@ 6.2': pocket of shell fragments ½"Ø		0	EW10 SC09 6-7.2	
7				@ 6.8': 1"- piece of glass, 4"-L piece of flexible plastic. Strong H_2S odor.				
	0	95	5	SP: damp, medium dense, dk gray, f-SAND. Sand grains are multicolored (red, black, white, gray, beige).			EW10 SC09 7.2-9.2	
8	0 0	95 5	5 95	SP: (same as above) and moderate seams and layers of ML (~~moist~~ damp, medium stiff, olive gray, SILT).		0		
9						0	EW10-SC09-9.2-11.2	
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC09 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010,
No. of Sections:	Core Logged By: McKee/Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10				SAA @ 7.8'		0	EW10-SC09-9.2-11.2	
11						0		
							EW10-SC09-11.2-12.5	
				@11.8 - grades to trace, orange, fresh wood fragments up to 1/2" - L		/		
12						0		
				End of core @ 12.5 ft.				
13				DRAFT				
14								
15								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC17
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 0955
No. of Sections: 3	Core Logged By: McKee/Lee
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 13.6 ft.	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 97%	Diameter of Core (inches) 3.75"
Notes: Historic native at 5-11 ft.	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	0	5	95	ML (a?): wet to moist, olive gray to black, soft, SILT. sand is vf. Trace organic matter.		0	EW10-SC17-0-2	
	0	2	98	@0.9': competancy changes to medium stiff Texture is smooth. Note: upon scooping sample, HC-like odor and some pooling.		11.7		
	0	2	98	@2.2': grades to ~~moist~~ damp black, medium stiff, slightly clayey SILT very smooth texture		17.2	EW10-SC17-2-4	
	0	2	98	@2.6': grades to moist, medium stiff SILT. Smooth homogeneous texture.		8.9		
				@3.2': 2" thick layer of fresh, orange wood up to 1"-L.		10.5		wood
	0	2	98	@3.4': grades to olive gray and black mottling		3.2		
	0	2	98	@4.3' grades to olive gray, SILT. Strong HC-like odor.		3.5	EW10-SC17 4-6	
						0.5		

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC17 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010 0955
No. of Sections: 2	Core Logged By: McKeel/Lee
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 0' and 4.3'.		0.5	EW10 SC17 4-6	
	0	2	98	~~@5.3': grades to dk. gray SILTe~~				
				SAA		8.8		
	0	5	95	@6.5': grades to dk gray, SILT. Texture grades to fissured and trace seams of olive gray clayey SILT (ML).			EW10 SC17 6-8	
				@7.0': 1/2"-L piece of fresh, yellow wood		20.8		wood
				@7.5': 1"-L bone & 1/2"-L wood fragment				wood + bone
				@7.7': grades to damp and blocky texture.				
				@8.0': grades to olive gray with black mottling slightly clayey SILT. Rolls easily. Trace organic fibers. Light metallic sheen.		3.2		
						1.5	EW10 SC17 8-10	
				DRAFT		0.8		
				SAA		0		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC17 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 0955
No. of Sections: 2	Core Logged By: McKee/Lee
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 8.0'				
				@ 10.2': grades to laminated bedding of black SILT and olive gray slightly clayey SILT. Fissured texture that increases toward basal contact.		0	EW10-SC17-10-11.5	
						0		
	0	60	40	SM: damp, dense, dark gray, very silty vf-SAND, trace pockets of ML. Sand grains are multicolored (red, white, black, beige, gray)		0	EW10-SC17-11.5-13	
	0	2	98					
	0	92	98	ML: diagonal contact from 11.9-12 ft: damp, stiff, dk olive gray SILT and substantial pockets and seams of vf-SM.				
	0	60	40			0		
	0	60	40	SM: damp, dense, dk. gray, very silty f-SAND.				
				End of core at 13.0'				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC14
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 0830
No. of Sections: 3	Core Logged By: McKee, Lee
Drive Length: 14.0'	Attempt #: 1 of 1
Recovery: 12.1'	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 95.8%	Diameter of Core (inches) 3.75"
Notes: in stone native = 2.8-6.0'	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	10	90	ML: wet to moist, soft to medium stiff, olive gray with black mottling, slightly f-sandy SILT		0		
	0	2	98	grading to SILT below 0.2 ft, black with olive gray mottling.			EW10-SC14-0-2.8	
1	30	0	70	@1.2' grades to gravelly SILT.		3	geotech @ 0.8'	
	40	30	30	GW: moist, loose, dk gray, silty, sandy Gravel. Gravel is c-f. (FILL) Gravel is up to 2.9" ø		3.3		
2	25	90	5	SW: moist, loose, dk gray, gravelly f-c-SAND. (FILL) grading to slightly gravelly f-c-SAND toward basal contact. Gravel is up to 2" ø		0	geotech @ 2.4'	
3	0	95	5	ML: damp, stiff, olive gray, SILT and moderate seams, pockets, and layers of damp, medium dense, dark gray, silty SAND. Sand is vf and grains are multicolored (red, beige, black, white, gray).			EW10-SC14-2.8-5.3	
	0	80	20					
4				@3-3.6': grades to black @3.6': grades to olive gray.		0		
	0	95	5	@4.5': 7"-L pocket of f-SAND (SP)				
5								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10 - SC14 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/9/2010, 0830
No. of Sections:	Core Logged By: McKee/Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above at 2.8 and 3.6 ft.		0		
	0	95	5	SP: damp, dense, dk. gray, f-SAND (grains are multicolored).			EW10-SC14-5.3-7.3	
6								
	0	5	95	@ 6.4': SP and moderate seams and layers of ML. ML is olive gray, smooth, homogeneous		0		
7								
							geotech@7.5' EW10-SC14-7.3-9.3	
8								
	0	5	95	ML: damp, ~~dense~~ stiff, olive gray, SILT and moderate layers and seams of SM (fine sand)		0		
	0	70	30					
9								
							EW10-SC14-9.3-11.5	
0								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.
Job No. 060003-01.17 Task 2
No. of Sections: 2
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: EW10-SC14 continued
Date/Time: ~~3/8~~ 3/9/2010, 0830
Core Logged By: McKee/Lee
Attempt #: 2
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
Diameter of Core (inches)
Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					Same as above @ 8.3' grades to dry and blocky texture		0	EW10-SC14-8.3-11.5	
11							0		
12					End of core at 11.5 ft.				
13									
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC49
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1510
No. of Sections: 3	Core Logged By: McKee/Lee
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 13.8 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 99%	Diameter of Core (inches) 3.75"
Notes: Native expected at 0-7 ft historic	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
		0	5	95	ML: moist, soft, olive gray, SILT, Trace biota (barnacle on a rock). And trace pockets of SM:		0	EW10-SC49 0-1.6	
		0	80	20	moist, medium dense, olive gray silty, f-SAND. Sand grains are multicolored (red, white, gray, black).				
1			2	98	@0.3': grades to ML. smooth and homogenous And trace pockets of SM as above. Color grades to dk gray and olive gray mottling.		0		
					@1.2': 1 piece of wood 1/2"-L.				
					@1.5': 1 piece of 1/4" θ-gravel				
		SM: 0	90	10	SM: moist, dense, dk gray, slightly silty f SAND				
2		ML: 0	2	98	Grains are multicolored and ~~subsite~~ moderate		0	EW10-SC49 1.6-4.0	
			~~80~~	~~20~~	pockets of ML (as above)				
		ML: 0	82	98	ML: moist, medium stiff, olive gray SILT and				
		SM: 0	90	10	moderate pockets of SM (same as above). Trace wood up to 1/2"-L.				
		0	20	80	@2.4': grades to dark gray, stiff, damp, ML: vf-sandy SILT and trace pockets of SM (as above).				
3							0		
		0	95	5	SP: damp, dense, dk. gray SP.				
4		0	40	60	ML: damp, stiff, dk. gray, very vf-sandy SILT.				
							0	EW10-SC49-4-6	
5									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC49 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1510
No. of Sections: 9	Core Logged By: McKee / Lee
Drive Length:	Attempt #: 9
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5	0	40	60	SAA @ 3.8ft.		0	EW10-SC49-4-6	
	ML: 0 / SM: 0	40 / 70	60 / 30	@5.6 ft: grades to ML and substantial seams, pockets, and layers of SM. (vf-sand).		0		
6						0	EW10-SC49 6-8	
7				@7.2': grades to ML and substantial seams, pockets, and layers of SP.		0		
8	0	2	98	ML: damp, stiff, dk gray, slightly clayey SILT. Silt is blocky and smooth.		0	EW10-SC49 8-10	
9				DRAFT		0		
0								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC49 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1510
No. of Sections: 2	Core Logged By: McKee/Lee
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10	0	2	98	SAA @ 8.1 ft		0	EW10-SC49-10-12	
				@ 10.6': texture grades to smooth (not blocky)		0		
				@10.9': 3"-L piece of decomposed wood				
11	0	90	10	SM: moist to damp, dense, dk gray, slightly silty f-SAND				
	0	2	98	and occassional layers and seams of ML.		0		
12	0	2	98	ML: damp, stiff, ~~dk gray and light gray~~ olive gray, slightly clayey SILT		0	EW10-SC49-12-13.1	
	0	85	15	SM: damp, dense, dk gray, slightly silty f-SAND and trace seams of ML (same as above).		0		
13				End of core at 13.1 feet				
14								
15								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC44
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1300
No. of Sections: 3	Core Logged By: McKee, Lee, Marshalonis
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 14.2 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 100+%	Diameter of Core (inches) 3.75"
Notes: Historic native 0-6 feet	Core Quality ☒ Good ☒ Fair ☐ Poor ☐ Disturbed (good to fair quality)

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	0	95	5	SP: damp, dense, dark gray, very fine SAND and trace 1" pockets of ML ~~(soft~~ (stiff, damp, olive gray SILT) and a seam of fine SAND (SP) surrounding the pocket of ML. Trace wood up to 1" long, trace biota. Sand grains are multi-colored (red, dk gray, beige, white)		0	EW10-SC44-0-2	
	0	5	95					
				@0.6' grades to SP and moderate seams of ML				
				@1.0' grades to SP and substantial seams of ML		0		
				@1.9' seam of decomposed wood debris up to 1/4" long				
	0	95	5	SP: grades to SP @2.4'		0	EW10-SC44-2-4	
	0	95	5	@3.0' grades to SP and moderate layers of ML				
	0	95	5	@3.3' grades to SP and moderate layers and seams of ML and SM (fining upwards ML-SM-SP) ~~and~~		0		
	0	60	40					
				@4.2 broken shell fragment 1/4" ϕ		0	EW10-SC44-4-6	

DRAFT

* 0.75' of void space at top of core (above mudline) diagonal with 2/3 no material and 1/3 material

Page 1 of 3

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC44 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1300
No. of Sections:	Core Logged By: McLee, Lee, Marshalonis
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5				Same as above @ 3.3'		0	Same as above EW10-SC44-4-6	
6	0	40	60	ML ~~SM~~: moist, stiff, olive gray, very fine sandy SILT and moderate seams and layers of SP and SM		0	EW10-SC44-6-8	
7						0		
8				@ 8.7' grades to substantial seams and layers of SP and SM		0	EW10-SC44-8-10	
9						0		
10								

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC44 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1300
No. of Sections: 2	Core Logged By: McKee, Lee, Marshalonis
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☑ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10					same as above @ 8.7'		0	EW10-SC44-10-12	
11		0	95	5	SP: ~~moist~~ damp, dense, dark gray, fine SAND				
		0	10	90	ML: damp, stiff, dark gray, slightly very fine sandy SILT slightly clayey		0		
12		0	80	20	SM: damp, dense, dark gray, silty very fine SAND and occasional seams of ML (as above)			EW10-SC44-12-13.2	
		0	15	85	ML: damp, stiff, dark gray, slightly very fine sandy slightly clayey SILT and trace 1/2" pocket of SM (as above)		0		
13					END OF CORE 13.2'				
14					DRAFT				

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC39
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 0825
No. of Sections: 3	Core Logged By: McKee, Lee, Marshalonis
Drive Length: 14.0'	Attempt #: 1 of 1
Recovery: 13.3'	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 95%	Diameter of Core (inches) 3.75"
Notes: No historic depth to native	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	5	95	ML: moist, soft, olive gray with black mottling, SILT and occassional pockets of silty f-SAND (SM).		0		
	0	60	40	Trace biota (worm) and wood fragments up to 1/4" L			EW10-SC39-0-2	
1	0	60	40	SM: moist, medium dense, dark gray, silty f-SAND and occassional seams and layers of ML (soft, olive gray, SILT). Trace shell fragments up to 1/4"-Ø.		0		
2				DRAFT			EW10-SC39-2-3.4	
3	SM: 60 / SP: 95 / ML: 5	40 / 5 / 95		SM: moist, medium dense, dk gray, silty f-SAND and moderate pockets of SP and layers and seams of ML. SP is fine and grains are multicolored (red, black, white, dk gray, beige).		0	EW10 SC39 3.4-5.4	
	0	5	95	(@3.8) ML: moist, medium stiff, olive gray with black mottling, SILT and moderate pockets of SM		0		
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC39 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 0825
No. of Sections: 2	Core Logged By: McKee, Lee, Marshalonis
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Depth	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		0	5	95	SAA @ 3.8'		0	EW10-SC39-3.4-5.4	
		0	95	5	SP: damp, dense, dark gray, f-S SAND and				
		0	2	98	moderate seams, layers of ML (olive gray, SILT)				
6								EW10-SC39-5.4-8	
					DRAFT				
7							0		
		0	95	5	SP: damp, dense, dk gray, f SAND.				
8		SM: 0	85	15	SM: damp to moist (by wood layer), medium dense dk gray, slightly silty f-SAND and moderate layers				
		ML: 0	2	98	and interbeds of ML and SP. Occassional			EW10-SC39	
		SP: 0	95	5	wood up to 1/4"-L in SP layers/interbeds.				
					Note: generally fining upward sequences of ML-SM-SP.		0	8-10	
9									
0									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EWW-SC39 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/18/2010, 0825
No. of Sections: 0	Core Logged By: McLee, Lee, Morshalonis
Drive Length:	Attempt #: 0
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 8.0 feet		0		
	0	90	10	ML: damp, stiff, olive gray, slightly f- sandy, slightly clayey SILT and moderate pockets and seams of SM, Silt rolls easily.		0	EWW-SC39-10-12.8	
				@ 11.8': grades to occassional seams of slightly clayey silt		0		
				End of core at 12.8 feet				

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC40
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 0940
No. of Sections: 3	Core Logged By: McGee, Lee, Marshelonis
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 13.3 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 95%	Diameter of Core (inches) 3.75"
Notes: ✓ Native expected @ 1-2 ft bgsmw	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	5	95	ML: moist, soft, black and olive gray mottled, SILT. Trace biota (worm).			EW10-SC40 0-1	
	0	2	98	@0.4': grades to a moist, soft, olive gray SILT		0		
	0	60	40	and ~~moderate~~ occassional pockets and seams of SM (silty f. sand)				
	0	0	100	and occassional pockets of light gray smooth, SILT (ML)		1.7		
1				@1.0': grades to medium stiff, pockets grade to (SM) moderate. Sand is multicolored (red, black, white, gray, beige). Color grades to a deeper olive gray. Pockets are up to 1/4"-Ø			EW10-SC40 1-4	
2				@2.0' grades to deeper gray → dk. gray. Trace shell fragments		0.2		
3				DRAFT		0		
				@3.5': grades to substantial pockets of SM up to 1/4"-Ø				
4	0	95	5	Diagonal contact from 3.8 to 4.0 ft. SP: damp, dense, dk gray, f to vf layers of SP (alternating)		0	EW10-SC40-4-6.8	
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC40 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 0940
No. of Sections: 3	Core Logged By: McKee, Lee, Marshalonis
Drive Length:	Attempt #: 1 of 1
Recovery:	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches) 3.75"
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5	0	95	5	SAA @ 4.0 ft.		0	EW10-SC40-4-6.8	
6						0		
7	ML: 0 SM: 0 ML: 0	45 60 0	55 40 100	ML: damp, stiff, crumbly, dk. gray very vf-sandy, SILT and moderate layers of seams and pockets of SM, Nace seams of olive gray ML. Pockets are up to 1/2"			EW10-SC40-6.8-8.0	
8				DRAFT		0	EW10-SC40-8-10	
1	ML: 0 SM: 0	45 60	55 40	@ 8.5': grades to ML and moderate seams of olive gray ML and occassional seams and pockets of vf-SM. Pockets are up to 1/2"				
10	ML: 0 SM: 0	45 60	55 40	@ 9.6': grades to ML and substantial layers and interbeds of dk gray vf-SM. Interbeds are up to 3"-thick.		0		

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC40 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 0940
No. of Sections: 9	Core Logged By: McKee, Lee, Marshalonis
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		ML: 0 SM: 0	45 60	55 40	SAA @ ~~8.5~~ 9.6 ft.		0	EW10-SC40-10-12.9	
11							0		
12		0	2	98	ML: ~~damp~~ dry, stiff, blocky textured ML and occassional seams and pockets of SM. Pockets are up to 1/2"-0				
13					End of core at 12.9 ft.				
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC42
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1045
No. of Sections: 3	Core Logged By: McKee, Lee, Marshalonis
Drive Length: 14.0 ft	Attempt #: 1 of 1
Recovery: 13.8 ft	Type of Core ☐ Mudmole ☑ Vibracore ☐ Diver Core
% Recovery: 98%	Diameter of Core (inches) 3.75"
Notes: native expected at 0-4 ft interval	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	5	95	ML: MOIST SOFT DARK GREY w/ OLIVE GREY MOTTLING SILT AND TRACE SHELL FRAGMENTS 0.25in ø AND ORGANIC MATTER (WOOD FRAGMENTS UP TO 2in-L AND HAIRS), MODERATE H_2S ODOR. Strong H_2S upon mixing.		0	EW10-SC42-0-2	shells, wood
1	0	5	95	@1.3 GRADES TO OLIVE GREY ML w/ ~~DARK GREY~~ BLACK MOTTLING		10.8		
2	0	60	40	@1.8 GRADES TO ML AND TRACE POCKETS OF SM AND TRACE 0.5in ø POCKETS OF LIGHT GREY ML.		8.4		
						13		
						2.9	EW10-SC42-2-4	
3				DRAFT				
						1		
4							EW10-SC42-4-5.5	
	0	60	40	@4.6 GRADES TO ML AND OCCASIONAL* POCKETS OF SM. up to 1/2" ø		0		
5								

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC42 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1045
No. of Sections:	Core Logged By: McCoe, Lee, Marshalonis
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
5		0	60	40	SAME AS ABOVE @ 4.6		0	EW10-SC42-4-4.5	
		0	10	90	SM: MOIST DENSE DARK GREY SLIGHTLY SILTY FINE SAND. GRAINS ARE MULTICOLORED (RED, WHITE, DARK GREY, BEIGE).		X-X		
6							0	EW10-SC42-5.5-8	
							0		
					DIAGONAL CONTACT FROM 6.9 TO 7.1				
7		0	5	95	ML: MOIST MEDIUM STIFF TO SOFT OLIVE GREY W/ BLACK MOTTLING SILT AND TRACE POCKETS OF SM. up to 1/2"-Ø		X-X		
							0		
					DIAGONAL CONTACT FROM 7.8 TO 8.1				
8		~~0~~	~~85~~	~~15~~	SM: MOIST DENSE DARK GREY SLIGHTLY SILTY FINE SAND AND OCCASIONAL POCKETS OF SP - up to 1/2" Ø		X-X		
		0	85	15					
		0	95	5			0		
					DRAFT			EW10-SC42-8-10	
9		0	85	15	@9.0 GRADES TO SM W/ OCCASIONAL SEAMS LAYERS AND POCKETS OF OLIVE GREY ML. up to 1"-Ø				
		0	5	95			0		
10									

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC42 continued
Job No. 060003-01.17 Task 2	Date/Time: 3/10/2010, 1045
No. of Sections: 2	Core Logged By: LMcKee, Lee, Marshalonis
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

	Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
10		0 0	85 5	15 95	SAME AS ABOVE @ 9.0		0	EW10-SC42-10-12.4	
11		0	95	5	SP; MOIST DENSE DARK GRAY FINE SAND AND TRACE WOOD FRAGMENTS UP TO 0.25in-L, SAND GRAINS ARE MULTI COLORED.		~~0~~		
12							0		
					END OF CORE 12.4 feet				
13									
14									
15									

DRAFT

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC47
Job No. 060003-01.17 Task 2	Date/Time: 03/10/2010, 1415
No. of Sections: 3	Core Logged By: McKee, Lee
Drive Length: 14'	Attempt #: 1 of 1
Recovery: 11.8'	Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
% Recovery: 84%	Diameter of Core (inches) 3.75"
Notes: Historic depth to native 0-5 ft	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	0	10	90	ML: moist, soft, olive gray with dark gray mottling, slightly f-sandy SILT, occassional organic matter (roots) up to 5"-L. Trace pockets up to 1/2"-Ø of SM (moist, medium dense, dark gray, ~~slightly~~ silty f-SAND). Sand grains are fine and multicolored (red, white, beige, black, gray).		0		
	0	80	20			1.3	EW10-SC47-0-2	
1	0	2	98	@1.2': ML grades to soft, smooth SILT, olive gray				
2						11.6		
						2.6		
	SM: 0	80	20	@2.6': ML grades to ML and layers of SM with occassional decomposed wood in the SM up to 1"-L				
	ML: 0	20	80					
3				DRAFT		0	EW10-SC47-2-3.6	
	0	95	5	SP: moist, medium dense, dk gray, f-SAND. ~~Trace~~ occassional broken shells up to 1/2"-Ø. And occassional pockets of ML up to 1"-Ø. Shells are in the SP.				
4	ML: 0	5	95	ML is ~~soft~~ moist, olive gray, medium-stiff, SILT		0	EW10-SC47 3.6-6	

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC47 continued
Job No. 060003-01.17 Task 2	Date/Time: 03/10/2010, 1415
No. of Sections:	Core Logged By: McKee, Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
				SAA @ 3.6 ft				
	0	95	5	@5.1': grades to SP (same as above) and substantial		0	EW10-SC47-3.6-6	
	0	5	95	pockets, layers, of ML. Pockets are up to 1/2"-0 ML is same as above.				
						0	EW10-SC47-6-8	
	0	30	70	ML: moist, stiff, olive gray, very f-sandy, SILT, and trace 1/4"-0 pockets of SP at basal contact.				
	SP: 0	95	5	SP: damp, dense, dark gray, f-SAND. Moderate broken shell fragments up to 1"-0 And trace		0		
	ML: 0	5	95	layers, seams, and pockets of ML: ~~(same as above)~~ (moist, soft, olive gray SILT).			EW10-SC47 8-10	
				DRAFT		0		
	SP: 0	95	5	@9.0': grades to SP and trace shell fragments up to 1/4"-0.				
	SP: 0	95	5	@9.7': grades to SP and moderate to substantial pockets up to 1"-0		0		
	ML: 0	5	95	of ML (same as above). Trace broken shells to 1/4"-0				ML pockets

Sediment Core Processing Log

ANCHOR QEA

Job: East Waterway - Subsurface Inv.	Station ID: EW10-SC47 continued
Job No. 060003-01.17 Task 2	Date/Time: 03/10/2010, 1415
No. of Sections:	Core Logged By: McKee, Lee
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core
% Recovery: 0	Diameter of Core (inches)
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Size % G	Size % S	Size % F	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
	SP: 0 ML: 0	95 5	5 95	SAA @ 9.7 feet		0 0	EW10-SC47-10-11.1	* classic pockets of ML in this section *
				End of core at 11.1 feet				

DRAFT

APPENDIX G

Chain-of-Custody Forms

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3507

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name:
Sampled By: AMEC/Geomatrix, David Gillingham

Ship to:
Attn:
Shipper:
Form filled out by: Berit Bergquist

Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
2/22/10	1040	EW10-SC08	1 core									
2/22/10	1200	EW10-SC06	1 core									
2/22/10	1400	EW10-SC03	1 core									
2/22/10	1500	EW10-SC04	1 core									
		Total Number of Containers	4	Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: David Gillingham	Print name: Berit Bergquist	Print name:	
Signature:	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 2/22/10 1800	Date/Time: 2/22/10 1805	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3509

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name:
Sampled By: AMEC/Geomatrix, David Gillingham

Ship to:
Attn:
Shipper:
Form filled out by: Bert Bergquist

Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
2/23/10	0840	EW10-SC07	1 core									
2/23/10	1000	EW10-SC11	1 core									
2/23/10	1200	EW10-SC05	1 core									
~~2/23/10~~												
		Total Number of Containers	3	Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Bert Bergquist	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: David Gillingham	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 2/23/10 1630	Date/Time: 2/23/10 1630	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3510

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name:
Sampled By:

Ship to:
Attn:
Shipper:
Form filled out by: Berit Bergquist
Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
2/24/10	0940	EW10-SC35										
2/24/10	1035	EW10-SC38										
2/24/10	1153	EW10-SC41										
2/24/10	1308	EW10-SC45										
2/24/10	1428	EW10-SC19										
2/24/10	1539	EW10-SC20										
2/24/10	1516	EW10-SC21										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Berit Berg	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: David Gillingham	Company:	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 2/24/10 1730	Date/Time: 2/24/10 1730	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3508

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name:
Sampled By:

Ship to:
Attn:
Shipper:
Form filled out by: Benit Bergquist

Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
2/25/10	855	EW10-SC37	1 core									
2/25/10	0945	EW10-SC43	1 core									
2/25/10	1055	EW10-SC46	1 core									
2/25/10	1220	EW10-SC55	1 core									
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Sarah Fowler	Print name: Benit Bergquist	Print name:	
Signature:	Company: Windward	Signature:	Company:
Company: Windward ENV		Company:	
Date/Time: 2-25-10 1606	Date/Time: 2/25/10 1610	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

or

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3501

Project/Client Name: East Waterway Subsurface Sediment
Project Number:
Contact Name: David Gillingham
Sampled By: NS, SF, DG, DD,

Ship to:
Attn:
Shipping Date:
Shipper:
Airbill Number:
Form filled out by:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
2-26-10	0855	EW10-SC10	1 core									
	0945	EW10-SC12	1 core									
	1030	EW10-SC15	1 core									
	1215	EW10-SC07B	1 core									
	1250	EW10-SC18	1 core									
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Brit Brit	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: [signature]	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 2/26/10 1500	Date/Time: 2/26/10 1500	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3511

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: DG, SF, JD

Ship to:
Attn:
Shipping Date:
Shipper:
Airbill Number:
Form filled out by:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
3/1/10	855	EW10-SC58	1 core									
	955	EW10-SC59	1 core									
	1034	EW10-SC57	1 core									
	1115	EW10-SC60	1 core									
	1215	EW10-SC61	1 core									
	1300	EW10-SC63	1 core									
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: Leslie McKee	1) Rec'd by: [illegible]	2) Released by:	2) Rec'd by:
Print name: Leslie McKee		Print name:	
Signature: Leslie McKee	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/1/2010, 1500	Date/Time: 3/1/10 1500	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3512

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: DG, RB, JD

Ship to:
Attn:
Shipper:
Form filled out by:
Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
3/2/10	0840	EW10 - SC23										
	0935	EW10 - SC27										
	1025	EW10 - SC30										
	1220	EW10 - SC29										
	1110	EW10 - SC33										
	1315	EW10 - SC32										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: David Gillingham	Print name: Bob Bonir	Print name:	
Signature: David Gillingham	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/2/10 1525	Date/Time: 3/2/10 1525	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
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1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3514

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: DG, RB, DP

Ship to:
Attn:
Shipping Date:
Shipper:
Airbill Number:
Form filled out by:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
3/3/10	0850	EW10-SC51	1 core									
	0945	SC101										
	1015	SC100										
	1052	SC26										
	1200	SC13										
		Total Number of Containers	5	Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Brian Bonner	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: [signature]	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/3/10 1400	Date/Time: 3/3/10 1400	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3513

Project/Client Name: EW Subsurface Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: DG, RB, DP

Ship to:
Attn:
Shipping Date:
Shipper:
Airbill Number:
Form filled out by:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
3/4/10	1006	EW10-SC50	1 core	Sediment								
3/4/10	0926	EW10-SC52	↓	↓								
3/4/10	1043	EW10-SC53										
3/4/10	0845	EW10-SC54										
3/4/10	1126	EW10-SC48										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: David Gillingham	Company:	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/4/10 1450	Date/Time:	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3515

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: David Gillingham, Rickberg, Delaney Peterson

Ship to:
Attn:
Shipper:
Form filled out by:
Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
3/5/10	1136	EW10-SC31	1 core	sediment								
	0900	EW10-SC24										
	0936	EW10-SC25										
	1015	EW10-SC22										
	1055	EW10-SC28										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Brit Boyer	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: David Gillingham	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/5/10 1350	Date/Time: 3/5/10 1350	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3516

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: DG, MY

Ship to:
Attn:
Shipper:
Form filled out by:
Shipping Date:
Airbill Number:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
3/8/10	0850	EW10-SC16	1 core	sediment								
	0945	EW10-SC14										
	1030	EW10-SC17										
	1135	EW10-SC9										
	1250	EW10-SC34										
	1330	EW10-SC36										
	1350	EW10-SC39										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Bruce Bryan	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature: [signature]	Company: Windward	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/8/10 1535	Date/Time: 3/8/10 1535	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3517

Project/Client Name: EW Subsurface Sediment Sampling
Project Number:
Contact Name: David Gillingham
Sampled By: DG, MY

Ship to:
Attn:
Shipping Date:
Shipper:
Airbill Number:
Form filled out by:
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (Jar tag number(s))
3/9/10	1310	EW10-SC56	1 core	Sediment								
	1230	EW10-SC49										
	1115	EW10-SC47										
	0925	EW10-SC42										
	1035	EW10-SC44										
	0845	EW10-SC40										
	1350	EW10-SC62										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: David Gillingham	1) Rec'd by: Benit Bergquist	2) Released by:	2) Rec'd by:
Print name: David Gillingham		Print name:	
Signature:	Company:	Signature:	Company:
Company: Anchor QEA		Company:	
Date/Time: 3/9/10 1550	Date/Time: 3/9/10 1550	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

Chain of Custody Record & Laboratory Analysis Request

COC# 3/22/10

ANCHOR QEA

Date: 3/22/10
Laboratory Number:
Project Name: East Waterway Subsurface Investigation
Project Number: 060003-01
Project Manager: Dan Berlin
Phone Number: 206-409-7268
Shipment Method:

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	PCBs (Aroclors)	Organochlorine pesticides	SVOC, SVOC (SIM)	Bulk TBT	Metals	TOC/TS	Dioxin/ Furans	GS[2]	Bulk Density	AL[2]	SG[2]	~~Cation~~/ Consolidation	Archive	CUTTINGS							Comments
				Sediment																					
1	EW10-SB02-16-18	3/22/10 946	SE	5													X								Freeze 3/22/10
2	EW10-SB02-12-14	1051		4	X		X		X	X		X	X	X	X	X	X								~~Refrigerate~~ all
3	EW10-SB02-4-6	1225		4	X		X		X	X		X	X	X	X		X	X							except "Archive-D/F"
4	EW10-SB01-16-18	1500		5	X		X		X	X		X					X								freeze
5	EW10-SB01-12.5-14.5	1601		4	X		X		X	X		X	X	X	X		X	X							
6	EW10-SB02-17-19	1659		5													X								
7																									
8																									
9																									
10																									
11																									
12																									

1 See Work Order tables for analyte lists, test methods, and detection limits

2 AL = Atterburg Limits, MC= Moisture Content, GS= Grainsize, SG= Specific Gravity

3 TPH-Dx analysis to be performed with silica-gel cleanup methodology

Additional notes/comments:

Relinquished By:	Company: Anchor QEA LLC.	Received By:	Company: ARI
Amy Olson	3/22/10 1728	Jami Peterson	3/22/10 1728
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

00028:00003

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: E. Waterway Subsurface Investigation

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: QP28

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 11.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: JP Date: 3/22/10 Time: 1728

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA	_____	

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

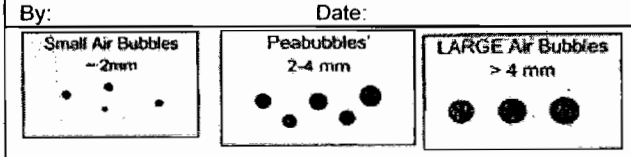
Samples Logged by: MM Date: 3/23/10 Time: 0910

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Chain of Custody Record & Laboratory Analysis Request

COC# 3/23/10

ANCHOR QEA

Date: 3/23/10
Laboratory Number:
Project Name: East Waterway Subsurface Investigation
Project Number: 060003-01
Project Manager: Dan Berlin
Phone Number: 206-409-7268
Shipment Method:

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	PCBs (Aroclors)	Organochlorine pesticides	SVOC, SVOC (SIM)	Bulk TBT	Metals	TOC/TS	Dioxin/ Furans	GS[2]	Bulk Density	AL[2]	SG[2]	~~CoTrax~~/ Consolidation	Archive	CuTrax							Comments
					Sediment																				
1	EW10-SB02-0-2	3/23/10 908	SE	5	X		X		X	X		X	X	X	X	X	X								
2	EW10-SB02-20.5-22.5	1010		5	X		X		X	X		X	X				X								Archive all
3	EW10-SB01-0-2	1121		5	X		X		X	X		X		X	X		X	X							
4	EW10-SB01-3.5-5.2	1333		3	X		X		X	X		X													
5	EW10-SB02-44.5-46.5	1620		4													X								
6	EW10-SB52-44.5-46.5	1621		4													X								
7																									
8																									
9																									
10																									
11																									
12																									

1 See Work Order tables for analyte lists, test methods, and detection limits

2 AL = Atterburg Limits, MC= Moisture Content, GS= Grainsize, SG= Specific Gravity

3 TPH-Dx analysis to be performed with silica-gel cleanup methodology

Additional notes/comments: Archive all excess material after tests are complete

Relinquished By:	Company: Anchor QEA LLC.	Received By:	Company: ARI
Amy Olson	3/23/10 1530	A. Volgamdsen	3/23/10 1530
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

00028 : 00005

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.