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August 25, 2011

Mr. Kenneth Bardo - LU-9J
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Corrective Action Section
77 West Jackson Boulevard
Chicago, IL 60604-3507

VIA FEDEX

Re: Long-Term Monitoring Program
2nd Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the Long-Term Monitoring Program 2nd Quarter 2011 Data Report for Solutia Inc.'s W. G. Krummrich Plant, Sauget, IL.

If you have any questions or comments regarding this report, please contact me at (314) 674-3312 or gmrina@solutia.com

Sincerely,

A handwritten signature in blue ink, appearing to read "Gerald M. Rinaldi".

Gerald M. Rinaldi
Manager, Remediation Services

Enclosure

cc: Distribution List

DISTRIBUTION LIST

**Long-Term Monitoring Program
2nd Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL**

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**SECOND QUARTER 2011
DATA REPORT
LONG-TERM MONITORING PROGRAM
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS**

Prepared for:

SOLUTIA INC.
St. Louis, Missouri

Prepared by:

GEOTECHNOLOGY, INC.
St. Louis, Missouri

Geotechnology, Inc. Report No. J017210.14

August 26, 2011



SECOND QUARTER 2011
DATA REPORT
LONG-TERM MONITORING PROGRAM
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

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SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

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SECOND QUARTER 2011
DATA REPORT
LONG-TERM MONITORING PROGRAM
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

1.0 INTRODUCTION

This report presents the results of the 2nd Quarter 2011 (2Q11) sampling event performed at the Solutia Inc. (Solutia) W.G. Krummrich (WGK) Facility located in Sauget, Illinois (Site). This sampling event was conducted in accordance with the Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009). The Site location is presented in Figure 1.

The LTMP was designed to evaluate the effectiveness of monitored natural attenuation (MNA), including: 1) a clear and meaningful trend of decreasing contaminant mass; 2) data that indirectly demonstrate the types and rates of natural attenuation processes active at the site; and 3) data that directly demonstrate the occurrence of biodegradation processes at the site.

Groundwater Sampling Location and Frequency. As specified in the Revised LTMP Work Plan, groundwater samples will be collected from five monitoring wells downgradient of the Former Chlorobenzene Process Area (CPA-MW-1D through CPA-MW-5D) and five monitoring wells downgradient of the Former Benzene Storage Area (BSA-MW-1S and BSA-MW-2D through BSA-MW-5D) to assess attenuation processes in the American Bottoms aquifer, as impacted groundwater from these source areas migrates toward and discharges to the Mississippi River.

Monitoring Wells BSA-MW-1S, 2D, 3D, 4D and 5D are located within the limiting flow lines downgradient of the Former Benzene Storage Area. Monitoring Wells CPA-MW-1D, 2D, 3D, 4D and 5D are located within the limiting flow lines downgradient of the Former Chlorobenzene Process Area. Source areas and monitoring well locations are presented in Figure 2.

Quarterly sampling under the Long-Term Monitoring Program commenced 3Q08 and a total of 12 quarters have been completed as of 2Q11.

Groundwater Sampling Parameters. During the 2Q11 groundwater sampling event, groundwater samples were analyzed for benzene, monochlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene using USEPA Method 8260B.



MNA samples were collected from all ten long-term monitoring program wells. Evaluation of the types of active natural attenuation processes at the site is based on the following key geochemical parameters:

- Electron Donors: Organic Carbon (Total and Dissolved)
- Electron Acceptors: Iron (Total and Dissolved)
Manganese (Total and Dissolved)
Nitrate
Sulfate
- Biodegradation Byproducts: Carbon Dioxide
Chloride
Methane
- Biodegradation Indicators: Alkalinity

Direct demonstration of the occurrence of biodegradation processes is completed quarterly utilizing Microbial Insights (www.microbe.com) Bio-Trap[®] Samplers for Phospholipid Fatty Acid (PLFA) Analysis, along with Stable Isotope Probes (SIPs) for benzene or chlorobenzene in select wells.

2.0 FIELD PROCEDURES

Geotechnology, Inc. (Geotechnology) conducted the majority of 2Q11 field activities from May 17 through May 23, 2011. Activities were completed in accordance with procedures outlined in the Revised LTMP Work Plan, including the collection of appropriate quality assurance and quality control (QA/QC) samples. The following section summarizes field investigative procedures:

Groundwater Level Measurements. Geotechnology personnel used an electronic oil/water interface probe to measure depth to static groundwater levels and if present, the thickness of non-aqueous phase liquid (NAPL), to 0.01 feet. Depth to groundwater measurements were collected from accessible existing wells (i.e., GM-, K-, PSMW- and PMA-series) and piezometers clusters (installed for the Sauget Area 2 RI/FS and WGK CA-750 Environmental Indicator projects) specified in the Revised LTMP Work Plan (Figure 3). NAPL was not detected within any of the ten LTMP monitoring wells.



Well gauging information for the 2Q11 event is presented in Table 1. As the middle and deep hydrogeologic units are the primary migration pathway for constituents present in groundwater at the WGK Facility, a groundwater potentiometric surface map based on water level data from wells screened in the Middle Hydrogeologic Unit (MHU) and Deep Hydrogeologic Unit (DHU) is presented as Figure 3.

Groundwater Sampling. Low-flow sampling techniques were used for groundwater sample collection. At each monitoring well, disposable, low-density polyethylene tubing was attached to a submersible pump, which was then lowered into the well to the middle of the screened interval. Monitoring wells were purged at a rate of 227 to 324 mL/minute to minimize drawdown. If significant drawdown occurred, flow rates were reduced.

Drawdown was measured periodically throughout purging to ensure that it did not exceed 25% of the distance between the pump intake and the top of the screen. Once the flow rate and drawdown were stable, field measurements were collected approximately every three to ten minutes. Purging of a well was considered complete when the following water quality parameters remained stable over three consecutive flow-through cell volumes:

Parameter	Stabilization Guidelines
Dissolved Oxygen (DO)	+/- 10% or +/-0.2 mg/L, whichever is greatest
Oxidation-Reduction Potential (ORP)	+/- 20 mV
pH	+/- 0.2 units
Specific Conductivity	+/- 3%

Sampling commenced upon completion of purging. Prior to sample collection, the flow-through cell was bypassed to allow for collection of uncompromised groundwater. Samples were collected at a flow rate less than or equal to the rate at which stabilization was achieved. Sample containers were filled based on laboratory analysis to be performed, in the following order:

- Volatile Organic Compounds (VOCs)
- Semi Volatile Organic Compounds (SVOCs)
- Gas Sensitive Parameters (e.g., methane, carbon dioxide)
- General Chemistry (i.e., alkalinity, chloride, total and dissolved iron, total and dissolved manganese, nitrate, sulfate, and total and dissolved organic carbon)
- Field Parameters (i.e., dissolved oxygen, and oxidation-reduction potential).

Samples collected for dissolved iron and dissolved manganese analysis were filtered in the field using in-line 0.2 micron disposable filters, represented by a notation of "F" in the sample nomenclature.



Quality assurance/quality control (QA/QC) samples consisting of analytical duplicates (AD) and equipment blanks (EB) were collected at a rate of 10% and matrix spike/matrix spike duplicates (MS/MSD) were collected at a rate of 5%. In addition, trip blanks accompanied each shipment containing samples for VOC analysis.

Each investigative or QC sample was labeled immediately following collection. Each sample identification number consisted of the following nomenclature "AAAMW#-MMYY-QAC" where:

- "AAA" denotes "Chlorobenzene Process Area (CPA)" or "Benzene Storage Area (BSA)" and "MW-#" denotes "Monitoring Well Number":
- MMY Y – Month and year of sampling quarter, e.g.: Second quarter (May) 2011, 0511
- "QAC" denotes QA/QC sample
 - AD – analytical duplicate
 - EB – equipment blank
 - MS or MSD – Matrix Spike or Matrix Spike Duplicate

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at approximately 4°C. Field personnel recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, preservative used (if applicable), analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). Prior to shipment, coolers were sealed between the lid and sides of the cooler with a custody seal, and then shipped to TestAmerica in Savannah, Georgia by means of an overnight delivery service. Field sampling data sheets are included in Appendix A, COCs are included in Appendix B.

Field personnel and equipment were decontaminated according to procedures specified in the Revised LTMP Work Plan to ensure the health and safety of those present, maintain sample integrity, and minimize movement of contamination between the work area and off-site locations. Equipment used on-site was decontaminated prior to beginning work, between sampling locations and/or uses, and prior to demobilizing from the site. Non-disposable purging and sampling equipment was decontaminated between each sample acquisition by washing with an Alconox[®] or equivalent detergent wash, a potable water rinse, and a distilled water rinse. Personnel and small equipment decontamination was performed at the sample locations. Disposable sampling equipment, such as gloves were collected and bagged on a daily basis and managed in accordance with Solutia procedures. Purge water was containerized and handled per Solutia procedures.

Biodegradation Evaluation Sampling. Bio-Trap[®] samplers and Stable Isotope Probes (SIPs), provided by Microbial Insights, Inc. (Rockford, TN), were utilized in the LTMP to provide information regarding biodegradation potential of the Shallow Hydrogeologic Unit (SHU), the MHU and the DHU. Bio-Trap[®] samplers are passive sampling tools which, over time, collect microbes across a membrane that serves as the sampling matrix. SIPs are similar passive sampling tools that are analyzed to measure the degradation of a specific contaminant (i.e., benzene and chlorobenzene).

On May 19, 2011, Geotechnology field personnel deployed Bio-Trap[®] samplers in each of the ten LTMP wells for PLFA analysis. A benzene SIP and a chlorobenzene SIP were placed in monitoring wells BSA-MW-2D and CPA-MW-3D, respectively. Bio-Trap[®] samplers and SIPs were tied to nylon line attached to the well cap and lowered to the middle of the well screen.

On June 17, 2011, the Bio-Trap[®] samplers and SIPs were retrieved from the wells, sealed in Ziploc[®] bags, labeled with the proper well identification and placed in an iced sample cooler with a signed COC. Sealed sample coolers were sent to Microbial Insights, Inc. for analysis. A copy of the Microbial Insights Data Package is included in appendix E.

3.0 LABORATORY PROCEDURES

Samples were analyzed by TestAmerica for VOCs, SVOCs and MNA parameters, using the following methodologies:

- VOCs, via USEPA SW-846 Method 8260B
- SVOCs, via USEPA SW-846 Method 8270C
- MNA parameters: alkalinity (310.1), carbon dioxide (310.1), chloride (325.2), total and dissolved iron (6010B), total and dissolved manganese (6010B), dissolved gases (RSK 175), nitrate (353.2), sulfate (375.4), and total and dissolved organic carbon (415.1).

Dichlorobenzenes were quantitated using Method 8260B because of potential volatilization losses associated with Method 8270C. Laboratory results were provided in electronic and hard copy formats.

4.0 QUALITY ASSURANCE

Analytical data were reviewed for quality and completeness, as described in the Revised Long Term Monitoring Work Plan. Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory result pages. The Quality Assurance report is included as Appendix C. The laboratory report and data review sheets are included in Appendix D.

A total of 14 groundwater samples (10 investigative samples, 1 field duplicate, 1 MS/MSD pair and 1 equipment blank) were prepared and analyzed by TestAmerica for combinations of VOCs, dissolved gases, metals, and general chemistry. In addition, three trip blank sets were included in the coolers that contained samples for VOC analysis and were analyzed for VOCs. The results for the various analyses were submitted as sample delivery group (SDG) KPS064.

The samples contained in SDG KPS064 are listed below:

SDG KPS064

BSA-MW-1S-0511	CPA-MW-02D-0511
BSA-MW-1S-0511-F(0.2)	CPA-MW-02D-0511
BSA-MW-02D-0511	CPA-MW-02D-0511-F(0.2)
BSA-MW-02D-0511-F(0.2)	CPA-MW-02D-0511-AD
BSA-MW-03D-0511	CPA-MW-03D-0511
BSA-MW-03D-0511-F(0.2)	CPA-MW-03D-0511-F(0.2)
BSA-MW-03D-EB	CPA-MW-04D-0511
BSA-MW-04D-0511	CPA-MW-04D-0511-F(0.2)
BSA-MW-04D-F(0.2)-0511	CPA-MW-05D-0511
BSA-MW-05D-0511	CPA-MW-05D-F(0.2)-0511
BSA-MW-05D-F(0.2)0511	Trip Blank #1 (Lab ID 680-68483-9)
CPA-MW-01D-0511	Trip Blank #2 (Lab ID 680-68518-10)
CPA-MW-01D-0511-F(0.2)	Trip Blank #3 (Lab ID 680-6858-6)

Evaluation of the groundwater analytical data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA 2004), and the Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009).

Based on the above mentioned criteria, groundwater results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on matrix spike/matrix spike duplicate (MS/MSD), laboratory control sample (LCS),

surrogate and field duplicate data were achieved for these SDGs to meet the project objectives. Completeness which is defined to be the percentage of analytical results which are judged to be valid with the exception of rejected (**R**) flagged data, including estimated detect/nondetect data was 98.14 percent.

5.0 OBSERVATIONS

Groundwater analytical detections and MNA results for the 2Q11 LTMP sampling event are presented in Tables 2 and 3, respectively. Five constituents - benzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene were reported in samples collected from the ten LTMP wells during this sampling event. Each of these constituents is discussed below:

Benzene - Benzene was detected in collected samples at levels above the laboratory reporting limit in eight of the ten wells sampled in 2Q11, ranging from 7.3 µg/L (CPA-MW-3D) to 630,000 µg/L (BSA-MW-1S).

Downgradient of the Former Benzene Storage Area, benzene was detected in the DHU at concentrations of 190,000 µg/L (BSA-MW-2D), 65 µg/L (BSA-MW-3D), and 21 µg/L (BSA-MW-4D). Near the river north of the Sauget Area 2 Groundwater Migration Control System (SA2 GMCS), benzene was not detected in the DHU at monitoring well BSA-MW-5D.

Benzene was detected at the Former Chlorobenzene Process Area at a concentration of 7,900 µg/L (CPA-MW-1D). Downgradient of the Former Chlorobenzene Storage Area, benzene was detected in the DHU at concentrations of 370/360 µg/L (CPA-MW-2D and duplicate), 7.3 µg/L (CPA-MW-3D), and 57 µg/L (CPA-MW-4D). Benzene was not detected in the DHU near the river north of SA2 GMCS at monitoring well CPA-MW-5D.

Chlorobenzenes (Total) - Total chlorobenzenes (e.g., sum of chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4, dichlorobenzene) were detected at levels above the laboratory reporting limit in eight of the ten wells sampled in 2Q11, ranging from 13 µg/L (BSA-MW-5D) to 25,000 µg/L (CPA-MW-2D).

Chlorobenzenes were detected at the Former Chlorobenzene Process Area at a concentration of 20,000 µg/L (CPA-MW-1D). Downgradient of the Former Chlorobenzene Storage Area, total chlorobenzenes were detected in the DHU at concentrations of 25,000/25,200 µg/L at the North Tank Farm (CPA-MW-2D and duplicate), along with concentrations of 630 µg/L (CPA-MW-3D) and 290 µg/L (CPA-MW-4D). Total chlorobenzenes were detected in the DHU near the river north of SA2 GMCS at a concentration of 1,200 µg/L (CPA-MW-5D).



Chlorobenzenes were not detected in the SHU at the Former Benzene Storage Area BSA-MW-1S). Downgradient of the Former Benzene Storage Area, total chlorobenzenes were not detected in the DHU (BSA-MW-2D); and total chlorobenzenes were detected at concentrations of 1,300 µg/L in the DHU (BSA-MW-3D). North of the SA2 GMCS, near the river, total chlorobenzenes were detected in the DHU at concentrations of 2,600 µg/L (BSA-MW-4D) and 13 µg/L (BSA-MW-5D).

Figure 4 displays benzene and total chlorobenzenes results from the 2Q11 sampling event.

Monitored Natural Attenuation - The MNA results for this quarter are presented in Table 3. PLFA and SIP laboratory results are included in Appendix E.

6.0 REFERENCES

- Solutia Inc, 2009. Revised Long Term Monitoring Program, Solutia, Inc., W.G. Krummrich Facility, Sauget, Illinois, May 2009.
- USEPA, 2004. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.
- USEPA, 2008. Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review

See last page of table for notes.

TABLE 1
MONITORING WELL GAUGING INFORMATION

J017210.14
August 2011

Well ID	Construction Details						May 2011		
	Ground Elevation* (feet)	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	Depth to Bottom (feet btoc)	Water Elevation* (feet)
Shallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)									
BSA-MW-1S	409.49	412.31	19.68	24.68	389.81	384.81	9.16	27.35	403.15
Middle Hydrogeologic Unit (MHU 380-350 feet NAVD 88)									
PMA-MW-1M	410.32	410.08	54.54	59.54	355.78	350.78	7.35	59.67	402.73
PMA-MW-2M	412.26	411.93	56.87	61.87	355.39	350.39	9.20	61.31	402.73
PMA-MW-3M	412.36	412.10	57.07	62.07	355.29	350.29	9.31	61.85	402.79
PMA-MW-5M	411.27	410.97	52.17	57.17	359.10	354.10	6.97	57.10	404.00
PS-MW-1	409.37	412.59	37.78	42.78	371.59	366.59	9.44	46.09	403.15
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)									
BSA-MW-2D	412.00	415.13	68.92	73.92	343.08	338.08	11.50	77.07	403.63
BSA-MW-3D	412.91	415.74	107.02	112.02	305.89	300.89	11.62	115.32	404.12
BSA-MW-4D	425.00	424.69	118.54	123.54	306.46	301.46	19.96	123.43	404.73
BSA-MW-5D	420.80	420.49	115.85	120.85	304.95	299.95	13.82	121.43	406.67
CPA-MW-1D	408.62	408.32	66.12	71.12	342.50	337.50	6.45	70.73	401.87
CPA-MW-2D	408.51	408.20	99.96	104.96	308.55	303.55	5.16	105.30	403.04
CPA-MW-3D	410.87	410.67	108.20	113.20	302.67	297.67	5.75	113.36	404.92
CPA-MW-4D	421.57	421.20	116.44	121.44	305.13	300.13	16.43	121.09	404.77
CPA-MW-5D	411.03	413.15	107.63	112.63	303.40	298.40	7.69	114.74	405.46
DNAPL-K-1	413.07	415.56	108.20	123.20	304.87	289.87	12.41	123.28	403.15
DNAPL-K-2	407.94	407.72	97.63	112.63	310.31	295.31	4.63	112.37	403.09
DNAPL-K-3	412.13	411.91	104.80	119.80	307.33	292.33	8.72	120.50	403.19
DNAPL-K-4	409.48	409.15	102.55	117.55	306.93	291.93	6.19	115.51	402.96
DNAPL-K-5	412.27	411.91	102.15	117.15	310.12	295.12	8.75	116.59	403.16
DNAPL-K-6	410.43	410.09	102.47	117.47	307.96	292.96	7.00	118.46	403.09
DNAPL-K-7	408.32	407.72	100.40	115.40	307.92	292.92	4.54	116.66	403.18
DNAPL-K-8	408.56	411.38	102.65	117.65	305.91	290.91	8.08	117.65	403.30
DNAPL-K-9	406.45	405.97	97.42	112.42	309.03	294.03	1.30	111.28	404.67
DNAPL-K-10	413.50	413.25	105.43	120.43	308.07	293.07	10.21	120.40	403.04
DNAPL-K-11	412.00	411.78	105.46	120.46	306.74	291.74	8.59	121.22	403.19
GM-9C	409.54	411.21	88.00	108.00	321.54	301.54	8.27	109.66	402.94

See last page of table for notes.

TABLE 1
MONITORING WELL GAUGING INFORMATION

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Well ID	Construction Details						May 2011		
	Ground Elevation* (feet)	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	Depth to Bottom (feet btoc)	Water Elevation* (feet)
Deep Hydrogeologic Unit (DHU 350 feet NAVD - Bedrock)									
GWE-1D (PIEZ-1D)	412.80	415.60	117.00	127.00	295.80	285.80	11.04	128.51	404.56
GWE-2D (PIEZ-2D)	417.45	417.14	127.00	137.00	290.45	280.45	12.95	137.12	404.19
GWE-4D (TRA3-PZADHU)	406.05	405.74	74.00	80.00	332.05	326.05	3.30	78.80	402.44
GWE-10D (PIEZ 6D)	410.15	412.87	102.50	112.50	307.65	297.65	10.43	114.90	402.44
GWE-14D (TRA5-PZCDHU)	420.47	422.90	90.00	96.00	330.47	324.47	19.46	97.00	403.44
PMA-MW-4D	411.22	410.88	68.84	73.84	342.38	337.38	8.07	73.35	402.81
PMA-MW-6D	407.63	407.32	96.49	101.49	311.14	306.14	2.76	101.80	404.56
PSMW-6	404.11	406.63	99.80	104.80	304.31	299.31	3.26	110.04	403.37
PSMW-9	403.92	403.52	100.40	105.40	303.52	298.52	0.07	105.34	403.45
PSMW-10	409.63	412.18	101.23	106.23	308.40	303.40	7.25	111.42	404.93
PSMW-13	405.80	405.53	106.08	111.08	299.72	294.72	1.50	110.86	404.03
PSMW-17	420.22	423.26	121.25	126.25	298.97	293.97	18.12	134.06	405.14

Notes:

* - Elevation based upon North American Vertical Datum (NAVD) 88 datum

bgs - Below ground surface

btoc - Below top of casing

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

J017210.14
August 2011

Sample ID	Sample Date	VOC (µg/L)				
		Benzene	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene
BENZENE STORAGE AREA						
BSA-MW-1S-0511	5/18/11	630,000	<5000	<5000	<5000	<5000
BSA-MW-2D-0511	5/18/11	190,000	<2000	<2000	<2000	<2000
BSA-MW-3D-0511	5/18/11	65	1,300	17	16	460
BSA-MW-4D-0511	5/17/11	21	2,600	<20	<20	79
BSA-MW-5D-0511	5/17/11	<1.0	13.0	<1.0	<1.0	<1.0
CHLOROBENZENE PROCESS AREA						
CPA-MW-1D-0511	5/19/11	7,900	20,000	19,000	1,600	12,000
CPA-MW-2D-0511	5/19/11	370	25,000	<200	<200	5,300
CPA-MW-2D-0511-AD	5/19/11	360	25,000	<200	<200	5,200
CPA-MW-3D-0511	5/18/11	7.3	630	<5.0	<5.0	<5.0
CPA-MW-4D-0511	5/17/11	57	290	<10	<10	<10
CPA-MW-5D-0511	5/17/11	<20	1,200	<20	<20	<20

Notes:

µg/L = micrograms per liter

< = Result is non-detect, less than the reporting limit given

BOLD indicates concentration greater than the reporting limit

AD = Analytical Duplicate

D = Sample results are obtained from a dilution

E = Result exceeded calibration range

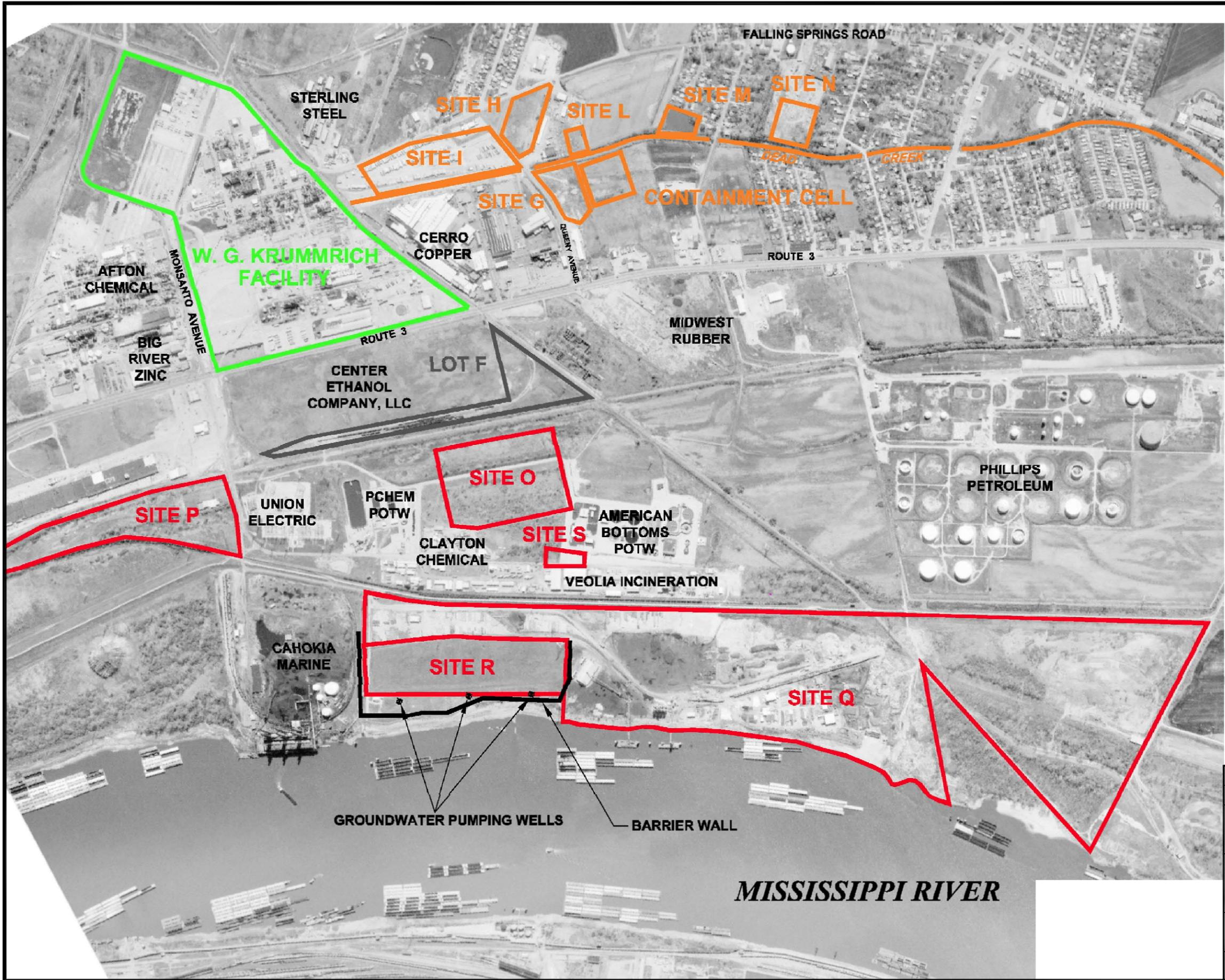
NA = Not analyzed

TABLE 3

MONITORED NATURAL ATTENUATION RESULTS SUMMARY

Sample ID	Sample Date	Alkalinity (mg/L)	Carbon Dioxide (mg/l)	Chloride (mg/L)	Ethane (ug/L)	Ethylene (ug/l)	Ferrous Iron (mg/L)	Iron (mg/L)	Iron, Dissolved (mg/L)	Manganese (mg/L)	Manganese, Dissolved (mg/l)	Methane (ug/l)	Nitrogen, Nitrate (mg/L)	Sulfate as SO ₄ (mg/L)	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	ORP (mV)	DO (mg/L)
BENZENE STORAGE AREA																		
BSA-MW-1S-0511	5/18/2011	720	31	190	<1.1	<1.0		5.2		0.59		6,800	<0.050	<5.0		7.0	-139	0.00
BSA-MW-1S-F(0.2)-0511	5/18/2011						1.01		2.6		0.56				6.8			
BSA-MW-2D-0511	5/18/2011	610	42	98	16	<1.0		4.5		0.62		13,000	<0.050	<5.0		5.2	-179	0.00
BSA-MW-2D-F(0.2)-0511	5/18/2011						1.0		3.7		0.59				6.0			
BSA-MW-3D-0511	5/18/2011	430	24	78	1.1	1.7		11		0.55		230	<0.050	200		3.7	-98	1.88
BSA-MW-3D-F(0.2)-0511	5/18/2011						1.45		8.4		0.50				4.1			
BSA-MW-4D-0511	5/17/2011	570	34	130	2.4	<1.0		8.3		0.62		70	<0.050	64		5.6	-184	2.46
BSA-MW-4D-F(0.2)-0511	5/17/2011						2.61		8.5		0.66				5.7			
BSA-MW-5D-0511	5/17/2011	710	55	110	<1.1	<1.0		24		1.6		1,900	0.091	44		5.5	-152	0.95
BSA-MW-5D-F(0.2)-0511	5/17/2011						2.38		20		1.4				5.7			
CHLOROBENZENE PROCESS AREA																		
CPA-MW-1D-0511	5/19/2011	880	<5.0	120	37	<1.0		0.93		0.058		15,000	<0.050	13		12	-88	0.04
CPA-MW-1D-F(0.2)-0511	5/19/2011						0.41		0.65		0.051				10			
CPA-MW-2D-0511	5/19/2011	510	24	80	5.3	<1.0		7.3		0.36		3,200	<0.050	<50		12	-124	0.00
CPA-MW-2D-F(0.2)-0511	5/19/2011						1.40		5.3		0.32				12			
CPA-MW-3D-0511	5/18/2011	490	28	110	5.8	<1.0		12		0.59		2,300	<0.050	48		10	-136	0.00
CPA-MW-3D-F(0.2)-0511	5/18/2011						1.79		10		0.56				9.8			
CPA-MW-4D-0511	5/17/2011	710	42	290	8.5	<1.0		11		0.27		4,800	<0.050	<5.0		5.8	-130	0.36
CPA-MW-4D-F(0.2)-0511	5/17/2011						3.38		10		0.34				6.0			
CPA-MW-5D-0511	5/17/2011	370	110	340	1.3	<1.0		52		1.5		10	<0.050	930		4.2	-79	0.00
CPA-MW-5D-F(0.2)-0511	5/17/2011						4.12		54		1.5				4.2			

Notes:
 DO and ORP were measured in the field using YSI 6920 equipped with a flow-thru cell. Values presented represent final measurements before sampling
 Ferrous Iron readings were measured in the field using a LaMotte Colorimeter after the groundwater passed through a 0.2 µm filter
 (0.2) = Sample was filtered utilizing a 0.2 µm filter during sample collection
 mg/L - milligrams per liter
 mV = millivolts
 ug/L = micrograms per liter
 < = Result is non-detect, less than the reporting limit given
 A blank space indicated sample not analyzed for select analyte
 J = Estimated value

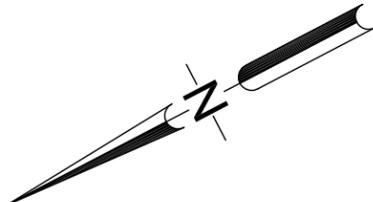


NOTES:

1. Plan adapted from a drawing titled "Site Location Map" provided by URS.

LEGEND:

- W.G. Krummrich Facility
- Sauget Area #1
- Sauget Area #2



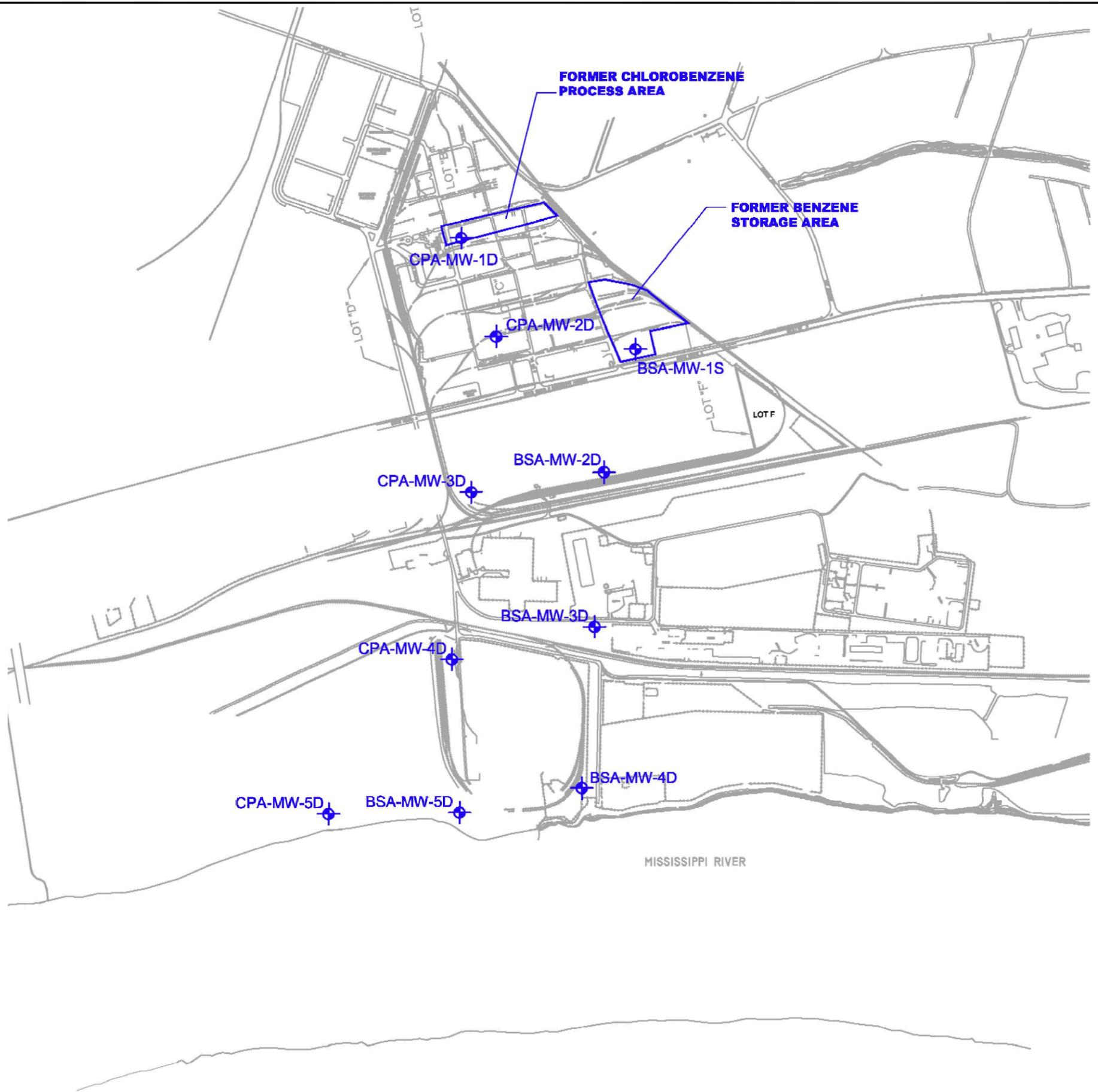
Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 07-06-11	Date: 07-06-11	Date: 07-06-11



2Q 2011
Long-Term Monitoring Program
Sauget, Illinois

SITE LOCATION MAP

Project Number J017210.14	PLATE 1
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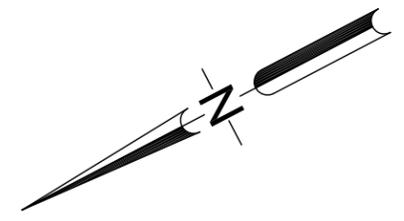


NOTES:

1. Plan adapted from a drawing titled "Long-Term Monitoring Program Well Locations" provided by URS.
2. Refer to Table 1 for Monitoring Well Construction Information.

LEGEND:

 Long Term Monitoring Well Location



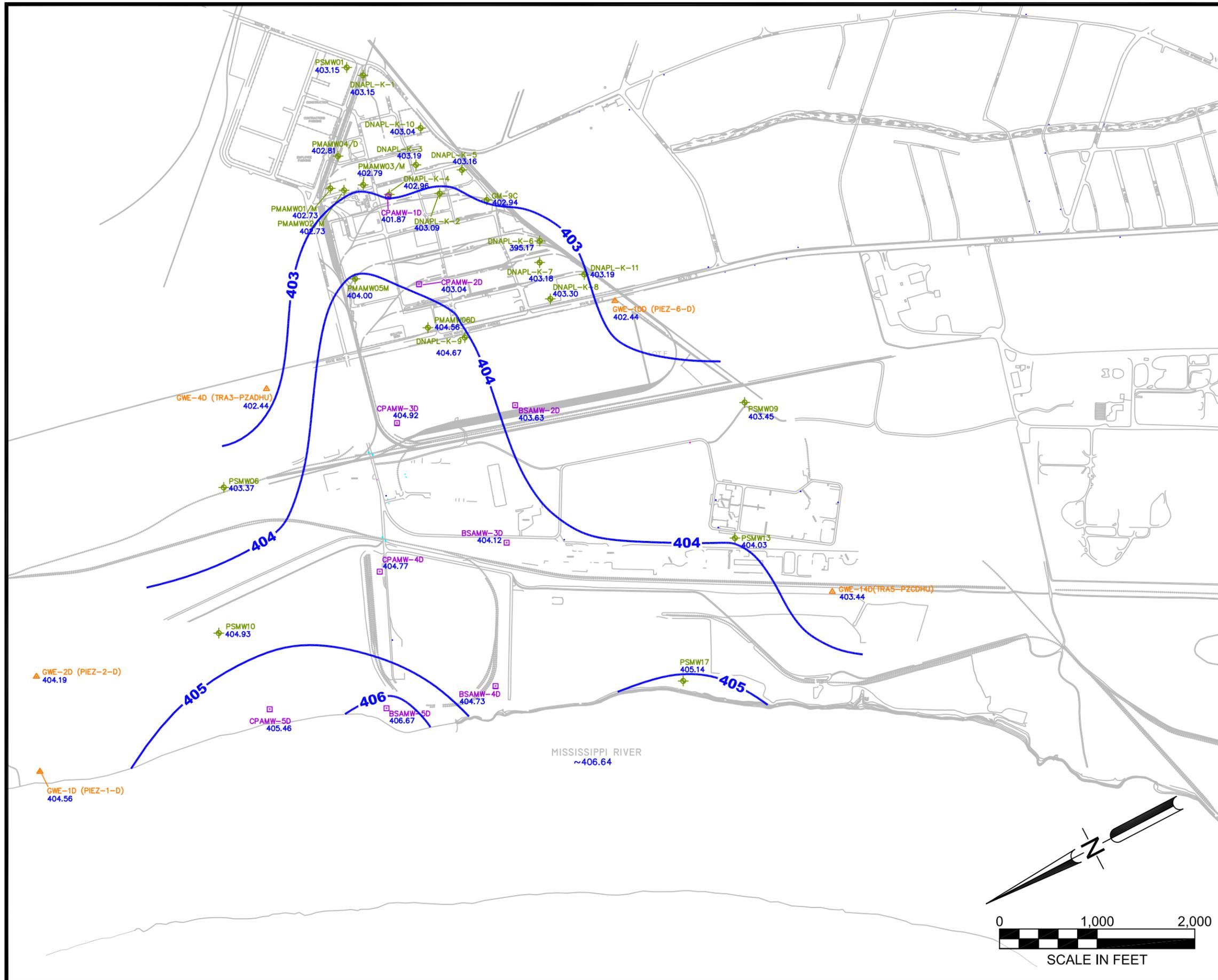
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Date: 07-06-11	Date: 07-06-11	Date: 07-06-11



2Q 2011
 Long-Term Monitoring Program
 Sauget, Illinois

LONG-TERM MONITORING PROGRAM WELL LOCATIONS

Project Number J017210.14 **PLATE 2**



NOTES:

1. Plan adapted from a drawing titled "Potentiometric Surface Map Middle/Deep Hydrogeologic Unit" provide by URS.
2. Groundwater levels were measured May 17 - May 23, 2011.
3. Contours generated primarily using surfer software version 8. Some interpretation was done using professional judgment and contour lines were modified by hand.
4. The Mississippi River stage elevation presented on the figure is an average elevation for the time of the gauging event. The information was obtained from the site R Bubbler.
5. Locations with wells screened in both the MHU and DHU utilized the DHU well for development of the potentiometric surface map.

LEGEND:

- Long Term Monitoring Well used for Groundwater Contouring
- + Other Monitoring Well used for Goundwater Contouring
- ▲ Piezometer Cluster used for Groundwater Contouring
- **402** Groundwater Elevation Contour (ft NAVD)

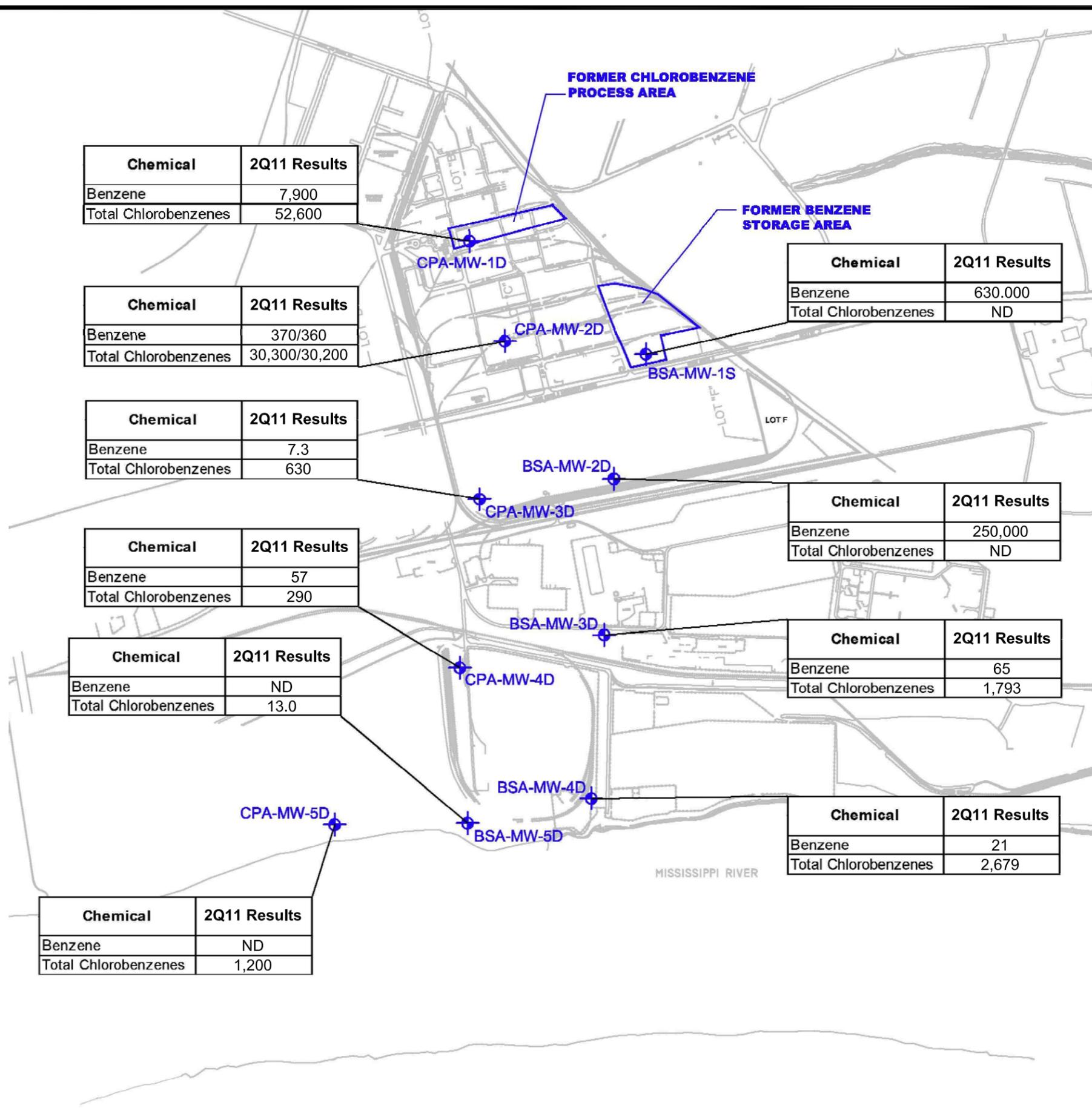
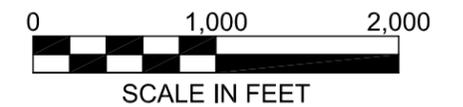
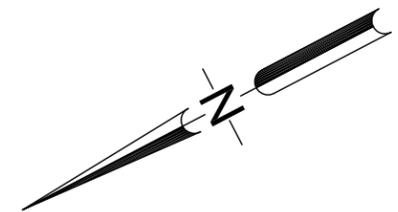
Drawn By: SLC	Ck'd By: DCW	App'vd By: DTK
Date: 07-06-11	Date: 07-06-11	Date: 07-06-11
2Q 2011 Long-Term Monitoring Program Sauget, Illinois		
POTENTIOMETRIC SURFACE MAP MIDDLE/DEEP HYDROGEOLOGIC UNIT		
Project Number J017210.14	PLATE 3	

NOTES:

1. Plan adapted from a drawing titled "Benzene and Total Chlorobenzenes Results" provided by URS.
2. Total Chlorobenzenes results include the sum of Monochlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, and 1,4-Dichlorobenzene.
3. Results shown are in ug/L.
4. ND denotes analyte or analytes not detected.
5. Multiple sample results indicate a duplicate sample.

LEGEND:

 Long-Term Monitoring Well Location



Chemical	2Q11 Results
Benzene	7,900
Total Chlorobenzenes	52,600

Chemical	2Q11 Results
Benzene	370/360
Total Chlorobenzenes	30,300/30,200

Chemical	2Q11 Results
Benzene	7.3
Total Chlorobenzenes	630

Chemical	2Q11 Results
Benzene	57
Total Chlorobenzenes	290

Chemical	2Q11 Results
Benzene	ND
Total Chlorobenzenes	13.0

Chemical	2Q11 Results
Benzene	ND
Total Chlorobenzenes	1,200

Chemical	2Q11 Results
Benzene	630.000
Total Chlorobenzenes	ND

Chemical	2Q11 Results
Benzene	250,000
Total Chlorobenzenes	ND

Chemical	2Q11 Results
Benzene	65
Total Chlorobenzenes	1,793

Chemical	2Q11 Results
Benzene	21
Total Chlorobenzenes	2,679

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 07-06-11	Date: 07-06-11	Date: 07-06-11
		
2Q 2011 Long-Term Monitoring Program Sauget, Illinois		
BENZENE AND TOTAL CHLORO BENZENES RESULTS		
Project Number J017210.14	PLATE 4	

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K Ltm 2011
 DATE: 5-18-11
 MONITORING WELL ID: BSA-mw-015

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 60F
 SAMPLE ID: BSA-mw-015-0511

FIELD PERSONNEL: KCR/VJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 27.36 ft
 Constructed Well Depth (btoc): 27.50 ft
 Depth to Water (btoc): 9.16 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 22.5 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 25 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = - ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc
 DNPL Present NU If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 0.0 ppm
 Wellbore PID/FID Reading: 396 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %										
	± 0.2		Record Data Only		± 3%		Record Data Only		± 10% or ± 0.2	
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	0755	9.26	-	-	-	-	-	-	-	-
1000	0759	9.35	clear to yellow	sweet	8.01	14.47	2.02	128	1.53	-102
2000	0804	9.37	↓	↓	8.08	14.49	2.02	73.0	0.46	-122
3000	0807	9.41	↓	↓	8.11	14.52	2.02	45.8	0.00	-133
4000	0811	9.41	↓	↓	8.13	14.53	2.03	33.2	0.0	-139
5000	0816	9.40	↓	↓	8.17	14.53	2.02	22.4	0.0	-144

Start Time: 0755
 Stop Time: 0816

Elapsed Time: 21 min
 Average Purge Rate (mL/min): 238.1

Water Quality Meter ID: Honba U-52
 Date Calibrated: 5-18-11

SAMPLING DATA

Sample Date: 5-18-11
 Sample Method: low flow

Sample Time: 0820
 Sample Flow Rate: 238.1 ml/min

Analysis: VOC, metals, MNA
 QA/QC Samples: NOAE

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO2, chloride, Ferrous Iron, methane, Nitrate Ferrous Iron (Filtered 0.2 micron) = 1.01 mg/L
Sulfate, DOC, TOC

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK LTM ZQ11
 DATE: 5-18-11
 MONITORING WELL ID: BSA-mw-2D

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 60F
 SAMPLE ID: BSA-mw-02D-0511

FIELD PERSONNEL: KCR/VJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 77.07 ft
 Constructed Well Depth (btoc): 77.05 ft
 Depth to Water (btoc): 11.5 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 72.05 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 74.55 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = - ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc
 DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 3000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 4 ppm
 Wellbore PID/FID Reading: 65.7 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %										
± 0.2		Record Data Only		± 3%		Record Data Only		± 10% or ± 0.2		± 20
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	1016	11.71	-	-	-	-	-	-	-	-
1000	1021	11.76	Gray to clear	Sulfur smell	8.02	16.84	1.43	1.8	0.13	-51
2000	1025	11.79	↓	↓	8.04	16.43	1.46	0.0	0.0	-187
3000	1029	11.74	↓	↓	8.01	16.40	1.46	0.3	0.0	-182
4000	1033	11.72	↓	↓	7.95	16.41	1.46	0.3	0.0	-179
5000	1038		↓	↓	7.80	16.43	1.46	0.7	0.0	-176

Start Time: 1016 Elapsed Time: 22 Water Quality Meter ID: Horiba U-52
 Stop Time: 1038 Average Purge Rate (mL/min): 227.27 Date Calibrated: 5-18-11

SAMPLING DATA

Sample Date: 5-18-11 Sample Time: 1040 Analysis: VOC, metals, MNA
 Sample Method: low flow Sample Flow Rate: 227.27 mL/min QA/QC Samples: none

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO2, chloride, ferrous iron, methane, nitrate Ferrous Iron (Filtered 0.2 micron) = 1.0 mg/L
sulfate, DOC, TOC

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K LTM 2Q11
 DATE: 5-18-11
 MONITORING WELL ID: BSA-mw-03D

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 60°
 SAMPLE ID: BSA-MW-03D-0511

FIELD PERSONNEL: KCR/VJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 115.32 ft
 Constructed Well Depth (btoc): 114.85 ft
 Depth to Water (btoc): 11.62 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 109.85 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 112.35 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth - 0.5 X Water Column Height + DNAPL Column Height = - ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc

DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell: 1000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 0.0 ppm
 Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %											
	± 0.2		Record Data Only		± 3%		Record Data Only		± 10% or ± 0.2		± 20
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)	
0	0907	11.95	-	-	-	-	-	-	-	-	
1000	0912	11.91	Black particulate / clear	Hydrocarbon	7.36	16.45	1.45	1.6	1.16	-95	
2000	0916	11.70	↓	↓	7.43	16.01	1.47	1.0	1.03	-99	
3000	0921	11.66	mostly clear	↓	7.42	15.96	1.48	2.0	1.88	-99	
4000	0924	11.65	↓	↓	7.44	15.99	1.49	3.0	1.69	-99	
5000	0928	11.62	↓	↓	7.56	16.10	1.49	2.6	1.94	-98	
6000	0931	11.63	↓	↓	7.62	16.12	1.49	1.9	2.00	-98	

Start Time: 0907 Elapsed Time: 24 Water Quality Meter ID: Horiba U-52
 Stop Time: 0931 Average Purge Rate (mL/min): 250 Date Calibrated: 5-18-11

SAMPLING DATA

Sample Date: 5-18-11 Sample Time: 0940 Analysis: VOC's, metals, MNA
 Sample Method: low flow Sample Flow Rate: 250 mL/min QA/QC Samples: Equipment Blank (EB)

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO₂, chloride, ferrous iron, methane, nitrate, sulfate, DOC, TOC Ferrous Iron (Filtered 0.2 micron) = 1.45 mg/L

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K LTM 2Q11
 DATE: 5-17-11
 MONITORING WELL ID: BSA-MW-4D

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 50°
 SAMPLE ID: BSA-MW-04D-0511

FIELD PERSONNEL: KCR/VJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 123.43 ft
 Constructed Well Depth (btoc): 123.23 ft
 Depth to Water (btoc): 19.96 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 118.23 ft
 Screen Length: 5' ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 120.73 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth - 0.5 X Water Column Height + DNAPL Column Height = - ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc

DNPL Present: NO If Present, Do Not Sample

Volume of Flow Through Cell: 1000 mL
 Minimum Purge Volume = (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 0.0 ppm
 Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %										
		± 0.2	Record Data Only	± 3%	Record Data Only	± 10% or ± 0.2	± 20			
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	9:02	20.30	-	-	-	-	-	-	-	-
1000	9:06	20.30	Grey with Black Particulates	Sulfur Smell	7.03	14.57	1.72	3.1	8.15	-218
2000	9:09	20.30			7.15	14.72	1.72	4.2	7.52	-220
3000	9:12	20.30			7.17	14.84	1.72	4.9	6.65	-212
4000	9:15	20.30			7.18	14.84	1.72	5.3	5.83	-208
5000	9:18	20.38	mostly clear		7.20	14.85	1.72	3.5	5.10	-204
6000	9:20	20.34			7.19	14.85	1.71	1.8	4.57	-200
7000	9:23	20.36			7.20	14.86	1.71	0.9	3.91	-195
8000	9:27	20.35			7.17	14.86	1.71	1.6	3.18	-187
10000	9:33	20.34			7.17	14.95	1.71	1.8	2.36	-184
12000	9:39				7.28	15.01	1.71	0.0	1.84	-181

Start Time: 9:02 Elapsed Time: 37 Water Quality Meter ID: Honba-452
 Stop Time: 9:39 Average Purge Rate (mL/min): 324.32 Date Calibrated: 5-16-11

SAMPLING DATA

Sample Date: 5-17-11 Sample Time: 9:45 Analysis: VOC, metals, MNA
 Sample Method: low flow Sample Flow Rate: 324.32 mL/min QA/QC Samples: NONE

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO2, chloride, ferrous Iron, methane, nitrate Ferrous Iron (Filtered 0.2 micron) = 2.61 mg/L
Sulfate, Toc, DOC

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K LTM 2Q11
 DATE: 5-17-11
 MONITORING WELL ID: BSA-MW-05D

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 60°F
 SAMPLE ID: BSA-MW-05D-0511

FIELD PERSONNEL: KCR/VJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 121.43 ft
 Constructed Well Depth (btoc): 120.54 ft
 Depth to Water (btoc): 13.82 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 115.54 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 118.04 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = _____ ft btoc
 DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell: 1000 mL
 Minimum Purge Volume = _____ mL
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 0.0 ppm
 Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %										
± 0.2 Record Data Only ± 3% Record Data Only ± 10% or ± 0.2 ± 20										
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	1303	14.0	-	-	-	-	-	-	-	-
1000	1307	14.05	mostly clear	Slight Hydrocarbon	7.09	18.5	1.71	4.5	0.60	-148
2000	1311	14.05	↓	↓	7.17	17.98	1.72	6.0	0.0	-152
3000	1315	14.02	↓	↓	7.22	17.86	1.73	8.4	1.26	-153
4000	1318	14.0	↓	↓	7.20	17.66	1.72	9.4	1.09	-152
5000	1321	14.0	↓	↓	7.22	17.56	1.72	9.0	.93	-153
6000	1324	14.02	↓	↓	7.20	17.44	1.72	9.3	.82	-151

Start Time: 1303 Elapsed Time: 21 min Water Quality Meter ID: Horiba U-52
 Stop Time: 1324 Average Purge Rate (mL/min): 295.71 Date Calibrated: 5-17-11

SAMPLING DATA

Sample Date: 5-17-11 Sample Time: 1330 Analysis: VOC's, metals, MNA
 Sample Method: low flow Sample Flow Rate: 285.71 mL/min QA/QC Samples: None

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO₂, chloride, ferrous iron, methane, nitrate, sulfate, DOC, TOC Ferrous Iron (Filtered 0.2 micron) = 2.38 mg/L

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K LTM ZQ1
 DATE: 5-19-11
 MONITORING WELL ID: CPA-mw-01D

PROJECT NUMBER: J017210.14
 WEATHER: Cloudy 65°
 SAMPLE ID: CPA-mw-01D-0511

FIELD PERSONNEL: KCR / VJE

INITIAL DATA

Well Diameter: 2 in
 Measured Well Depth (btoc): 70.73 ft
 Constructed Well Depth (btoc): 70.82 ft
 Depth to Water (btoc): 6.45 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 65.82 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 69.32 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = - ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc
 DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 4.2 ppm
 Wellbore PID/FID Reading: 229 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %
 ± 0.2 Record Data Only ± 3% Record Data Only ± 10% or ± 0.2 ± 20

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	0743	5.74	-	-	-	-	-	-	-	-
1000	0746	5.76	yellow to gray	sweet	10.0	15.94	1.74	64.6	1.92	-41
2000	0750	5.75	↓	↓	9.59	15.77	1.99	49.4	0.63	-64
3000	0753	5.80	↓	↓	9.53	15.79	2.09	34.5	0.11	-81
4000	0756	5.81	↓	↓	9.46	15.80	2.14	30.0	0.0	-88
5000	0759	5.80	↓	↓	9.50	15.81	2.17	25.9	0.0	-95

Start Time: 0743
 Stop Time: 0759

Elapsed Time: 16 min
 Average Purge Rate (mL/min): 312.5

Water Quality Meter ID: Horiaba U-52
 Date Calibrated: 5-19-11

SAMPLING DATA

Sample Date: 5-19-11
 Sample Method: low flow

Sample Time: 0810
 Sample Flow Rate: 312.5 mL/min

Analysis: VOC's, metals, MNA's
 QA/QC Samples: None

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO₂, chloride, Ferrous Iron, methane, nitrate, Sulfate, DOC, TOC Ferrous Iron (Filtered 0.2 micron) = 0.41 mg/L

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W616 LTM 2Q11
 DATE: 5-19-11
 MONITORING WELL ID: CPA-MW-02D

PROJECT NUMBER: J017210.14
 WEATHER: cloudy 65°
 SAMPLE ID: CPA-MW-02D-0511

FIELD PERSONNEL: KCR/VJG

INITIAL DATA

Well Diameter: 2 in
 Measured Well Depth (btoc): 105.3 ft
 Constructed Well Depth (btoc): 104.65 ft
 Depth to Water (btoc): 5.16 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 99.65 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 102.15 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = _____ ft btoc
 DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 2.5 ppm
 Wellbore PID/FID Reading: 8.1 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	± 0.2	Record Data Only	± 3%	Record Data Only	± 10% or ± 0.2	± 20
					pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	0848	5.47	-	-	-	-	-	-	-	-
1000	0852	5.48	Grayish - black	sweet	7.70	17.31	1.35	304	0.65	-112
2000	0855	5.49	↓	↓	7.56	17.21	1.37	305	0.02	-120
3000	0858	5.51			7.54	17.16	1.37	264	0.0	-123
4000	0901	5.50			7.51	17.14	1.36	222	0.0	-123
5000	0904	5.50			7.53	17.15	1.35	189	0.0	-125
6000	0907	5.50			7.52	17.14	1.35	150	0.0	-124
7000	0910	5.50			7.57	17.15	1.35	126	0.0	-125
8000	0913	5.50			7.51	17.19	1.35	97.8	0.0	-122

Start Time: 0848
 Stop Time: 0913

Elapsed Time: 25 min
 Average Purge Rate (mL/min): 320

Water Quality Meter ID: Hanna U-52
 Date Calibrated: 5-19-11

SAMPLING DATA

Sample Date: 5-19-11
 Sample Method: low flow

Sample Time: 0915
 Sample Flow Rate: 320 mL/min

Analysis: VOC's, metals, MNA'S
 QA/QC Samples: Analytical Duplicate (AD)

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO₂, Chloride, Ferrous Iron, methane, Nitrate Ferrous Iron (Filtered 0.2 micron) = 1.40 mg/L
Sulfate, DOC, TOC

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: Wbk Ltm 2011
 DATE: 5-18-11
 MONITORING WELL ID: CFA-mw-03D

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 70°F
 SAMPLE ID: CFA-MW-03D-0511

FIELD PERSONNEL: KCR / UJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 113.36 ft
 Constructed Well Depth (btoc): 113.00 ft
 Depth to Water (btoc): 5.75 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 108 ft
 Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 110.5 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = _____ ft btoc
 DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 0.0 ppm
 Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: QED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %											
				± 0.2	Record Data Only	± 3%	Record Data Only	± 10% or ± 0.2	± 20		
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)	
0	1223	6.05	-	-	-	-	-	-	-	-	-
1000	1226	6.09	Clear	NOAE	7.21	17.86	1.39	1.3	1.21	-127	
2000	1230	6.09	↓	↓	7.33	17.49	1.42	0.0	0.13	-135	
3000	1233	6.09	↓	↓	7.53	17.36	1.42	0.0	0.0	-135	
4000	1236	6.08	↓	↓	7.63	17.34	1.42	0.0	0.0	-137	
5000	1240	6.08	↓	↓	7.59	17.28	1.43	0.0	0.0	-135	
6000	1243		↓	↓	7.54	17.36	1.42	0.0	0.0	-136	

Start Time: 1223 Elapsed Time: 20 min
 Stop Time: 1243 Average Purge Rate (mL/min): 300
 Water Quality Meter ID: Horiba U-52
 Date Calibrated: 5-18-11

SAMPLING DATA

Sample Date: 5-18-11 Sample Time: 1245
 Sample Method: low flow Sample Flow Rate: 300 mL/min
 Analysis: VOC, metals, MNA
 QA/QC Samples: NOAE

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO2, chloride, Ferrous Iron, methane, nitrate Ferrous Iron (Filtered 0.2 micron) = 1.79 mg/L
Sulfate, DOC, TOC

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K LTM 2Q11
 DATE: 5-17-11
 MONITORING WELL ID: CPA-mw-04D

PROJECT NUMBER: J017210.14
 WEATHER: Sunny 60F
 SAMPLE ID: CPA-mw-04D-0511

FIELD PERSONNEL: KCR/VJE

INITIAL DATA

Well Diameter: 2" in
 Measured Well Depth (btoc): 121.09 ft
 Constructed Well Depth (btoc): 121.07 ft
 Depth to Water (btoc): 16.43 ft
 Depth to LNAPL/DNAPL (btoc): - ft
 Depth to Top of Screen (btoc): 116.07 ft
 Screen Length: 5' ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft
 If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
 Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 118.57 ft btoc
 If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
 Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = - ft btoc
 If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc

DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
 Minimum Purge Volume =
 (3 x Flow Through Cell Volume) 3000 mL
 Ambient PID/FID Reading: 0.0 ppm
 Wellbore PID/FID Reading: 16.95 ppm

PURGE DATA

Pump Type: RED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	± 0.2	Record Data Only	± 3%	Record Data Only	± 10% or ± 0.2	± 20
					pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	1359	16.97	-	-	-	-	-	-	-	-
1000	1403	16.96	mostly clear	Slight Hydrocarbon	7.01	17.5	2.01	8.8	0.27	-114
2000	1407	16.98			7.15	17.33	2.19	8.7	1.23	-124
3000	1412	16.96			7.20	17.23	2.23	9.1	2.06	-127
4000	1416	17.00			7.19	16.98	2.25	9.1	0.89	-127
5000	1419	16.96			7.23	17.02	2.25	8.5	0.60	-129
6000	1422	16.97			7.21	16.99	2.24	8.8	0.35	-129
7000	1426				7.22	17.04	2.24	8.6	0.12	-131

Start Time: 1359
 Stop Time: 1426

Elapsed Time: 27 min
 Average Purge Rate (mL/min): 259.26

Water Quality Meter ID: Hanba U-52
 Date Calibrated: 5-17-11

SAMPLING DATA

Sample Date: 5-17-11
 Sample Method: low flow

Sample Time: 1430
 Sample Flow Rate: 259.26 mL/min

Analysis: VOC's, metals, MNA
 QA/QC Samples: none

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO₂, chloride, ferrous iron, methane, nitrate sulfate, DOC, TOC Ferrous Iron (Filtered 0.2 micron) = 3.38

Drawn 607 0773
 607 344 1079

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WBK LTM 2011 PROJECT NUMBER: J017210.14 FIELD PERSONNEL: KCR/VJE
 DATE: 5-17-11 WEATHER: Sunny 60 F
 MONITORING WELL ID: CFA-MW-050 SAMPLE ID: CFA-MW-050-0511

INITIAL DATA

Well Diameter: 2" in Water Column Height (do not include LNAPL or DNAPL): _____ ft Volume of Flow Through Cell): 1000 mL
 Measured Well Depth (btoc): 114.74 ft If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet Minimum Purge Volume =
 Constructed Well Depth (btoc): 114.75 ft Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 112.25 ft btoc (3 x Flow Through Cell Volume) 3000 mL
 Depth to Water (btoc): 7.69 ft If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft, Ambient PID/FID Reading: 0.0 ppm
 Depth to LNAPL/DNAPL (btoc): _____ ft Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc Wellbore PID/FID Reading: 0.0 ppm
 Depth to Top of Screen (btoc): 109.75 ft If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = _____ ft btoc
 Screen Length: 5 ft DNAPL Present NO If Present, Do Not Sample

PURGE DATA

Pump Type: RED Sample Pro

HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %										
		± 0.2	Record Data Only	± 3%	Record Data Only	± 10% or ± 0.2				± 20
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	11:04	7.81	—	—	—	—	—	—	—	—
1000	11:08	7.84	clear	none	6.75	15.11	3.04	0.0	0.0	-79
2000	11:11	7.82	↓	↓	6.73	14.96	3.05	0.0	0.0	-79
3000	11:16	7.82	↓	↓	6.71	14.91	3.08	0.0	0.0	-78
4000	11:19	7.82	↓	↓	6.70	14.90	3.11	0.0	0.0	-79
5000	11:23	7.82	↓	↓	6.68	14.97	3.13	0.0	0.0	-79

Start Time: 11:04 Elapsed Time: 19 min Water Quality Meter ID: Horiba u-52
 Stop Time: 11:23 Average Purge Rate (mL/min): 263.15 Date Calibrated: 5-17-11

SAMPLING DATA

Sample Date: 5-17-11 Sample Time: 11:30 Analysis: VOC, metals, MNA
 Sample Method: low flow Sample Flow Rate: 263.15 mL/min QA/QC Samples: MS, MSD

VOA Vials, No Headspace Initials: KCR

COMMENTS: MNA: Alkalinity, CO₂, chloride, ferrous iron, methane, nitrate Ferrous Iron (Filtered 0.2 micron) = 4.12 mg/L
Sulfate, DOC, TOC

APPENDIX B

CHAINS-OF-CUSTODY

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

2Q 11 LTM samples

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE WOK LTM 2Q11	PROJECT NO. J017210.14	PROJECT LOCATION (STATE) IL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1	OF 1		
TAL (LAB) PROJECT MANAGER Gm Rinaldi	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOC 8260	Total P/mn #610B	Alka / CO2 310.1	Chloride 325.2	Sulfate 375.4	methane ethane #204	RSK 125	Nitrate 353.2	TOC 415.1	Diss Fe/mn #610B	DOC 415.1	STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>	DATE DUE	
CLIENT (SITE) PM Gm Rinaldi	CLIENT PHONE 314-674-3312	CLIENT FAX 314-674-8808		HCL	HNO3	PRESERVATIVE										EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>	DATE DUE
CLIENT NAME Solutia, Inc	CLIENT E-MAIL gmcina@solutia.com															NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
CLIENT ADDRESS 575 Maryville Center Dr. St. Louis, mo 63141	COMPANY CONTRACTING THIS WORK (if applicable)																

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SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME							HCL	HNO3	NO3	NO2	NO	SO4	CHL	ALKA	TOC	DISS	
5-17-11	1430	CPA-mw-04D-0511	G	A				3	1	1	1	3	2	1			Filtered	
	1430	CPA-mw-04D-F(2)-0511	G	A										1	1		Filtered	
	1330	BSA-mw-05D-0511	G	A				3	1	1	1	3	2	1			Filtered	
	1330	BSA-mw-05D-F(2)-0511	G	A										1	1		Filtered	
	0945	BSA-mw-04D-0511	G	A				3	1	1	1	3	2	1			Filtered	
	0945	BSA-mw-04D-F(2)-0511	G	A										1	1		Filtered	
	1130	CPA-mw-05D-0511	G	A				3	1	1	1	3	2	1			Filtered	
	1130	CPA-mw-05D-F(2)-0511	G	A										1	1		Filtered	
	1130	CPA-mw-05D-0511-MS	G	A				3										
	1130	CPA-mw-05D-0511-MSD	G	A				3										
		Trip Blank # 1 - 0511						2										

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 5-17-11	TIME 4:35	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>		DATE 5/18/11	TIME 0935	CUSTODY INTACT YES <input type="checkbox"/> NO <input type="checkbox"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-68483	LABORATORY REMARKS 1.0/1.6°C
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

2Q11 LTM Samples

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE W6K LTM 2Q11	PROJECT NO. J017210.14	PROJECT LOCATION (STATE) FL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1	OF 1	
TAL (LAB) PROJECT MANAGER GM Rinaldi	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOC 8260	Total Fe/mn 6610B	Alka/Co2 310.1	chloride 325.2	Sulfate 375.4	Methylarsenate 4470A	RSK 125	Mn/Co2 353.2	TOC 415.1	Dis Fe/mn 6610B	DOC 415.1	STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>	
CLIENT (SITE) PM GM Rinaldi	CLIENT PHONE 314-674-3312	CLIENT FAX 314-674-8808		DATE DUE	PRELIMINARY											EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>
CLIENT NAME Solutia, Inc	CLIENT E-MAIL gmcina@solutia.com			DATE DUE												NUMBER OF COOLERS SUBMITTED PER SHIPMENT:
CLIENT ADDRESS 575 Maryville Center Dr, St. Louis, MO 63141	COMPANY CONTRACTING THIS WORK (if applicable)															

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SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME							1	2	3	4	5	6	7	8	9	10	
5-18-11	1245	CPA-mw-03D-0511	G	A				3	1	1	1	3	2	1				
	1245	CPA-mw-03D-FC.2)-0511	G	A										1	1		Filtered	
	1040	BSA-mw-03D-0511	G	A				3	1	1	1	3	2	1				
	1040	BSA-mw-03D-FC.2)-0511	G	A										1	1		Filtered	
	0940	BSA-mw-03D-0511	G	A				3	1	1	1	3	2	1				
	0940	BSA-mw-03D-FC.2)-0511	G	A										1	1		Filtered	
	0940	BSA-mw-03D-0511-EB	G	A				3									Equipment Blank	
	0820	BSA-mw-01S-0511	G	A				3	1	1	1	3	2	1				
	0820	BSA-mw-01S-FC.2)-0511	G	A										1	1		Filtered	
		Trip Blank # 2 - 0511						2										

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 5-18-11	TIME 3:45	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY								
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE 5/19/11	TIME 0915	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-68518	LABORATORY REMARKS 3.7°C/31.0°C		

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

2011 LTM Samples

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE WGK LTM 2Q11	PROJECT NO. J017210-14	PROJECT LOCATION (STATE) IL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER Gm Rinaldi	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT...)	VOL	Fe/mn	As	Cl	Sulfate	Method	N. Hete	TOL	Diss	DOC	STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>
CLIENT (SITE) PM Gm Rinaldi	CLIENT PHONE 314-674-3312	CLIENT FAX 314-674-8888		HCL	6010B	310.1	325.2	375.4	ethane	353.2	415.1	6010B	415.1	DATE DUE _____
CLIENT NAME Solutia, Inc	CLIENT E-MAIL			NEG										EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>
CLIENT ADDRESS 575 Marquette Center Dr, St. Louis, MO 63141	COMPANY CONTRACTING THIS WORK (if applicable)			NEG										DATE DUE _____

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME							HCL	As	Cl	Sulfate	Method	N. Hete	TOL	Diss	DOC	HCL	
5-19-11	0810	CPA-MW-01D-0511	G	A				3	1	1	1	3	2	1				
	0810	CPA-MW-01D-FC(2)-0511	G	A											1	1	Filtered	
	0915	CPA-MW-02D-0511	G	A				3	1	1	1	3	2	1			Filtered	
	0915	CPA-MW-02D-FC(2)-0511	G	A											1	1		
	0915	CPA-MW-02D-0511-AD	G	A				3									Analytical Duplicate	
		Trip Blank #3-0511						3									Trip Blank	

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 5-19-11	TIME 3:00	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY						
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE 5/20/11	TIME	CUSTODY INTACT YES <input type="checkbox"/> NO <input type="checkbox"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-68580	LABORATORY REMARKS 2.8°C

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APPENDIX C

QUALITY ASSURANCE REPORT

**SECOND QUARTER 2011
LONG-TERM MONITORING PROGRAM
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS**

Prepared for:

SOLUTIA INC.
St. Louis, Missouri

Prepared by:

GEOTECHNOLOGY, INC.
St. Louis, Missouri

Geotechnology, Inc. Report No. J017210.14

August 26, 2011



SECOND QUARTER 2011
LONG-TERM MONITORING PROGRAM
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

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J017210.14

SECOND QUARTER 2011
LONG-TERM MONITORING PROGRAM
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in May of 2011 at the Solutia W.G. Krummrich plant as part of the 2nd Quarter 2011 Long-Term Monitoring Program. The samples were collected by Geotechnology, Inc. (Geotechnology) personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methodologies. Groundwater samples were analyzed for volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), metals, dissolved gases, and general chemistry parameters.

Geotechnology subcontracted with the M.J.W. Corporation to conduct third party Level III and Level IV data validation. One hundred percent of the data was subjected to a data quality review (Level III validation.) M.J.W. Corporation selected eight random groundwater samples for Level IV data validation (BSA-MW-4D-0511, BSA-MW-4D-0511-F(0.2), BSA-MW-5D-0511, BSA-MW-5D-0511-F(0.2), CPA-MW-5D-0511, CPA-MW-5D-0511-F(0.2), CPA-MW-4D,0511, CPA-MW-4D-0511-F(0.2)). The Level III and Level IV reviews were performed in order to confirm that the analytical data provided by TestAmerica were acceptable in quality for their intended use.

A total of 14 samples (ten investigative groundwater samples, one field duplicate, one matrix spike and matrix spike duplicate (MS/MSD) pair, and one equipment blank) were analyzed by TestAmerica. In addition, three trip blank samples were included in the cooler shipments that contained groundwater samples for VOC analyses and were analyzed for VOCs. These samples were analyzed as part of Sample Delivery Group (SDG) KPS064 utilizing the following USEPA SW-846 Methods:

- Method 8260B for VOCs (Benzene, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene and 1,4-Dichlorobenzene)
- Method 8270C for SVOCs on select samples (4-chloroaniline, 1,2,4-trichlorobenzene, 2-chlorophenol and 1,4-dioxane)
- Method 6010 for total and dissolved iron and manganese



Samples were also analyzed for dissolved gases and general chemistry parameters by the following methods:

- Method RSK-175 for dissolved gases (Ethane, Ethylene and Methane)
- Method 325.2 for Chloride
- Method 353.2 for Nitrogen, Nitrate
- Method 375.4 for Sulfate
- Method 415.1 for Total and Dissolved Organic Carbon
- Method 310.1 for Alkalinity and Carbon Dioxide

Samples were reviewed following procedures outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004, and the Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009).

The above guidelines provided the criteria to review the data. Additional quantitative criteria are given in the analytical methods. Data was qualified based on the data quality review. Qualifiers assigned indicate data that did not meet acceptance criteria and for which corrective actions were not successful or not performed. The various qualifiers are explained in Tables 1 and 2 below:

Table 1 – Laboratory Data Qualifiers

Lab Qualifier	Definition
U	Indicates the analyte was analyzed for but not detected.

Table 2 – Geotechnology (MJW Corporation) Data Qualifiers

MJW Corp. Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Based on the criteria outlined, it is recommended that the results reported for these analyses are accepted for their intended use. Acceptable levels of accuracy, precision, and representativeness (based on MS/MSD, LCS, surrogate compounds and field duplicate results) were achieved for this data set, except where noted in this report. In addition, analytical completeness, defined to be the percentage of analytical results which are judged to be valid with the exception of rejected (**R**) flagged data, including estimated detect/nondetect (**J/UJ**) values was 98.14 percent, which meets the completeness of goal of 95 percent.

The data review included evaluation of the following criteria:

Organics

- Receipt condition and sample holding times
- Laboratory method blanks, and field equipment blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample recoveries and relative percent difference (RPD)
- Field duplicate results
- Results reported from dilutions
- Internal standard responses
- Mass spectrometer tuning
- Calibration
- Compound identification
- Other problems/documentation

Inorganics

- Receipt condition and sample holding times
- Laboratory method blank
- LCS recoveries
- MS/MSD sample recoveries and matrix duplicate RPD values
- Field duplicate and laboratory duplicate results
- Results reported from dilutions

2.0 RECEIPT CONDITION AND SAMPLE HOLDING TIMES

Sample holding time requirements for the analyses performed are presented in the methods and/or in the data review guidelines. Review of the sample collection, extraction and analysis dates involved comparing the chain-of-custody and the laboratory data summary forms for accuracy, consistency, and holding time compliance.

Extractions and/or analyses were completed within the recommended holding time requirements.

The cooler receipt form indicated that three of the coolers were received by the laboratory at temperatures within the $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ criteria, and two were received below that criteria. The

VOA vials for sample BSA-MW-05D-0511 were received with headspace in them. All amber containers (TOC/DOC) needed the pH adjusted. Otherwise, samples received were in good condition; therefore, no qualification of data was required.

3.0 LABORATORY METHOD AND EQUIPMENT BLANK SAMPLES

Laboratory method blank samples evaluate the existence and magnitude of contamination problems resulting from laboratory activities. All laboratory method blank samples were analyzed at the method prescribed frequencies. No analytes were detected in the method blank; therefore, no qualification of date was required.

Equipment blank samples are used to assess the effectiveness of equipment decontamination procedures. No analytes were detected in the equipment blank sample.

4.0 SURROGATE SPIKE RECOVERIES

Surrogate compounds are used to evaluate overall laboratory performance for sample preparation efficiency on a per sample basis. All samples analyzed for VOCs were spiked with surrogate compounds during sample preparation. USEPA National Functional Guidelines for Superfund Organic Methods Data Review state how data is qualified, if surrogate spike recoveries do not meet evaluation criteria. No qualification of data was required.

5.0 LABORATORY CONTROL SAMPLE RECOVERIES

Laboratory control samples (LCS) are analyzed with each analytical batch to assess the accuracy of the analytical process. All LCS recoveries were within evaluation criteria. No qualification of data was required.

6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) SAMPLES

MS/MSD samples are analyzed to assess the accuracy and precision of the analytical process on an analytical sample in a particular matrix. MS/MSD samples were required to be collected at a frequency of one per 20 investigative samples in accordance with the work plan (one per 20 investigative samples or 5%). Geotechnology submitted one MS/MSD sample set for ten investigative samples and, therefore, met the work plan frequency requirement.

Method 6010B (ICP Metals): The matrix spike/matrix spike duplicate (MS/MSD) recoveries for sample 680-68480-B-7-B-MS was outside of control limits for Total Manganese and Dissolved Manganese. Sample concentration was more than four times greater than the spike concentration so no qualification necessary.

Method 6010B (ICP Metals): The matrix spike/matrix spike duplicate (MS/MSD) recoveries for sample 680-68518-1 were outside of control limits for Total Iron and Dissolved Iron. Sample concentration was more than four times greater than the spike concentration so no qualification necessary.

Method(s) 325.2 (Chloride): The matrix spike/matrix spike duplicate (MS/MSD) recoveries for sample 680-68483-1 were outside control limits. Sample concentration was more than four times greater than the spike concentration so no qualification necessary.

Method(s) 325.2 (Chloride): The matrix spike/matrix spike duplicate (MS/MSD) recoveries for sample 680-68518-1 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No qualifications were made to the data if the MS/MSD percent recoveries were zero due to dilutions or if the Relative Percent Difference (RPD) was the only factor outside of criteria. Also, USEPA National Functional Guidelines for Superfund Organic Methods Data Review (2008) states that organic data does not need qualification based on MS/MSD criteria alone. Therefore, if recoveries were outside evaluation criteria due to matrix interference or abundance of analytes, no qualifiers were assigned unless these analytes had other quality control criteria outside evaluation criteria.

7.0 FIELD DUPLICATE RESULTS

Field duplicate results are used to evaluate precision of the entire data collection activity, including sampling, analysis and site heterogeneity. When results for both duplicate and sample values are greater than five times the practical quantitation limit (PQL), satisfactory precision is indicated by an RPD less than or equal to 25 percent for aqueous samples. Where one or both of the results of a field duplicate pair are reported at less than five times the PQL, satisfactory precision is indicated if the field duplicate results agree within 2 times the quantitation limit. Field duplicate results that do not meet these criteria may indicate unsatisfactory precision of the results.

One field duplicate sample was collected for the ten investigative samples. This satisfies the requirement in the work plan (one per 10 investigative samples or 10 percent). Field duplicate results were within evaluation criteria. No qualifications of data were required.

8.0 INTERNAL STANDARD RESPONSES

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. For the VOCs, the IS areas must be within -50 percent to +100 percent of the preceding calibration verification (CV) IS value. Also, the IS retention times must be within 30 seconds of the preceding IS CV retention time.

The internal standards area responses for VOCs were verified for the data reviews. IS responses met the criteria as described above. No qualifications of data were required.

9.0 RESULTS REPORTED FROM DILUTIONS

The analytical testing results for 1,2,4-Trichlorobenzene for sample CPA-MW-1D-0211 and 4-Chloroaniline for sample CPA-MW-4D-0211 were initially reported as exceeding the calibration range, which was qualified with an E. The laboratory subsequently diluted and re-analyzed the samples, and those results were qualified with a D.

10. MASS SPECTROMETER TUNING

Instrument performance was determined to be satisfactory. No qualifications of data were required.

11.0 CALIBRATION

Percent Relative Standard Deviation (%RSD) is used to indicate the stability of a specific compound response factor over increasing concentration. Percent D (%D) is a measure of the instrument's daily performance. Percent RSD must be <30% and Percent D must be <25%. No qualifications of data were required.

12.0 COMPOUND IDENTIFICATION

Compound identification was determined to be satisfactory. No qualifications of data were required.

13.0 OTHER PROBLEMS/DOCUMENTATION

The analytical testing results for Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) were estimated for samples BSA-MW-3D-0511 and BSA-MW-3D-0511-F(0.2) because the dissolved result was greater than the total result by at least 10%. Samples CPA-MW-4D-0511 and CPA-MW-4D-0511-F(0.2) were estimated for manganese because the dissolved result is greater than the total result by at least 10%. The sample results qualified as estimated by MJW Corporation are summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
BSA-MW-3D-0511-F(0.2)	Inorganics	DOC	J
BSA-MW-3D-0511	Inorganics	TOC	J
CPA-MW-4D-0511	Inorganics	Manganese	J
CPA-MW-4D-0511-F(0.2)	Inorganics	Manganese	J

APPENDIX D

**GROUNDWATER ANALYTICAL RESULTS
(WITH DATA REVIEW SHEETS)**

SDG KPS064

Results of Samples from Monitoring Wells:

**CPA-MW-4D
BSA-MW-5D
BSA-MW-4D
CPA-MW-5D
BSA-MW-3D
BSA-MW-2D
BSA-MW-3D
BSA-MW-1S
CPA-MW-1D
CPA-MW-2D**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-68483-1
TestAmerica Sample Delivery Group: KPS064
Client Project/Site: WGK Long Term Monitoring - 2Q11 MAY
2011

For:
Solutia Inc.
575 Maryville Centre Dr.
Saint Louis, Missouri 63141

Attn: Mr. Jerry Rinaldi

Lidya Gulizia

Authorized for release by:
06/27/2011 05:46:54 PM

Lidya Gulizia
Project Manager II
lidya.gulizia@testamericainc.com

cc: Duane Kreuger

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Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

*7/25/11
ACE*

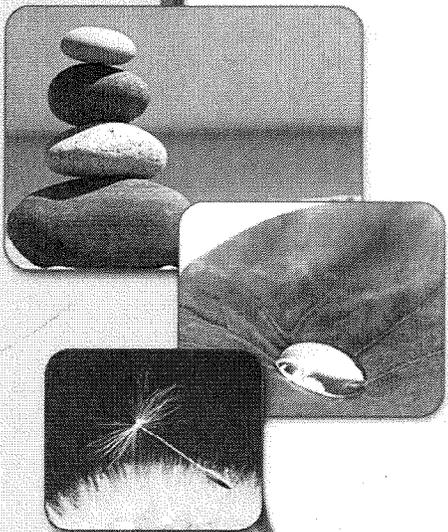


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Case Narrative

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Job ID: 680-68483-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative
680-68483-1 / SDG KPS064 (Revised 8/3/11)

Receipt

The following sample(s) was received with headspace in one of the three sample vials: BSA-MW-05D-0511 (680-68483-3).

All other samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC VOA

No analytical or quality issues were noted.

Metals

Method(s) 6010B: Due to the high concentration of manganese, the matrix spike / matrix spike duplicate (MS/MSD) for batch 680-203349 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 6010B: Due to the high concentration of iron, the matrix spike / matrix spike duplicate (MS/MSD) for batch 680-203594 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry

Method(s) 325.2, SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 204782 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 325.2, SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 205309 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 375.4: The following sample(s) was diluted due to the nature of the sample matrix: CPA-MW-02D-0511 (680-68580-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Comments

The report was revised on 8/3/11 in order to correct the client identification for lab ID 68580-5 in order to identify the sample as the client field duplicate (-AD suffix added).

No additional comments.

TestAmerica Savannah

He
8/4/11

Sample Summary

Client: Solutia Inc.

TestAmerica Job ID: 680-68483-1

Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-68483-1	CPA-MW-04D-0511	Water	05/17/11 14:30	05/18/11 09:33
680-68483-2	CPA-MW-04D-F(.2)-0511	Water	05/17/11 14:30	05/18/11 09:33
680-68483-3	BSA-MW-05D-0511	Water	05/17/11 13:30	05/18/11 09:33
680-68483-4	BSA-MW-05D-F(.2)-0511	Water	05/17/11 13:30	05/18/11 09:33
680-68483-5	BSA-MW-04D-0511	Water	05/17/11 09:45	05/18/11 09:33
680-68483-6	BSA-MW-04D-F(.2)-0511	Water	05/17/11 09:45	05/18/11 09:33
680-68483-7	CPA-MW-05D-0511	Water	05/17/11 11:30	05/18/11 09:33
680-68483-8	CPA-MW-05D-F(.2)-0511	Water	05/17/11 11:30	05/18/11 09:33
680-68483-9	Trip Blank 31-0511	Water	05/17/11 00:00	05/18/11 09:33
680-68518-1	CPA-MW-03D-0511	Water	05/18/11 12:45	05/19/11 09:15
680-68518-2	CPA-MW-03D-F(.2)-0511	Water	05/18/11 12:45	05/19/11 09:15
680-68518-3	BSA-MW-02D-0511	Water	05/18/11 10:40	05/19/11 09:15
680-68518-4	BSA-MW-02D-F(.2)-0511	Water	05/18/11 10:40	05/19/11 09:15
680-68518-5	BSA-MW-03D-0511	Water	05/18/11 09:40	05/19/11 09:15
680-68518-6	BSA-MW-03D-F(.2)-0511	Water	05/18/11 09:40	05/19/11 09:15
680-68518-7	BSA-MW-03D-0511-EB	Water	05/18/11 09:40	05/19/11 09:15
680-68518-8	BSA-MW-01S-0511	Water	05/18/11 08:20	05/19/11 09:15
680-68518-9	BSA-MW-01S-F(.2)-0511	Water	05/18/11 08:20	05/19/11 09:15
680-68518-10	Trip Blank #2-0511	Water	05/18/11 00:00	05/19/11 09:15
680-68580-1	CPA-MW-01D-0511	Water	05/19/11 08:10	05/20/11 09:37
680-68580-2	CPA-MW-01D-F(.2)-0511	Water	05/19/11 08:10	05/20/11 09:37
680-68580-3	CPA-MW-02D-0511	Water	05/19/11 09:15	05/20/11 09:37
680-68580-4	CPA-MW-02D-F(.2)-0511	Water	05/19/11 09:15	05/20/11 09:37
680-68580-5	CPA-MW-02D-0511-AD	Water	05/19/11 09:15	05/20/11 09:37
680-68580-6	Trip Blank #3-0511	Water	05/19/11 00:00	05/20/11 09:37



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Method Summary

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
RSK-175	Dissolved Gases (GC)	RSK	TAL SAV
6010B	Metals (ICP)	SW846	TAL SAV
310.1	Alkalinity	MCAWW	TAL SAV
325.2	Chloride	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV
375.4	Sulfate	MCAWW	TAL SAV
415.1	TOC	MCAWW	TAL SAV
415.1	DOC	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Definitions/Glossary

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

7/27/14
AR

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-04D-0511

Lab Sample ID: 680-68483-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	57		10		ug/L	10		8260B	Total/NA
Chlorobenzene	290		10		ug/L	10		8260B	Total/NA
Ethane	8.5		1.1		ug/L	1		RSK-175	Total/NA
Methane	4800		0.58		ug/L	1		RSK-175	Total/NA
Iron	11		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.27	"J"	0.010		mg/L	1		6010B	Total Recovera
Chloride	290		10		mg/L	10		325.2	Total/NA
Total Organic Carbon	5.8		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	710		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	42		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: CPA-MW-04D-F(.2)-0511

Lab Sample ID: 680-68483-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	10		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.34	"J"	0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	6.0		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: BSA-MW-05D-0511

Lab Sample ID: 680-68483-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	13		1.0		ug/L	1		8260B	Total/NA
Methane	1900		0.58		ug/L	1		RSK-175	Total/NA
Iron	24		0.050		mg/L	1		6010B	Total Recovera
Manganese	1.6		0.010		mg/L	1		6010B	Total Recovera
Chloride	110		2.0		mg/L	2		325.2	Total/NA
Nitrate as N	0.091		0.050		mg/L	1		353.2	Total/NA
Sulfate	44		10		mg/L	2		375.4	Total/NA
Total Organic Carbon	5.5		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	710		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	55		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: BSA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	20		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	1.4		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	5.7		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: BSA-MW-04D-0511

Lab Sample ID: 680-68483-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	21		20		ug/L	20		8260B	Total/NA
Chlorobenzene	2600		20		ug/L	20		8260B	Total/NA
1,4-Dichlorobenzene	79		20		ug/L	20		8260B	Total/NA
Ethane	2.4		1.1		ug/L	1		RSK-175	Total/NA
Methane	70		0.58		ug/L	1		RSK-175	Total/NA
Iron	8.3		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.62		0.010		mg/L	1		6010B	Total Recovera
Chloride	130		2.0		mg/L	2		325.2	Total/NA
Sulfate	64		10		mg/L	2		375.4	Total/NA

TestAmerica Savannah

7/25/14
AC

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-04D-0511 (Continued)

Lab Sample ID: 680-68483-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	5.6		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	570		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	34		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: BSA-MW-04D-F(.2)-0511

Lab Sample ID: 680-68483-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	8.5		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.66		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	5.7		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: CPA-MW-05D-0511

Lab Sample ID: 680-68483-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	1200		20		ug/L	20		8260B	Total/NA
Ethane	1.3		1.1		ug/L	1		RSK-175	Total/NA
Methane	10		0.58		ug/L	1		RSK-175	Total/NA
Iron	52		0.050		mg/L	1		6010B	Total Recovera
Manganese	1.5		0.010		mg/L	1		6010B	Total Recovera
Chloride	340		10		mg/L	10		325.2	Total/NA
Sulfate	930		250		mg/L	50		375.4	Total/NA
Total Organic Carbon	4.2		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	370		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	110		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: CPA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	54		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	1.5		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	4.2		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: Trip Blank 31-0511

Lab Sample ID: 680-68483-9

No Detections.

Client Sample ID: CPA-MW-03D-0511

Lab Sample ID: 680-68518-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.3		5.0		ug/L	5		8260B	Total/NA
Chlorobenzene	630		5.0		ug/L	5		8260B	Total/NA
Ethane	5.8		1.1		ug/L	1		RSK-175	Total/NA
Methane	2300		0.58		ug/L	1		RSK-175	Total/NA
Iron	12		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.59		0.010		mg/L	1		6010B	Total Recovera
Chloride	110		2.0		mg/L	2		325.2	Total/NA
Sulfate	48		10		mg/L	2		375.4	Total/NA
Total Organic Carbon	10		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	490		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	28		5.0		mg/L	1		310.1	Total/NA

*7/27/14
Ae*

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	10		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.56		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	9.8		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: BSA-MW-02D-0511

Lab Sample ID: 680-68518-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	190000		2000		ug/L	2000		8260B	Total/NA
Ethane	16		1.1		ug/L	1		RSK-175	Total/NA
Methane	13000		0.58		ug/L	1		RSK-175	Total/NA
Iron	4.5		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.62		0.010		mg/L	1		6010B	Total Recovera
Chloride	98		2.0		mg/L	2		325.2	Total/NA
Total Organic Carbon	5.2		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	610		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	42		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: BSA-MW-02D-F(.2)-0511

Lab Sample ID: 680-68518-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	3.7		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.59		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	6.0		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: BSA-MW-03D-0511

Lab Sample ID: 680-68518-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	65		10		ug/L	10		8260B	Total/NA
Chlorobenzene	1300		10		ug/L	10		8260B	Total/NA
1,2-Dichlorobenzene	17		10		ug/L	10		8260B	Total/NA
1,3-Dichlorobenzene	16		10		ug/L	10		8260B	Total/NA
1,4-Dichlorobenzene	460		10		ug/L	10		8260B	Total/NA
Ethane	1.1		1.1		ug/L	1		RSK-175	Total/NA
Ethylene	1.7		1.0		ug/L	1		RSK-175	Total/NA
Methane	230		0.58		ug/L	1		RSK-175	Total/NA
Iron	11		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.55		0.010		mg/L	1		6010B	Total Recovera
Chloride	78		1.0		mg/L	1		325.2	Total/NA
Sulfate	200		50		mg/L	10		375.4	Total/NA
Total Organic Carbon	3.7		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	430		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	24		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: BSA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	8.4		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.50		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	4.1	"J"	1.0		mg/L	1		415.1	Dissolved

*7/27/11
AC*

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-03D-0511-EB

Lab Sample ID: 680-68518-7

No Detections.

Client Sample ID: BSA-MW-01S-0511

Lab Sample ID: 680-68518-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	630000		5000		ug/L	5000		8260B	Total/NA
Methane	6800		0.58		ug/L	1		RSK-175	Total/NA
Iron	5.2		0.050		mg/L	1		6010B	Total Recovers
Manganese	0.59		0.010		mg/L	1		6010B	Total Recovers
Chloride	190		2.0		mg/L	2		325.2	Total/NA
Total Organic Carbon	7.0		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	720		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	31		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: BSA-MW-01S-F(.2)-0511

Lab Sample ID: 680-68518-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	2.6		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.56		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	6.8		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: Trip Blank #2-0511

Lab Sample ID: 680-68518-10

No Detections.

Client Sample ID: CPA-MW-01D-0511

Lab Sample ID: 680-68580-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7900		200		ug/L	200		8260B	Total/NA
Chlorobenzene	20000		200		ug/L	200		8260B	Total/NA
1,2-Dichlorobenzene	19000		200		ug/L	200		8260B	Total/NA
1,3-Dichlorobenzene	1600		200		ug/L	200		8260B	Total/NA
1,4-Dichlorobenzene	12000		200		ug/L	200		8260B	Total/NA
Ethane	37		1.1		ug/L	1		RSK-175	Total/NA
Methane	15000		0.58		ug/L	1		RSK-175	Total/NA
Iron	0.93		0.050		mg/L	1		6010B	Total Recovers
Manganese	0.058		0.010		mg/L	1		6010B	Total Recovers
Chloride	120		2.0		mg/L	2		325.2	Total/NA
Sulfate	13		5.0		mg/L	1		375.4	Total/NA
Total Organic Carbon	12		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	880		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: CPA-MW-01D-F(.2)-0511

Lab Sample ID: 680-68580-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	0.65		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.051		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	10		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: CPA-MW-02D-0511

Lab Sample ID: 680-68580-3

TestAmerica Savannah

*7/25/11
AK*

Detection Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-02D-0511 (Continued)

Lab Sample ID: 680-68580-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	370		200		ug/L	200		8260B	Total/NA
Chlorobenzene	25000		200		ug/L	200		8260B	Total/NA
1,4-Dichlorobenzene	5300		200		ug/L	200		8260B	Total/NA
Ethane	5.3		1.1		ug/L	1		RSK-175	Total/NA
Methane	3200		0.58		ug/L	1		RSK-175	Total/NA
Iron	7.3		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.36		0.010		mg/L	1		6010B	Total Recovera
Chloride	80		1.0		mg/L	1		325.2	Total/NA
Total Organic Carbon	12		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	510		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	24		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: CPA-MW-02D-F(.2)-0511

Lab Sample ID: 680-68580-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	5.3		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.32		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	12		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: CPA-MW-02D-0511

Lab Sample ID: 680-68580-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	360		200		ug/L	200		8260B	Total/NA
Chlorobenzene	25000		200		ug/L	200		8260B	Total/NA
1,4-Dichlorobenzene	5200		200		ug/L	200		8260B	Total/NA

Client Sample ID: Trip Blank #3-0511

Lab Sample ID: 680-68580-6

No Detections.

*7/25/11
AE*

Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-04D-0511

Lab Sample ID: 680-68483-1

Date Collected: 05/17/11 14:30

Matrix: Water

Date Received: 05/18/11 09:33

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	57		10		ug/L			05/28/11 18:42	10
Chlorobenzene	290		10		ug/L			05/28/11 18:42	10
1,2-Dichlorobenzene	10	U	10		ug/L			05/28/11 18:42	10
1,3-Dichlorobenzene	10	U	10		ug/L			05/28/11 18:42	10
1,4-Dichlorobenzene	10	U	10		ug/L			05/28/11 18:42	10
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130					05/28/11 18:42	10
Dibromofluoromethane	110		70 - 130					05/28/11 18:42	10
Toluene-d8 (Surr)	102		70 - 130					05/28/11 18:42	10

Method: RSK-175 - Dissolved Gases (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	8.5		1.1		ug/L			05/19/11 16:21	1
Ethylene	1.0	U	1.0		ug/L			05/19/11 16:21	1
Methane	4800		0.58		ug/L			05/19/11 16:21	1

Method: 6010B - Metals (ICP) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11		0.050		mg/L		05/18/11 17:08	05/20/11 21:22	1
Manganese	0.27		0.010		mg/L		05/18/11 17:08	05/20/11 21:22	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	290		10		mg/L			06/03/11 12:33	10
Nitrate as N	0.050	U	0.050		mg/L			05/18/11 15:58	1
Sulfate	5.0	U	5.0		mg/L			06/08/11 09:44	1
Total Organic Carbon	5.8		1.0		mg/L			06/08/11 09:46	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	710		5.0		mg/L			05/19/11 01:48	1
Carbon Dioxide, Free	42		5.0		mg/L			05/19/11 01:48	1

7/21/11
 AB

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-04D-F(.2)-0511

Lab Sample ID: 680-68483-2

Date Collected: 05/17/11 14:30

Matrix: Water

Date Received: 05/18/11 09:33

Method: 6010B - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	10		0.050		mg/L		05/18/11 17:08	05/20/11 21:27	1
Manganese, Dissolved	0.34		0.010		mg/L		05/18/11 17:08	05/20/11 21:27	1

General Chemistry - Dissolved									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	6.0		1.0		mg/L			06/08/11 07:54	1

8

7/25/14
AK

Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: BSA-MW-05D-0511

Lab Sample ID: 680-68483-3

Date Collected: 05/17/11 13:30

Matrix: Water

Date Received: 05/18/11 09:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			05/28/11 15:45	1
Chlorobenzene	13		1.0		ug/L			05/28/11 15:45	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 15:45	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 15:45	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 15:45	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		70 - 130					05/28/11 15:45	1
Dibromofluoromethane	111		70 - 130					05/28/11 15:45	1
Toluene-d8 (Surr)	102		70 - 130					05/28/11 15:45	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			05/19/11 16:34	1
Ethylene	1.0	U	1.0		ug/L			05/19/11 16:34	1
Methane	1900		0.58		ug/L			05/19/11 16:34	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	24		0.050		mg/L		05/18/11 17:08	05/20/11 21:31	1
Manganese	1.6		0.010		mg/L		05/18/11 17:08	05/20/11 21:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		2.0		mg/L			06/03/11 12:41	2
Nitrate as N	0.091		0.050		mg/L			05/18/11 16:01	1
Sulfate	44		10		mg/L			06/08/11 10:01	2
Total Organic Carbon	5.5		1.0		mg/L			06/08/11 10:35	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	710		5.0		mg/L			05/19/11 02:00	1
Carbon Dioxide, Free	55		5.0		mg/L			05/19/11 02:00	1

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7/25/11
AC

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-4

Date Collected: 05/17/11 13:30

Matrix: Water

Date Received: 05/18/11 09:33

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	20		0.050		mg/L		05/18/11 17:08	05/20/11 21:35	1
Manganese, Dissolved	1.4		0.010		mg/L		05/18/11 17:08	05/20/11 21:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	5.7		1.0		mg/L			06/08/11 07:54	1

8

7/25/14
AL

Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: BSA-MW-04D-0511

Lab Sample ID: 680-68483-5

Date Collected: 05/17/11 09:45

Matrix: Water

Date Received: 05/18/11 09:33

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	21		20		ug/L			05/28/11 19:12	20
Chlorobenzene	2600		20		ug/L			05/28/11 19:12	20
1,2-Dichlorobenzene	20	U	20		ug/L			05/28/11 19:12	20
1,3-Dichlorobenzene	20	U	20		ug/L			05/28/11 19:12	20
1,4-Dichlorobenzene	79		20		ug/L			05/28/11 19:12	20
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130					05/28/11 19:12	20
Dibromofluoromethane	109		70 - 130					05/28/11 19:12	20
Toluene-d8 (Surr)	104		70 - 130					05/28/11 19:12	20

Method: RSK-175 - Dissolved Gases (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.4		1.1		ug/L			05/19/11 16:47	1
Ethylene	1.0	U	1.0		ug/L			05/19/11 16:47	1
Methane	70		0.58		ug/L			05/19/11 16:47	1

Method: 6010B - Metals (ICP) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8.3		0.050		mg/L		05/18/11 17:08	05/20/11 21:40	1
Manganese	0.62		0.010		mg/L		05/18/11 17:08	05/20/11 21:40	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		2.0		mg/L			06/03/11 12:41	2
Nitrate as N	0.050	U	0.050		mg/L			05/18/11 16:03	1
Sulfate	64		10		mg/L			06/08/11 10:24	2
Total Organic Carbon	5.6		1.0		mg/L			06/08/11 10:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	570		5.0		mg/L			05/19/11 02:10	1
Carbon Dioxide, Free	34		5.0		mg/L			05/19/11 02:10	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-04D-F(.2)-0511

Lab Sample ID: 680-68483-6

Date Collected: 05/17/11 09:45

Matrix: Water

Date Received: 05/18/11 09:33

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	8.5		0.050		mg/L		05/18/11 17:08	05/20/11 21:44	1
Manganese, Dissolved	0.66		0.010		mg/L		05/18/11 17:08	05/20/11 21:44	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	5.7		1.0		mg/L			06/08/11 07:54	1

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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-05D-0511

Lab Sample ID: 680-68483-7

Date Collected: 05/17/11 11:30

Matrix: Water

Date Received: 05/18/11 09:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	20	U	20		ug/L			05/28/11 19:41	20
Chlorobenzene	1200		20		ug/L			05/28/11 19:41	20
1,2-Dichlorobenzene	20	U	20		ug/L			05/28/11 19:41	20
1,3-Dichlorobenzene	20	U	20		ug/L			05/28/11 19:41	20
1,4-Dichlorobenzene	20	U	20		ug/L			05/28/11 19:41	20
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130					05/28/11 19:41	20
Dibromofluoromethane	107		70 - 130					05/28/11 19:41	20
Toluene-d8 (Surr)	100		70 - 130					05/28/11 19:41	20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.3		1.1		ug/L			05/19/11 17:00	1
Ethylene	1.0	U	1.0		ug/L			05/19/11 17:00	1
Methane	10		0.58		ug/L			05/19/11 17:00	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	52		0.050		mg/L		05/18/11 17:09	05/20/11 21:57	1
Manganese	1.5		0.010		mg/L		05/18/11 17:09	05/20/11 21:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	340		10		mg/L			06/03/11 12:33	10
Nitrate as N	0.050	U	0.050		mg/L			05/18/11 16:04	1
Sulfate	930		250		mg/L			06/08/11 10:25	50
Total Organic Carbon	4.2		1.0		mg/L			06/08/11 11:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	370		5.0		mg/L			05/19/11 02:18	1
Carbon Dioxide, Free	110		5.0		mg/L			05/19/11 02:18	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-8

Date Collected: 05/17/11 11:30

Matrix: Water

Date Received: 05/18/11 09:33

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	54		0.050		mg/L		05/18/11 17:09	05/20/11 22:01	1
Manganese, Dissolved	1.5		0.010		mg/L		05/18/11 17:09	05/20/11 22:01	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	4.2		1.0		mg/L			06/08/11 07:54	1



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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: Trip Blank 31-0511

Lab Sample ID: 680-68483-9

Date Collected: 05/17/11 00:00

Matrix: Water

Date Received: 05/18/11 09:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			05/28/11 13:18	1
Chlorobenzene	1.0	U	1.0		ug/L			05/28/11 13:18	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 13:18	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 13:18	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 13:18	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130		05/28/11 13:18	1
Dibromofluoromethane	111		70 - 130		05/28/11 13:18	1
Toluene-d8 (Surr)	104		70 - 130		05/28/11 13:18	1



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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-03D-0511

Lab Sample ID: 680-68518-1

Date Collected: 05/18/11 12:45

Matrix: Water

Date Received: 05/19/11 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.3		5.0		ug/L			06/01/11 06:34	5
Chlorobenzene	630		5.0		ug/L			06/01/11 06:34	5
1,2-Dichlorobenzene	5.0	U	5.0		ug/L			06/01/11 06:34	5
1,3-Dichlorobenzene	5.0	U	5.0		ug/L			06/01/11 06:34	5
1,4-Dichlorobenzene	5.0	U	5.0		ug/L			06/01/11 06:34	5
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		70 - 130					06/01/11 06:34	5
Dibromofluoromethane	107		70 - 130					06/01/11 06:34	5
Toluene-d8 (Surr)	96		70 - 130					06/01/11 06:34	5

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	5.8		1.1		ug/L			05/25/11 13:23	1
Ethylene	1.0	U	1.0		ug/L			05/25/11 13:23	1
Methane	2300		0.58		ug/L			05/25/11 13:23	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	12		0.050		mg/L		05/20/11 13:18	05/25/11 03:41	1
Manganese	0.59		0.010		mg/L		05/20/11 13:18	05/25/11 03:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		2.0		mg/L			06/08/11 12:37	2
Nitrate as N	0.050	U	0.050		mg/L			05/19/11 15:47	1
Sulfate	48		10		mg/L			06/08/11 10:04	2
Total Organic Carbon	10		1.0		mg/L			06/08/11 11:19	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	490		5.0		mg/L			05/22/11 13:01	1
Carbon Dioxide, Free	28		5.0		mg/L			05/22/11 13:01	1

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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-2

Date Collected: 05/18/11 12:45

Matrix: Water

Date Received: 05/19/11 09:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	10		0.050		mg/L		05/20/11 13:18	05/25/11 04:07	1
Manganese, Dissolved	0.56		0.010		mg/L		05/20/11 13:18	05/25/11 04:07	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	9.8		1.0		mg/L			06/08/11 07:54	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-02D-0511

Lab Sample ID: 680-68518-3

Date Collected: 05/18/11 10:40

Matrix: Water

Date Received: 05/19/11 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	190000		2000		ug/L			06/01/11 19:53	2000
Chlorobenzene	2000	U	2000		ug/L			06/01/11 19:53	2000
1,2-Dichlorobenzene	2000	U	2000		ug/L			06/01/11 19:53	2000
1,3-Dichlorobenzene	2000	U	2000		ug/L			06/01/11 19:53	2000
1,4-Dichlorobenzene	2000	U	2000		ug/L			06/01/11 19:53	2000

Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130					06/01/11 19:53	2000
Dibromofluoromethane	100		70 - 130					06/01/11 19:53	2000
Toluene-d8 (Surr)	99		70 - 130					06/01/11 19:53	2000

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	16		1.1		ug/L			05/25/11 13:35	1
Ethylene	1.0	U	1.0		ug/L			05/25/11 13:35	1
Methane	13000		0.58		ug/L			05/25/11 13:35	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4.5		0.050		mg/L		05/20/11 13:18	05/25/11 04:13	1
Manganese	0.62		0.010		mg/L		05/20/11 13:18	05/25/11 04:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98		2.0		mg/L			06/08/11 12:37	2
Nitrate as N	0.050	U	0.050		mg/L			05/19/11 15:22	1
Sulfate	5.0	U	5.0		mg/L			06/08/11 09:48	1
Total Organic Carbon	5.2		1.0		mg/L			06/08/11 11:33	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	610		5.0		mg/L			05/22/11 13:12	1
Carbon Dioxide, Free	42		5.0		mg/L			05/22/11 13:12	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-02D-F(.2)-0511

Lab Sample ID: 680-68518-4

Date Collected: 05/18/11 10:40

Matrix: Water

Date Received: 05/19/11 09:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	3.7		0.050		mg/L		05/20/11 13:18	05/25/11 04:28	1
Manganese, Dissolved	0.59		0.010		mg/L		05/20/11 13:18	05/25/11 04:28	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	6.0		1.0		mg/L			06/08/11 07:54	1

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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: BSA-MW-03D-0511

Lab Sample ID: 680-68518-5

Date Collected: 05/18/11 09:40

Matrix: Water

Date Received: 05/19/11 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	65		10		ug/L			06/01/11 05:52	10
Chlorobenzene	1300		10		ug/L			06/01/11 05:52	10
1,2-Dichlorobenzene	17		10		ug/L			06/01/11 05:52	10
1,3-Dichlorobenzene	16		10		ug/L			06/01/11 05:52	10
1,4-Dichlorobenzene	460		10		ug/L			06/01/11 05:52	10
Surrogate									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		70 - 130					06/01/11 05:52	10
Dibromofluoromethane	107		70 - 130					06/01/11 05:52	10
Toluene-d8 (Surr)	96		70 - 130					06/01/11 05:52	10

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1		1.1		ug/L			05/25/11 13:48	1
Ethylene	1.7		1.0		ug/L			05/25/11 13:48	1
Methane	230		0.58		ug/L			05/25/11 13:48	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11		0.050		mg/L		05/20/11 13:18	05/25/11 04:34	1
Manganese	0.55		0.010		mg/L		05/20/11 13:18	05/25/11 04:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78		1.0		mg/L			06/08/11 11:48	1
Nitrate as N	0.050	U	0.050		mg/L			05/19/11 15:23	1
Sulfate	200		50		mg/L			06/08/11 10:24	10
Total Organic Carbon	3.7		1.0		mg/L			06/08/11 11:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	430		5.0		mg/L			05/22/11 13:21	1
Carbon Dioxide, Free	24		5.0		mg/L			05/22/11 13:21	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-6

Date Collected: 05/18/11 09:40

Matrix: Water

Date Received: 05/19/11 09:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	8.4		0.050		mg/L		05/20/11 13:18	05/25/11 04:39	1
Manganese, Dissolved	0.50		0.010		mg/L		05/20/11 13:18	05/25/11 04:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	4.1		1.0		mg/L			06/08/11 07:54	1

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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: BSA-MW-03D-0511-EB

Lab Sample ID: 680-68518-7

Date Collected: 05/18/11 09:40

Matrix: Water

Date Received: 05/19/11 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/01/11 04:42	1
Chlorobenzene	1.0	U	1.0		ug/L			06/01/11 04:42	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 04:42	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 04:42	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 04:42	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		70 - 130		06/01/11 04:42	1
Dibromofluoromethane	108		70 - 130		06/01/11 04:42	1
Toluene-d8 (Surr)	99		70 - 130		06/01/11 04:42	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-01S-0511

Lab Sample ID: 680-68518-8

Date Collected: 05/18/11 08:20

Matrix: Water

Date Received: 05/19/11 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	630000		5000		ug/L			06/01/11 05:31	5000
Chlorobenzene	5000	U	5000		ug/L			06/01/11 05:31	5000
1,2-Dichlorobenzene	5000	U	5000		ug/L			06/01/11 05:31	5000
1,3-Dichlorobenzene	5000	U	5000		ug/L			06/01/11 05:31	5000
1,4-Dichlorobenzene	5000	U	5000		ug/L			06/01/11 05:31	5000
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		70 - 130					06/01/11 05:31	5000
Dibromofluoromethane	107		70 - 130					06/01/11 05:31	5000
Toluene-d8 (Surr)	94		70 - 130					06/01/11 05:31	5000

Method: RSK-175 - Dissolved Gases (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			05/25/11 14:01	1
Ethylene	1.0	U	1.0		ug/L			05/25/11 14:01	1
Methane	6800		0.58		ug/L			05/25/11 14:01	1

Method: 6010B - Metals (ICP) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	5.2		0.050		mg/L		05/20/11 13:18	05/25/11 04:44	1
Manganese	0.59		0.010		mg/L		05/20/11 13:18	05/25/11 04:44	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		2.0		mg/L			06/08/11 12:37	2
Nitrate as N	0.050	U	0.050		mg/L			05/19/11 15:24	1
Sulfate	5.0	U	5.0		mg/L			06/08/11 09:49	1
Total Organic Carbon	7.0		1.0		mg/L			06/08/11 12:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	720		5.0		mg/L			05/22/11 13:32	1
Carbon Dioxide, Free	31		5.0		mg/L			05/22/11 13:32	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-01S-F(.2)-0511

Lab Sample ID: 680-68518-9

Date Collected: 05/18/11 08:20

Matrix: Water

Date Received: 05/19/11 09:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	2.6		0.050		mg/L		05/20/11 13:18	05/25/11 04:49	1
Manganese, Dissolved	0.56		0.010		mg/L		05/20/11 13:18	05/25/11 04:49	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	6.8		1.0		mg/L			06/08/11 07:54	1

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7/15/14
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Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: Trip Blank #2-0511

Lab Sample ID: 680-68518-10

Date Collected: 05/18/11 00:00

Matrix: Water

Date Received: 05/19/11 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			05/30/11 11:39	1
Chlorobenzene	1.0	U	1.0		ug/L			05/30/11 11:39	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			05/30/11 11:39	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			05/30/11 11:39	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			05/30/11 11:39	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130					05/30/11 11:39	1
Dibromofluoromethane	101		70 - 130					05/30/11 11:39	1
Toluene-d8 (Surr)	105		70 - 130					05/30/11 11:39	1

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AG*

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-01D-0511

Lab Sample ID: 680-68580-1

Date Collected: 05/19/11 08:10

Matrix: Water

Date Received: 05/20/11 09:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7900		200		ug/L			06/01/11 17:29	200
Chlorobenzene	20000		200		ug/L			06/01/11 17:29	200
1,2-Dichlorobenzene	19000		200		ug/L			06/01/11 17:29	200
1,3-Dichlorobenzene	1600		200		ug/L			06/01/11 17:29	200
1,4-Dichlorobenzene	12000		200		ug/L			06/01/11 17:29	200
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		70 - 130					06/01/11 17:29	200
Dibromofluoromethane	107		70 - 130					06/01/11 17:29	200
Toluene-d8 (Surr)	103		70 - 130					06/01/11 17:29	200

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	37		1.1		ug/L			05/26/11 12:48	1
Ethylene	1.0	U	1.0		ug/L			05/26/11 12:48	1
Methane	15000		0.58		ug/L			05/26/11 12:48	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.93		0.050		mg/L		05/25/11 09:34	05/26/11 00:56	1
Manganese	0.058		0.010		mg/L		05/25/11 09:34	05/26/11 00:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		2.0		mg/L			06/14/11 11:25	2
Nitrate as N	0.050	U	0.050		mg/L			05/20/11 16:03	1
Sulfate	13		5.0		mg/L			06/14/11 09:49	1
Total Organic Carbon	12		1.0		mg/L			06/14/11 16:06	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	880		5.0		mg/L			05/22/11 13:45	1
Carbon Dioxide, Free	5.0	U	5.0		mg/L			05/22/11 13:45	1

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AG

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-01D-F(.2)-0511

Lab Sample ID: 680-68580-2

Date Collected: 05/19/11 08:10

Matrix: Water

Date Received: 05/20/11 09:37

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.65		0.050		mg/L		05/25/11 09:34	05/26/11 01:01	1
Manganese, Dissolved	0.051		0.010		mg/L		05/25/11 09:34	05/26/11 01:01	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	10		1.0		mg/L			06/14/11 13:04	1

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AG

Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-02D-0511

Lab Sample ID: 680-68580-3

Date Collected: 05/19/11 09:15

Matrix: Water

Date Received: 05/20/11 09:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	370		200		ug/L			06/01/11 17:59	200
Chlorobenzene	25000		200		ug/L			06/01/11 17:59	200
1,2-Dichlorobenzene	200	U	200		ug/L			06/01/11 17:59	200
1,3-Dichlorobenzene	200	U	200		ug/L			06/01/11 17:59	200
1,4-Dichlorobenzene	5300		200		ug/L			06/01/11 17:59	200
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		70 - 130					06/01/11 17:59	200
Dibromofluoromethane	105		70 - 130					06/01/11 17:59	200
Toluene-d8 (Surr)	103		70 - 130					06/01/11 17:59	200

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	5.3		1.1		ug/L			05/26/11 13:01	1
Ethylene	1.0	U	1.0		ug/L			05/26/11 13:01	1
Methane	3200		0.58		ug/L			05/26/11 13:01	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.3		0.050		mg/L		05/25/11 09:34	05/26/11 01:06	1
Manganese	0.36		0.010		mg/L		05/25/11 09:34	05/26/11 01:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	80		1.0		mg/L			06/14/11 11:12	1
Nitrate as N	0.050	U	0.050		mg/L			05/20/11 16:07	1
Sulfate	50	U	50		mg/L			06/14/11 10:18	10
Total Organic Carbon	12		1.0		mg/L			06/14/11 16:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	510		5.0		mg/L			05/22/11 13:54	1
Carbon Dioxide, Free	24		5.0		mg/L			05/22/11 13:54	1

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7/25/11
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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-02D-F(.2)-0511

Lab Sample ID: 680-68580-4

Date Collected: 05/19/11 09:15

Matrix: Water

Date Received: 05/20/11 09:37

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	5.3		0.050		mg/L		05/25/11 09:34	05/26/11 01:11	1
Manganese, Dissolved	0.32		0.010		mg/L		05/25/11 09:34	05/26/11 01:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	12		1.0		mg/L			06/14/11 13:04	1

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AK*

Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: CPA-MW-02D-0511-AD

Lab Sample ID: 680-68580-5

Date Collected: 05/19/11 09:15

Matrix: Water

Date Received: 05/20/11 09:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	360		200		ug/L			06/01/11 18:29	200
Chlorobenzene	25000		200		ug/L			06/01/11 18:29	200
1,2-Dichlorobenzene	200	U	200		ug/L			06/01/11 18:29	200
1,3-Dichlorobenzene	200	U	200		ug/L			06/01/11 18:29	200
1,4-Dichlorobenzene	5200		200		ug/L			06/01/11 18:29	200
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		70 - 130					06/01/11 18:29	200
Dibromofluoromethane	107		70 - 130					06/01/11 18:29	200
Toluene-d8 (Surr)	103		70 - 130					06/01/11 18:29	200

8

ALG
8/14/11

Client Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: Trip Blank #3-0511

Lab Sample ID: 680-68580-6

Date Collected: 05/19/11 00:00

Matrix: Water

Date Received: 05/20/11 09:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/01/11 17:00	1
Chlorobenzene	1.0	U	1.0		ug/L			06/01/11 17:00	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 17:00	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 17:00	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 17:00	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130					06/01/11 17:00	1
Dibromofluoromethane	107		70 - 130					06/01/11 17:00	1
Toluene-d8 (Surr)	101		70 - 130					06/01/11 17:00	1

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*7/5/11
ALC*

Surrogate Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (70-130)	DBFM (70-130)	TOL (70-130)
680-68483-1	CPA-MW-04D-0511	100	110	102
680-68483-3	BSA-MW-05D-0511	101	111	102
680-68483-5	BSA-MW-04D-0511	99	109	104
680-68483-7	CPA-MW-05D-0511	100	107	100
680-68483-7 MS	CPA-MW-05D-0511	100	107	99
680-68483-7 MSD	CPA-MW-05D-0511	103	101	101
680-68483-9	Trip Blank 31-0511	99	111	104
680-68518-1	CPA-MW-03D-0511	108	107	96
680-68518-3	BSA-MW-02D-0511	95	100	99
680-68518-5	BSA-MW-03D-0511	106	107	96
680-68518-7	BSA-MW-03D-0511-EB	101	108	99
680-68518-8	BSA-MW-01S-0511	106	107	94
680-68518-10	Trip Blank #2-0511	100	101	105
680-68580-1	CPA-MW-01D-0511	106	107	103
680-68580-3	CPA-MW-02D-0511	101	105	103
680-68580-5	CPA-MW-02D-0511-AD	102	107	103
680-68580-6	Trip Blank #3-0511	100	107	101
LCS 680-204387/17	Lab Control Sample	99	101	98
LCS 680-204476/4	Lab Control Sample	103	97	107
LCS 680-204526/15	Lab Control Sample	103	108	100
LCS 680-204538/22	Lab Control Sample	101	103	99
LCS 680-204549/8	Lab Control Sample	115	105	100
LCS 680-204594/12	Lab Control Sample	103	107	101
LCS 680-204602/19	Lab Control Sample	105	106	105
LCSD 680-204387/18	Lab Control Sample Dup	100	104	102
LCSD 680-204476/6	Lab Control Sample Dup	102	96	103
LCSD 680-204526/16	Lab Control Sample Dup	103	110	103
LCSD 680-204538/23	Lab Control Sample Dup	99	104	98
LCSD 680-204549/9	Lab Control Sample Dup	116	104	101
LCSD 680-204594/13	Lab Control Sample Dup	103	106	101
LCSD 680-204602/20	Lab Control Sample Dup	102	105	101
MB 680-204387/20	Method Blank	98	104	102
MB 680-204476/8	Method Blank	100	101	110
MB 680-204526/18	Method Blank	100	108	102
MB 680-204538/25	Method Blank	101	103	100
MB 680-204549/11	Method Blank	108	104	97
MB 680-204594/15	Method Blank	100	108	100
MB 680-204602/22	Method Blank	97	106	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)

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8/4/11*

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-204387/20				Client Sample ID: Method Blank					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 204387									
Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	1.0	U	1.0		ug/L			05/28/11 12:49	1
Chlorobenzene	1.0	U	1.0		ug/L			05/28/11 12:49	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 12:49	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 12:49	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			05/28/11 12:49	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
	% Recovery	Qualifier							
4-Bromofluorobenzene	98		70 - 130				05/28/11 12:49	1	
Dibromofluoromethane	104		70 - 130				05/28/11 12:49	1	
Toluene-d8 (Surr)	102		70 - 130				05/28/11 12:49	1	

Lab Sample ID: LCS 680-204387/17				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 204387							
Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Benzene	50.0	48.5		ug/L		97	70 - 130
Chlorobenzene	50.0	50.2		ug/L		100	70 - 130
1,2-Dichlorobenzene	50.0	48.1		ug/L		96	70 - 130
1,3-Dichlorobenzene	50.0	48.4		ug/L		97	70 - 130
1,4-Dichlorobenzene	50.0	48.9		ug/L		98	70 - 130
Surrogate	LCS LCS		Limits			% Rec	Limits
	% Recovery	Qualifier					
4-Bromofluorobenzene	99		70 - 130				
Dibromofluoromethane	101		70 - 130				
Toluene-d8 (Surr)	98		70 - 130				

Lab Sample ID: LCSD 680-204387/18				Client Sample ID: Lab Control Sample Dup					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 204387									
Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	50.0	49.5		ug/L		99	70 - 130	2	30
Chlorobenzene	50.0	50.4		ug/L		101	70 - 130	0	30
1,2-Dichlorobenzene	50.0	50.4		ug/L		101	70 - 130	5	30
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	70 - 130	5	30
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130	4	30
Surrogate	LCSD LCSD		Limits			% Rec	Limits	RPD	Limit
	% Recovery	Qualifier							
4-Bromofluorobenzene	100		70 - 130						
Dibromofluoromethane	104		70 - 130						
Toluene-d8 (Surr)	102		70 - 130						

Lab Sample ID: 680-68483-7 MS				Client Sample ID: CPA-MW-05D-0511					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 204387									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	% Rec	% Rec. Limits
				Result	Qualifier				
Benzene	20	U	1000	1020		ug/L		102	70 - 130

TestAmerica Savannah

7/25/11
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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-68483-7 MS				Client Sample ID: CPA-MW-05D-0511						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204387										
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier					Limits
Chlorobenzene	1200		1000	2110		ug/L		92	70 - 130	
1,2-Dichlorobenzene	20	U	1000	990		ug/L		99	70 - 130	
1,3-Dichlorobenzene	20	U	1000	997		ug/L		100	70 - 130	
1,4-Dichlorobenzene	20	U	1000	1010		ug/L		101	70 - 130	
MS MS										
Surrogate	% Recovery	Qualifier	Limits							
4-Bromofluorobenzene	100		70 - 130							
Dibromofluoromethane	107		70 - 130							
Toluene-d8 (Surr)	99		70 - 130							

Lab Sample ID: MB 680-204476/8				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204476										
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier								
Benzene	1.0	U	1.0		ug/L			05/30/11 10:50	1	
Chlorobenzene	1.0	U	1.0		ug/L			05/30/11 10:50	1	
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			05/30/11 10:50	1	
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			05/30/11 10:50	1	
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			05/30/11 10:50	1	
MB MB										
Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
4-Bromofluorobenzene	100		70 - 130		05/30/11 10:50	1				
Dibromofluoromethane	101		70 - 130		05/30/11 10:50	1				
Toluene-d8 (Surr)	110		70 - 130		05/30/11 10:50	1				

Lab Sample ID: LCS 680-204476/4				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204476										
Analyte	Spike Added	LCS	LCS	Result	Qualifier	Unit	D	% Rec	% Rec.	
										Limits
Benzene	50.0	49.0		ug/L				98	70 - 130	
Chlorobenzene	50.0	48.1		ug/L				96	70 - 130	
1,2-Dichlorobenzene	50.0	52.6		ug/L				105	70 - 130	
1,3-Dichlorobenzene	50.0	52.4		ug/L				105	70 - 130	
1,4-Dichlorobenzene	50.0	51.2		ug/L				102	70 - 130	
LCS LCS										
Surrogate	% Recovery	Qualifier	Limits							
4-Bromofluorobenzene	103		70 - 130							
Dibromofluoromethane	97		70 - 130							
Toluene-d8 (Surr)	107		70 - 130							

Lab Sample ID: LCSD 680-204476/6				Client Sample ID: Lab Control Sample Dup						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204476										
Analyte	Spike Added	LCSD	LCSD	Result	Qualifier	Unit	D	% Rec	% Rec.	RPD
Benzene	50.0	47.6		ug/L				95	70 - 130	3 30
Chlorobenzene	50.0	47.4		ug/L				95	70 - 130	1 30

TestAmerica Savannah

7/5/14
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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-204476/6				Client Sample ID: Lab Control Sample Dup						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204476										
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit	
										1,2-Dichlorobenzene
1,3-Dichlorobenzene	50.0	53.3		ug/L		107	70 - 130	2	30	
1,4-Dichlorobenzene	50.0	51.6		ug/L		103	70 - 130	1	30	
LCSD LCSD										
Surrogate	% Recovery	Qualifier	Limits							
4-Bromofluorobenzene	102		70 - 130							
Dibromofluoromethane	96		70 - 130							
Toluene-d8 (Surr)	103		70 - 130							

Lab Sample ID: MB 680-204526/18				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204526										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
										Benzene
Chlorobenzene	1.0	U	1.0		ug/L		05/31/11 11:39	1		
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		05/31/11 11:39	1		
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		05/31/11 11:39	1		
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		05/31/11 11:39	1		
MB MB										
Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
4-Bromofluorobenzene	100		70 - 130		05/31/11 11:39	1				
Dibromofluoromethane	108		70 - 130		05/31/11 11:39	1				
Toluene-d8 (Surr)	102		70 - 130		05/31/11 11:39	1				

Lab Sample ID: LCS 680-204526/15				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204526										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit	
										Benzene
Chlorobenzene	50.0	51.2		ug/L		102	70 - 130			
1,2-Dichlorobenzene	50.0	51.2		ug/L		102	70 - 130			
1,3-Dichlorobenzene	50.0	51.1		ug/L		102	70 - 130			
1,4-Dichlorobenzene	50.0	52.2		ug/L		104	70 - 130			
LCS LCS										
Surrogate	% Recovery	Qualifier	Limits							
4-Bromofluorobenzene	103		70 - 130							
Dibromofluoromethane	108		70 - 130							
Toluene-d8 (Surr)	100		70 - 130							

Lab Sample ID: LCSD 680-204526/16				Client Sample ID: Lab Control Sample Dup						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204526										
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit	
										Benzene
Chlorobenzene	50.0	51.2		ug/L		102	70 - 130	0	30	
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	70 - 130	0	30	

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-204526/16

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 204526

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
1,3-Dichlorobenzene	50.0	51.9		ug/L		104	70 - 130	1	30	
1,4-Dichlorobenzene	50.0	52.9		ug/L		106	70 - 130	1	30	

Surrogate	LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	103		70 - 130
Dibromofluoromethane	110		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: 680-68483-7 MSD

Client Sample ID: CPA-MW-05D-0511

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 204526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	% Rec	% Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Benzene	20	U	1000	1030		ug/L		103	70 - 130	1	30	
Chlorobenzene	1200		1000	2230		ug/L		105	70 - 130	6	30	
1,2-Dichlorobenzene	20	U	1000	1020		ug/L		102	70 - 130	3	30	
1,3-Dichlorobenzene	20	U	1000	1030		ug/L		103	70 - 130	3	30	
1,4-Dichlorobenzene	20	U	1000	1040		ug/L		104	70 - 130	2	30	

Surrogate	MSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	103		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 680-204538/25

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 204538

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	1.0	U	1.0		ug/L		05/31/11 22:37	1	
Chlorobenzene	1.0	U	1.0		ug/L		05/31/11 22:37	1	
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		05/31/11 22:37	1	
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		05/31/11 22:37	1	
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		05/31/11 22:37	1	

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
4-Bromofluorobenzene	101		70 - 130		05/31/11 22:37	1
Dibromofluoromethane	103		70 - 130		05/31/11 22:37	1
Toluene-d8 (Surr)	100		70 - 130		05/31/11 22:37	1

Lab Sample ID: LCS 680-204538/22

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 204538

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	RPD
Benzene	50.0	50.9		ug/L		102	70 - 130	
Chlorobenzene	50.0	50.6		ug/L		101	70 - 130	
1,2-Dichlorobenzene	50.0	50.9		ug/L		102	70 - 130	
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	70 - 130	

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-204538/22
Matrix: Water
Analysis Batch: 204538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	70 - 130

Surrogate	LCS LCS		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	101		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 680-204538/23
Matrix: Water
Analysis Batch: 204538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	50.0	50.3		ug/L		101	70 - 130	1	30
Chlorobenzene	50.0	50.5		ug/L		101	70 - 130	0	30
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 130	2	30
1,3-Dichlorobenzene	50.0	50.5		ug/L		101	70 - 130	0	30
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130	0	30

Surrogate	LCSD LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	99		70 - 130
Dibromofluoromethane	104		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: MB 680-204549/11
Matrix: Water
Analysis Batch: 204549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	1.0	U	1.0		ug/L		06/01/11 00:40	1	
Chlorobenzene	1.0	U	1.0		ug/L		06/01/11 00:40	1	
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		06/01/11 00:40	1	
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		06/01/11 00:40	1	
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		06/01/11 00:40	1	

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
4-Bromofluorobenzene	108		70 - 130		06/01/11 00:40	1
Dibromofluoromethane	104		70 - 130		06/01/11 00:40	1
Toluene-d8 (Surr)	97		70 - 130		06/01/11 00:40	1

Lab Sample ID: LCS 680-204549/8
Matrix: Water
Analysis Batch: 204549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Benzene	50.0	49.9		ug/L		100	70 - 130
Chlorobenzene	50.0	55.8		ug/L		112	70 - 130
1,2-Dichlorobenzene	50.0	57.6		ug/L		115	70 - 130
1,3-Dichlorobenzene	50.0	59.7		ug/L		119	70 - 130
1,4-Dichlorobenzene	50.0	59.8		ug/L		120	70 - 130

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-204549/8 Matrix: Water Analysis Batch: 204549	Client Sample ID: Lab Control Sample Prep Type: Total/NA
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	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
4-Bromofluorobenzene	115		70 - 130
Dibromofluoromethane	105		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: LCSD 680-204549/9 Matrix: Water Analysis Batch: 204549	Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA
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	Spike	LCSD	LCSD							
Analyte	Added	Result	Qualifier	Unit	D	% Rec	% Rec.	Limits	RPD	RPD
Benzene	50.0	49.9		ug/L		100	100	70 - 130	0	30
Chlorobenzene	50.0	56.5		ug/L		113	113	70 - 130	1	30
1,2-Dichlorobenzene	50.0	57.1		ug/L		114	114	70 - 130	1	30
1,3-Dichlorobenzene	50.0	59.8		ug/L		120	120	70 - 130	0	30
1,4-Dichlorobenzene	50.0	60.2		ug/L		120	120	70 - 130	1	30

	LCSD	LCSD	
Surrogate	% Recovery	Qualifier	Limits
4-Bromofluorobenzene	116		70 - 130
Dibromofluoromethane	104		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 680-204594/15 Matrix: Water Analysis Batch: 204594	Client Sample ID: Method Blank Prep Type: Total/NA
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	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/01/11 12:17	1
Chlorobenzene	1.0	U	1.0		ug/L			06/01/11 12:17	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 12:17	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 12:17	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			06/01/11 12:17	1

	MB	MB	
Surrogate	% Recovery	Qualifier	Limits
4-Bromofluorobenzene	100		70 - 130
Dibromofluoromethane	108		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: LCS 680-204594/12 Matrix: Water Analysis Batch: 204594	Client Sample ID: Lab Control Sample Prep Type: Total/NA
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	Spike	LCS	LCS					
Analyte	Added	Result	Qualifier	Unit	D	% Rec	% Rec.	Limits
Benzene	50.0	49.4		ug/L		99	99	70 - 130
Chlorobenzene	50.0	51.3		ug/L		103	103	70 - 130
1,2-Dichlorobenzene	50.0	51.6		ug/L		103	103	70 - 130
1,3-Dichlorobenzene	50.0	52.2		ug/L		104	104	70 - 130
1,4-Dichlorobenzene	50.0	52.7		ug/L		105	105	70 - 130

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-204594/12
Matrix: Water
Analysis Batch: 204594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	103		70 - 130
Dibromofluoromethane	107		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 680-204594/13
Matrix: Water
Analysis Batch: 204594

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	RPD
Benzene	50.0	49.1		ug/L		98	70 - 130	1	30	
Chlorobenzene	50.0	50.5		ug/L		101	70 - 130	2	30	
1,2-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130	1	30	
1,3-Dichlorobenzene	50.0	51.9		ug/L		104	70 - 130	1	30	
1,4-Dichlorobenzene	50.0	52.5		ug/L		105	70 - 130	0	30	

Surrogate	LCSD LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	103		70 - 130
Dibromofluoromethane	106		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 680-204602/22
Matrix: Water
Analysis Batch: 204602

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	1.0	U	1.0		ug/L		06/01/11 12:44	1	
Chlorobenzene	1.0	U	1.0		ug/L		06/01/11 12:44	1	
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		06/01/11 12:44	1	
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		06/01/11 12:44	1	
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		06/01/11 12:44	1	

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
4-Bromofluorobenzene	97		70 - 130		06/01/11 12:44	1
Dibromofluoromethane	106		70 - 130		06/01/11 12:44	1
Toluene-d8 (Surr)	102		70 - 130		06/01/11 12:44	1

Lab Sample ID: LCS 680-204602/19
Matrix: Water
Analysis Batch: 204602

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	RPD
Benzene	50.0	52.6		ug/L		105	70 - 130	
Chlorobenzene	50.0	51.5		ug/L		103	70 - 130	
1,2-Dichlorobenzene	50.0	52.6		ug/L		105	70 - 130	
1,3-Dichlorobenzene	50.0	53.6		ug/L		107	70 - 130	
1,4-Dichlorobenzene	50.0	52.4		ug/L		105	70 - 130	

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QC Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-204602/19
 Matrix: Water
 Analysis Batch: 204602

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	105		70 - 130
Dibromofluoromethane	106		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: LCSD 680-204602/20
 Matrix: Water
 Analysis Batch: 204602

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
Benzene	50.0	50.6		ug/L		101	70 - 130	4	30	
Chlorobenzene	50.0	51.3		ug/L		103	70 - 130	0	30	
1,2-Dichlorobenzene	50.0	52.9		ug/L		106	70 - 130	1	30	
1,3-Dichlorobenzene	50.0	53.3		ug/L		107	70 - 130	1	30	
1,4-Dichlorobenzene	50.0	51.3		ug/L		103	70 - 130	2	30	

Surrogate	LCSD LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	102		70 - 130
Dibromofluoromethane	105		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-203469/6
 Matrix: Water
 Analysis Batch: 203469

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethane	1.1	U	1.1		ug/L		05/19/11 13:37	1	
Ethylene	1.0	U	1.0		ug/L		05/19/11 13:37	1	
Methane	0.58	U	0.58		ug/L		05/19/11 13:37	1	

Lab Sample ID: LCS 680-203469/4
 Matrix: Water
 Analysis Batch: 203469

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	RPD
Ethane	282	278		ug/L		99	75 - 125	
Ethylene	271	260		ug/L		96	75 - 125	
Methane	153	167		ug/L		109	75 - 125	

Lab Sample ID: LCSD 680-203469/5
 Matrix: Water
 Analysis Batch: 203469

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
Ethane	282	281		ug/L		100	75 - 125	1	30	
Ethylene	271	260		ug/L		96	75 - 125	0	30	
Methane	153	160		ug/L		104	75 - 125	5	30	

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QC Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 680-203470/5						Client Sample ID: Method Blank			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 203470									
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.58	U	0.58		ug/L			05/19/11 13:37	1

Lab Sample ID: LCS 680-203470/3						Client Sample ID: Lab Control Sample			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 203470									
Analyte			Spike	LCS	LCS			% Rec.	
			Added	Result	Qualifier	Unit	D	% Rec	Limits
Methane			1910	1600		ug/L		84	75 - 125

Lab Sample ID: LCSD 680-203470/4						Client Sample ID: Lab Control Sample Dup			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 203470									
Analyte			Spike	LCSD	LCSD			% Rec.	RPD
			Added	Result	Qualifier	Unit	D	% Rec	Limits RPD Limit
Methane			1910	1600		ug/L		84	75 - 125 0 30

Lab Sample ID: MB 680-204028/6						Client Sample ID: Method Blank			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 204028									
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			05/25/11 11:41	1
Ethylene	1.0	U	1.0		ug/L			05/25/11 11:41	1
Methane	0.58	U	0.58		ug/L			05/25/11 11:41	1

Lab Sample ID: LCS 680-204028/5						Client Sample ID: Lab Control Sample			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 204028									
Analyte			Spike	LCS	LCS			% Rec.	
			Added	Result	Qualifier	Unit	D	% Rec	Limits
Ethane			282	325		ug/L		115	75 - 125
Ethylene			271	320		ug/L		118	75 - 125
Methane			153	181		ug/L		118	75 - 125

Lab Sample ID: LCSD 680-204028/7						Client Sample ID: Lab Control Sample Dup			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 204028									
Analyte			Spike	LCSD	LCSD			% Rec.	RPD
			Added	Result	Qualifier	Unit	D	% Rec	Limits RPD Limit
Ethane			282	302		ug/L		107	75 - 125 7 30
Ethylene			271	298		ug/L		110	75 - 125 7 30
Methane			153	166		ug/L		108	75 - 125 9 30

Lab Sample ID: MB 680-204083/11						Client Sample ID: Method Blank			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 204083									
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.58	U	0.58		ug/L			05/25/11 11:41	1

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 680-204083/9		Client Sample ID: Lab Control Sample							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204083									

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
Methane	1910	1660		ug/L		87	75 - 125	

Lab Sample ID: LCSD 680-204083/10		Client Sample ID: Lab Control Sample Dup							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204083									

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits		RPD	Limit
Methane	1910	1700		ug/L		89	75 - 125	3	30	

Lab Sample ID: MB 680-204167/8		Client Sample ID: Method Blank							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204167									

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethane	1.1	U	1.1		ug/L			05/26/11 11:28	1
Ethylene	1.0	U	1.0		ug/L			05/26/11 11:28	1
Methane	0.58	U	0.58		ug/L			05/26/11 11:28	1

Lab Sample ID: LCS 680-204167/6		Client Sample ID: Lab Control Sample							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204167									

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
Ethane	282	320		ug/L		113	75 - 125	
Ethylene	271	323		ug/L		119	75 - 125	
Methane	153	177		ug/L		116	75 - 125	

Lab Sample ID: LCSD 680-204167/7		Client Sample ID: Lab Control Sample Dup							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204167									

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits		RPD	Limit
Ethane	282	320		ug/L		113	75 - 125	0	30	
Ethylene	271	316		ug/L		117	75 - 125	2	30	
Methane	153	175		ug/L		115	75 - 125	1	30	

Lab Sample ID: MB 680-204171/5		Client Sample ID: Method Blank							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204171									

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methane	0.58	U	0.58		ug/L			05/26/11 11:28	1

Lab Sample ID: LCS 680-204171/3		Client Sample ID: Lab Control Sample							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 204171									

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
Methane	1910	1660		ug/L		87	75 - 125	

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 680-204171/4
Matrix: Water
Analysis Batch: 204171

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec.		RPD
							Limits	RPD	
Methane	1910	1610		ug/L		84	75 - 125	3	30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 680-203349/1-A
Matrix: Water
Analysis Batch: 203672

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 203349

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	0.050	U	0.050		mg/L		05/18/11 17:08	05/20/11 20:14	1
Iron, Dissolved	0.050	U	0.050		mg/L		05/18/11 17:08	05/20/11 20:14	1
Manganese	0.010	U	0.010		mg/L		05/18/11 17:08	05/20/11 20:14	1
Manganese, Dissolved	0.010	U	0.010		mg/L		05/18/11 17:08	05/20/11 20:14	1

Lab Sample ID: LCS 680-203349/2-A
Matrix: Water
Analysis Batch: 203672

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 203349

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	
							Limits	
Iron	1.00	0.981		mg/L		98	75 - 125	
Iron, Dissolved	1.00	0.981		mg/L		98	75 - 125	
Manganese	0.500	0.511		mg/L		102	75 - 125	
Manganese, Dissolved	0.500	0.511		mg/L		102	75 - 125	

Lab Sample ID: MB 680-203594/1-A
Matrix: Water
Analysis Batch: 203980

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 203594

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	0.050	U	0.050		mg/L		05/20/11 13:18	05/25/11 03:26	1
Iron, Dissolved	0.050	U	0.050		mg/L		05/20/11 13:18	05/25/11 03:26	1
Manganese	0.010	U	0.010		mg/L		05/20/11 13:18	05/25/11 03:26	1
Manganese, Dissolved	0.010	U	0.010		mg/L		05/20/11 13:18	05/25/11 03:26	1

Lab Sample ID: LCS 680-203594/2-A
Matrix: Water
Analysis Batch: 203980

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 203594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	
							Limits	
Iron	1.00	1.00		mg/L		100	75 - 125	
Iron, Dissolved	1.00	1.00		mg/L		100	75 - 125	
Manganese	0.500	0.490		mg/L		98	75 - 125	
Manganese, Dissolved	0.500	0.490		mg/L		98	75 - 125	

Lab Sample ID: 680-68518-1 MS
Matrix: Water
Analysis Batch: 203980

Client Sample ID: CPA-MW-03D-0511
Prep Type: Total Recoverable
Prep Batch: 203594

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	% Rec	% Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
Iron	12		1.00	12.5	4	mg/L		89	75 - 125	

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QC Sample Results

Client: Solutia Inc.
Project/Site: W GK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 680-68518-1 MS			Client Sample ID: CPA-MW-03D-0511							
Matrix: Water			Prep Type: Total Recoverable							
Analysis Batch: 203980			Prep Batch: 203594							
Analyte	Sample	Sample	Spike	MS MS		Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Iron, Dissolved	12		1.00	12.5	4	mg/L		89	75 - 125	
Manganese	0.59		0.500	1.08		mg/L		100	75 - 125	
Manganese, Dissolved	0.59		0.500	1.08		mg/L		100	75 - 125	

Lab Sample ID: 680-68518-1 MSD			Client Sample ID: CPA-MW-03D-0511								
Matrix: Water			Prep Type: Total Recoverable								
Analysis Batch: 203980			Prep Batch: 203594								
Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	% Rec	% Rec.		RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Iron	12		1.00	12.5	4	mg/L		91	75 - 125		0
Iron, Dissolved	12		1.00	12.5	4	mg/L		91	75 - 125		0
Manganese	0.59		0.500	1.08		mg/L		99	75 - 125		0
Manganese, Dissolved	0.59		0.500	1.08		mg/L		99	75 - 125		0

Lab Sample ID: MB 680-203969/1-A			Client Sample ID: Method Blank							
Matrix: Water			Prep Type: Total Recoverable							
Analysis Batch: 204153			Prep Batch: 203969							
Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							Dil Fac	Dil Fac
Iron	0.050	U	0.050		mg/L		05/25/11 09:34	05/25/11 22:56	1	
Iron, Dissolved	0.050	U	0.050		mg/L		05/25/11 09:34	05/25/11 22:56	1	
Manganese	0.010	U	0.010		mg/L		05/25/11 09:34	05/25/11 22:56	1	
Manganese, Dissolved	0.010	U	0.010		mg/L		05/25/11 09:34	05/25/11 22:56	1	

Lab Sample ID: LCS 680-203969/2-A			Client Sample ID: Lab Control Sample							
Matrix: Water			Prep Type: Total Recoverable							
Analysis Batch: 204153			Prep Batch: 203969							
Analyte	Spike Added	LCS LCS	Unit	D	% Rec	% Rec.				
						Result	Qualifier	Limits	Limits	
Iron	1.00	1.07	mg/L		107	75 - 125				
Iron, Dissolved	1.00	1.07	mg/L		107	75 - 125				
Manganese	0.500	0.521	mg/L		104	75 - 125				
Manganese, Dissolved	0.500	0.521	mg/L		104	75 - 125				

Method: 310.1 - Alkalinity

Lab Sample ID: MB 680-203484/1			Client Sample ID: Method Blank							
Matrix: Water			Prep Type: Total/NA							
Analysis Batch: 203484										
Analyte	MB MB		RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							Dil Fac	Dil Fac
Alkalinity	5.0	U	5.0		mg/L			05/18/11 23:59	1	
Carbon Dioxide, Free	5.0	U	5.0		mg/L			05/18/11 23:59	1	

Lab Sample ID: LCS 680-203484/2			Client Sample ID: Lab Control Sample							
Matrix: Water			Prep Type: Total/NA							
Analysis Batch: 203484										
Analyte	Spike Added	LCS LCS	Unit	D	% Rec	% Rec.				
						Result	Qualifier	Limits	Limits	
Alkalinity	252	246	mg/L		98	80 - 120				

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: LCS 680-203484/27				Client Sample ID: Lab Control Sample Dup						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 203484										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit	
Alkalinity	252	247		mg/L		98	80 - 120	1	30	

Lab Sample ID: 680-68483-7 DU				Client Sample ID: CPA-MW-05D-0511						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 203484										
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D		RPD	RPD Limit	
Alkalinity	370		361		mg/L			2	30	
Carbon Dioxide, Free	110		115		mg/L			2	30	

Lab Sample ID: MB 680-203784/2				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 203784										
Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Alkalinity	5.0	U	5.0		mg/L			05/22/11 11:46	1	
Carbon Dioxide, Free	5.0	U	5.0		mg/L			05/22/11 11:46	1	

Lab Sample ID: LCS 680-203784/3				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 203784										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits			
Alkalinity	252	246		mg/L		98	80 - 120			

Lab Sample ID: LCS 680-203784/20				Client Sample ID: Lab Control Sample Dup						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 203784										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit	
Alkalinity	252	248		mg/L		98	80 - 120	1	30	

Method: 325.2 - Chloride

Lab Sample ID: MB 680-204782/10				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204782										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1.0	U	1.0		mg/L			06/03/11 11:50	1	

Lab Sample ID: LCS 680-204782/2				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204782										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits			
Chloride	50.0	51.3		mg/L		103	85 - 115			

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 325.2 - Chloride (Continued)

Lab Sample ID: 680-68483-1 MS				Client Sample ID: CPA-MW-04D-0511						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 204782										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits	
Chloride	290		50.0	327	4	mg/L		73	85 - 115	

Lab Sample ID: 680-68483-1 MSD				Client Sample ID: CPA-MW-04D-0511								
Matrix: Water				Prep Type: Total/NA								
Analysis Batch: 204782												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits		RPD	Limit
Chloride	290		50.0	326	4	mg/L		71	85 - 115		0	30

Lab Sample ID: MB 680-205309/1				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205309										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1.0	U	1.0		mg/L			06/08/11 11:44	1	

Lab Sample ID: LCS 680-205309/8				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205309										
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits	
Chloride			50.0	51.9		mg/L		104	85 - 115	

Lab Sample ID: 680-68518-1 MS				Client Sample ID: CPA-MW-03D-0511						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205309										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits	
Chloride	110		50.0	152	F	mg/L		81	85 - 115	

Lab Sample ID: 680-68518-1 MSD				Client Sample ID: CPA-MW-03D-0511								
Matrix: Water				Prep Type: Total/NA								
Analysis Batch: 205309												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits		RPD	Limit
Chloride	110		50.0	151	F	mg/L		79	85 - 115		1	30

Lab Sample ID: MB 680-205856/12				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205856										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1.0	U	1.0		mg/L			06/14/11 11:05	1	

Lab Sample ID: LCS 680-205856/2				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205856										
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits	
Chloride			50.0	52.1		mg/L		104	85 - 115	

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-203483/14
Matrix: Water
Analysis Batch: 203483

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	0.050	U	0.050		mg/L			05/19/11 15:16	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/19/11 15:16	1
Nitrite as N	0.050	U	0.050		mg/L			05/19/11 15:16	1

Lab Sample ID: LCS 680-203483/15
Matrix: Water
Analysis Batch: 203483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Nitrate as N	0.500	0.500		mg/L		100	
Nitrate Nitrite as N	1.00	0.995		mg/L		99	90 - 110
Nitrite as N	0.500	0.496		mg/L		99	90 - 110

Lab Sample ID: 680-68518-1 MS
Matrix: Water
Analysis Batch: 203483

Client Sample ID: CPA-MW-03D-0511
Prep Type: Total/NA

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	% Rec	% Rec. Limits
	Result	Qualifier		Result	Qualifier				
Nitrate as N	0.050	U	0.500	0.502		mg/L		100	
Nitrate Nitrite as N	0.050		1.00	1.01		mg/L		101	90 - 110
Nitrite as N	0.050		0.500	0.507		mg/L		101	90 - 110

Lab Sample ID: 680-68518-1 MSD
Matrix: Water
Analysis Batch: 203483

Client Sample ID: CPA-MW-03D-0511
Prep Type: Total/NA

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
Nitrate as N	0.050	U	0.500	0.502		mg/L		100		0	
Nitrate Nitrite as N	0.050		1.00	1.01		mg/L		101	90 - 110	0	10
Nitrite as N	0.050		0.500	0.507		mg/L		101	90 - 110	0	10

Lab Sample ID: MB 680-203485/14
Matrix: Water
Analysis Batch: 203485

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	0.050	U	0.050		mg/L			05/18/11 15:55	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/18/11 15:55	1
Nitrite as N	0.050	U	0.050		mg/L			05/18/11 15:55	1

Lab Sample ID: LCS 680-203485/15
Matrix: Water
Analysis Batch: 203485

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Nitrate as N	0.500	0.503		mg/L		101	
Nitrate Nitrite as N	1.00	1.00		mg/L		100	90 - 110
Nitrite as N	0.500	0.498		mg/L		100	90 - 110

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-68483-1 MS Matrix: Water Analysis Batch: 203485				Client Sample ID: CPA-MW-04D-0511 Prep Type: Total/NA						
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Nitrate as N	0.050	U	0.500	0.509		mg/L		102		
Nitrate Nitrite as N	0.050		1.00	1.02		mg/L		102	90 - 110	
Nitrite as N	0.050		0.500	0.512		mg/L		102	90 - 110	

Lab Sample ID: 680-68483-1 MSD Matrix: Water Analysis Batch: 203485				Client Sample ID: CPA-MW-04D-0511 Prep Type: Total/NA							
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.		RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Nitrate as N	0.050	U	0.500	0.503		mg/L		101			1
Nitrate Nitrite as N	0.050		1.00	1.01		mg/L		101	90 - 110		10
Nitrite as N	0.050		0.500	0.512		mg/L		102	90 - 110		10

Lab Sample ID: MB 680-203619/14 Matrix: Water Analysis Batch: 203619				Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier								
Nitrate as N	0.050	U	0.050		mg/L			05/20/11 16:01		1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/20/11 16:01		1
Nitrite as N	0.050	U	0.050		mg/L			05/20/11 16:01		1

Lab Sample ID: 680-68580-1 MS Matrix: Water Analysis Batch: 203619				Client Sample ID: CPA-MW-01D-0511 Prep Type: Total/NA						
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Nitrate as N	0.050	U	0.500	0.495		mg/L		99		
Nitrate Nitrite as N	0.050		1.00	1.06		mg/L		101	90 - 110	
Nitrite as N	0.074		0.500	0.562		mg/L		97	90 - 110	

Lab Sample ID: 680-68580-1 MSD Matrix: Water Analysis Batch: 203619				Client Sample ID: CPA-MW-01D-0511 Prep Type: Total/NA							
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.		RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Nitrate as N	0.050	U	0.500	0.491		mg/L		98			1
Nitrate Nitrite as N	0.050		1.00	1.05		mg/L		100	90 - 110		10
Nitrite as N	0.074		0.500	0.561		mg/L		97	90 - 110		10

Method: 375.4 - Sulfate

Lab Sample ID: MB 680-205312/1 Matrix: Water Analysis Batch: 205312				Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier								
Sulfate	5.0	U	5.0		mg/L			06/08/11 09:42		1

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 375.4 - Sulfate (Continued)

Lab Sample ID: LCS 680-205312/2				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 205312							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Sulfate	20.0	19.6		mg/L		98	75 - 125

Lab Sample ID: MB 680-205858/1				Client Sample ID: Method Blank					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 205858									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0		mg/L			06/14/11 09:49	1

Lab Sample ID: LCS 680-205858/2				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 205858							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Sulfate	20.0	20.9		mg/L		105	75 - 125

Lab Sample ID: 680-68580-3 MS				Client Sample ID: CPA-MW-02D-0511					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 205858									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Sulfate	50	U	200	206		mg/L		103	75 - 125

Lab Sample ID: 680-68580-3 MSD				Client Sample ID: CPA-MW-02D-0511							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 205858											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Sulfate	50	U	200	207		mg/L		104	75 - 125	1	30

Method: 415.1 - DOC

Lab Sample ID: MB 680-205333/1				Client Sample ID: Method Blank					
Matrix: Water				Prep Type: Dissolved					
Analysis Batch: 205333									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.0		mg/L			06/08/11 07:54	1

Lab Sample ID: LCS 680-205333/2				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Dissolved			
Analysis Batch: 205333							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Dissolved Organic Carbon	20.0	19.7		mg/L		99	80 - 120

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QC Sample Results

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Method: 415.1 - DOC (Continued)

Lab Sample ID: 680-68518-2 MS				Client Sample ID: CPA-MW-03D-F(.2)-0511						
Matrix: Water				Prep Type: Dissolved						
Analysis Batch: 205333										
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Dissolved Organic Carbon	9.8		20.0	28.7		mg/L		95	80 - 120	

Lab Sample ID: 680-68518-2 MSD				Client Sample ID: CPA-MW-03D-F(.2)-0511							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 205333											
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.		RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Dissolved Organic Carbon	9.8		20.0	28.2		mg/L		92	80 - 120	2	20

Method: 415.1 - TOC

Lab Sample ID: MB 680-205328/2				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205328										
Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier								
Total Organic Carbon	1.0	U	1.0		mg/L			06/08/11 08:06		1

Lab Sample ID: LCS 680-205328/4				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205328										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.			
							Limits			
Total Organic Carbon	20.0	19.3		mg/L		97	80 - 120			

Lab Sample ID: 680-68483-1 MS				Client Sample ID: CPA-MW-04D-0511						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205328										
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Total Organic Carbon	5.8		20.0	25.1		mg/L		96	80 - 120	

Lab Sample ID: 680-68483-1 MSD				Client Sample ID: CPA-MW-04D-0511							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 205328											
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.		RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Total Organic Carbon	5.8		20.0	25.3		mg/L		97	80 - 120	1	25

Lab Sample ID: MB 680-205934/2				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 205934										
Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier								
Total Organic Carbon	1.0	U	1.0		mg/L			06/14/11 13:14		1

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Method: 415.1 - TOC (Continued)

Lab Sample ID: LCS 680-205934/4
Matrix: Water
Analysis Batch: 205934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Total Organic Carbon	20.0	19.7		mg/L		99	80 - 120

205934
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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

GC/MS VOA

Analysis Batch: 204387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68483-9	Trip Blank 31-0511	Total/NA	Water	8260B	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	8260B	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	8260B	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	8260B	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	8260B	
680-68483-7 MS	CPA-MW-05D-0511	Total/NA	Water	8260B	
LCS 680-204387/17	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-204387/18	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204387/20	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 204476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-204476/4	Lab Control Sample	Total/NA	Water	8260B	
680-68518-10	Trip Blank #2-0511	Total/NA	Water	8260B	
LCSD 680-204476/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204476/8	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 204526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68483-7 MSD	CPA-MW-05D-0511	Total/NA	Water	8260B	
LCS 680-204526/15	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-204526/16	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204526/18	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 204538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68518-7	BSA-MW-03D-0511-EB	Total/NA	Water	8260B	
LCS 680-204538/22	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-204538/23	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204538/25	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 204549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-204549/8	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-204549/9	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204549/11	Method Blank	Total/NA	Water	8260B	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	8260B	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	8260B	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	8260B	

Analysis Batch: 204594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68580-6	Trip Blank #3-0511	Total/NA	Water	8260B	
LCS 680-204594/12	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-204594/13	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204594/15	Method Blank	Total/NA	Water	8260B	
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	8260B	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	8260B	
680-68580-5	CPA-MW-02D-0511	Total/NA	Water	8260B	

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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

GC/MS VOA (Continued)

Analysis Batch: 204602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	8260B	
LCS 680-204602/19	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-204602/20	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-204602/22	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 203469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-203469/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-203469/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-203469/6	Method Blank	Total/NA	Water	RSK-175	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	RSK-175	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	RSK-175	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	RSK-175	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	RSK-175	

Analysis Batch: 203470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-203470/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-203470/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-203470/5	Method Blank	Total/NA	Water	RSK-175	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	RSK-175	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	RSK-175	

Analysis Batch: 204028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-204028/5	Lab Control Sample	Total/NA	Water	RSK-175	
MB 680-204028/6	Method Blank	Total/NA	Water	RSK-175	
LCSD 680-204028/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	RSK-175	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	RSK-175	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	RSK-175	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	RSK-175	

Analysis Batch: 204083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	RSK-175	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	RSK-175	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	RSK-175	
LCS 680-204083/9	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-204083/10	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-204083/11	Method Blank	Total/NA	Water	RSK-175	

Analysis Batch: 204167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-204167/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-204167/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-204167/8	Method Blank	Total/NA	Water	RSK-175	
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	RSK-175	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	RSK-175	

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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

GC VOA (Continued)

Analysis Batch: 204171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	RSK-175	
LCS 680-204171/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-204171/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-204171/5	Method Blank	Total/NA	Water	RSK-175	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	RSK-175	

Metals

Prep Batch: 203349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203349/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-203349/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-68483-1	CPA-MW-04D-0511	Total Recoverable	Water	3005A	
680-68483-2	CPA-MW-04D-F(.2)-0511	Dissolved	Water	3005A	
680-68483-3	BSA-MW-05D-0511	Total Recoverable	Water	3005A	
680-68483-4	BSA-MW-05D-F(.2)-0511	Dissolved	Water	3005A	
680-68483-5	BSA-MW-04D-0511	Total Recoverable	Water	3005A	
680-68483-6	BSA-MW-04D-F(.2)-0511	Dissolved	Water	3005A	
680-68483-7	CPA-MW-05D-0511	Total Recoverable	Water	3005A	
680-68483-8	CPA-MW-05D-F(.2)-0511	Dissolved	Water	3005A	

Prep Batch: 203594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203594/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-203594/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-68518-1	CPA-MW-03D-0511	Total Recoverable	Water	3005A	
680-68518-1 MS	CPA-MW-03D-0511	Total Recoverable	Water	3005A	
680-68518-1 MSD	CPA-MW-03D-0511	Total Recoverable	Water	3005A	
680-68518-2	CPA-MW-03D-F(.2)-0511	Dissolved	Water	3005A	
680-68518-3	BSA-MW-02D-0511	Total Recoverable	Water	3005A	
680-68518-4	BSA-MW-02D-F(.2)-0511	Dissolved	Water	3005A	
680-68518-5	BSA-MW-03D-0511	Total Recoverable	Water	3005A	
680-68518-6	BSA-MW-03D-F(.2)-0511	Dissolved	Water	3005A	
680-68518-8	BSA-MW-01S-0511	Total Recoverable	Water	3005A	
680-68518-9	BSA-MW-01S-F(.2)-0511	Dissolved	Water	3005A	

Analysis Batch: 203672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203349/1-A	Method Blank	Total Recoverable	Water	6010B	203349
LCS 680-203349/2-A	Lab Control Sample	Total Recoverable	Water	6010B	203349
680-68483-1	CPA-MW-04D-0511	Total Recoverable	Water	6010B	203349
680-68483-2	CPA-MW-04D-F(.2)-0511	Dissolved	Water	6010B	203349
680-68483-3	BSA-MW-05D-0511	Total Recoverable	Water	6010B	203349
680-68483-4	BSA-MW-05D-F(.2)-0511	Dissolved	Water	6010B	203349
680-68483-5	BSA-MW-04D-0511	Total Recoverable	Water	6010B	203349
680-68483-6	BSA-MW-04D-F(.2)-0511	Dissolved	Water	6010B	203349
680-68483-7	CPA-MW-05D-0511	Total Recoverable	Water	6010B	203349
680-68483-8	CPA-MW-05D-F(.2)-0511	Dissolved	Water	6010B	203349

Prep Batch: 203969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203969/1-A	Method Blank	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Metals (Continued)

Prep Batch: 203969 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-203969/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-68580-1	CPA-MW-01D-0511	Total Recoverable	Water	3005A	
680-68580-2	CPA-MW-01D-F(,2)-0511	Dissolved	Water	3005A	
680-68580-3	CPA-MW-02D-0511	Total Recoverable	Water	3005A	
680-68580-4	CPA-MW-02D-F(,2)-0511	Dissolved	Water	3005A	

Analysis Batch: 203980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203594/1-A	Method Blank	Total Recoverable	Water	6010B	203594
LCS 680-203594/2-A	Lab Control Sample	Total Recoverable	Water	6010B	203594
680-68518-1	CPA-MW-03D-0511	Total Recoverable	Water	6010B	203594
680-68518-1 MS	CPA-MW-03D-0511	Total Recoverable	Water	6010B	203594
680-68518-1 MSD	CPA-MW-03D-0511	Total Recoverable	Water	6010B	203594
680-68518-2	CPA-MW-03D-F(,2)-0511	Dissolved	Water	6010B	203594
680-68518-3	BSA-MW-02D-0511	Total Recoverable	Water	6010B	203594
680-68518-4	BSA-MW-02D-F(,2)-0511	Dissolved	Water	6010B	203594
680-68518-5	BSA-MW-03D-0511	Total Recoverable	Water	6010B	203594
680-68518-6	BSA-MW-03D-F(,2)-0511	Dissolved	Water	6010B	203594
680-68518-8	BSA-MW-01S-0511	Total Recoverable	Water	6010B	203594
680-68518-9	BSA-MW-01S-F(,2)-0511	Dissolved	Water	6010B	203594

Analysis Batch: 204153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203969/1-A	Method Blank	Total Recoverable	Water	6010B	203969
LCS 680-203969/2-A	Lab Control Sample	Total Recoverable	Water	6010B	203969
680-68580-1	CPA-MW-01D-0511	Total Recoverable	Water	6010B	203969
680-68580-2	CPA-MW-01D-F(,2)-0511	Dissolved	Water	6010B	203969
680-68580-3	CPA-MW-02D-0511	Total Recoverable	Water	6010B	203969
680-68580-4	CPA-MW-02D-F(,2)-0511	Dissolved	Water	6010B	203969

General Chemistry

Analysis Batch: 203483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203483/14	Method Blank	Total/NA	Water	353.2	
LCS 680-203483/15	Lab Control Sample	Total/NA	Water	353.2	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	353.2	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	353.2	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	353.2	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	353.2	
680-68518-1 MS	CPA-MW-03D-0511	Total/NA	Water	353.2	
680-68518-1 MSD	CPA-MW-03D-0511	Total/NA	Water	353.2	

Analysis Batch: 203484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203484/1	Method Blank	Total/NA	Water	310.1	
LCS 680-203484/2	Lab Control Sample	Total/NA	Water	310.1	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	310.1	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	310.1	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	310.1	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	310.1	
680-68483-7 DU	CPA-MW-05D-0511	Total/NA	Water	310.1	

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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

General Chemistry (Continued)

Analysis Batch: 203484 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-203484/27	Lab Control Sample Dup	Total/NA	Water	310.1	

Analysis Batch: 203485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203485/14	Method Blank	Total/NA	Water	353.2	
LCS 680-203485/15	Lab Control Sample	Total/NA	Water	353.2	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	353.2	
680-68483-1 MS	CPA-MW-04D-0511	Total/NA	Water	353.2	
680-68483-1 MSD	CPA-MW-04D-0511	Total/NA	Water	353.2	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	353.2	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	353.2	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	353.2	

Analysis Batch: 203619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203619/14	Method Blank	Total/NA	Water	353.2	
LCS 680-203619/15	Lab Control Sample	Total/NA	Water	353.2	
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	353.2	
680-68580-1 MS	CPA-MW-01D-0511	Total/NA	Water	353.2	
680-68580-1 MSD	CPA-MW-01D-0511	Total/NA	Water	353.2	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	353.2	

Analysis Batch: 203784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-203784/2	Method Blank	Total/NA	Water	310.1	
LCS 680-203784/3	Lab Control Sample	Total/NA	Water	310.1	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	310.1	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	310.1	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	310.1	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	310.1	
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	310.1	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	310.1	
LCSD 680-203784/20	Lab Control Sample Dup	Total/NA	Water	310.1	

Analysis Batch: 204782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-204782/2	Lab Control Sample	Total/NA	Water	325.2	
MB 680-204782/10	Method Blank	Total/NA	Water	325.2	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	325.2	
680-68483-1 MS	CPA-MW-04D-0511	Total/NA	Water	325.2	
680-68483-1 MSD	CPA-MW-04D-0511	Total/NA	Water	325.2	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	325.2	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	325.2	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	325.2	

Analysis Batch: 205309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-205309/1	Method Blank	Total/NA	Water	325.2	
LCS 680-205309/8	Lab Control Sample	Total/NA	Water	325.2	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	325.2	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	325.2	
680-68518-1 MS	CPA-MW-03D-0511	Total/NA	Water	325.2	

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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

General Chemistry (Continued)

Analysis Batch: 205309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68518-1 MSD	CPA-MW-03D-0511	Total/NA	Water	325.2	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	325.2	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	325.2	

Analysis Batch: 205312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-205312/1	Method Blank	Total/NA	Water	375.4	
LCS 680-205312/2	Lab Control Sample	Total/NA	Water	375.4	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	375.4	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	375.4	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	375.4	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	375.4	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	375.4	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	375.4	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	375.4	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	375.4	

Analysis Batch: 205328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-205328/2	Method Blank	Total/NA	Water	415.1	
LCS 680-205328/4	Lab Control Sample	Total/NA	Water	415.1	
680-68483-1	CPA-MW-04D-0511	Total/NA	Water	415.1	
680-68483-1 MS	CPA-MW-04D-0511	Total/NA	Water	415.1	
680-68483-1 MSD	CPA-MW-04D-0511	Total/NA	Water	415.1	
680-68483-3	BSA-MW-05D-0511	Total/NA	Water	415.1	
680-68483-5	BSA-MW-04D-0511	Total/NA	Water	415.1	
680-68483-7	CPA-MW-05D-0511	Total/NA	Water	415.1	
680-68518-1	CPA-MW-03D-0511	Total/NA	Water	415.1	
680-68518-3	BSA-MW-02D-0511	Total/NA	Water	415.1	
680-68518-5	BSA-MW-03D-0511	Total/NA	Water	415.1	
680-68518-8	BSA-MW-01S-0511	Total/NA	Water	415.1	

Analysis Batch: 205333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-205333/1	Method Blank	Dissolved	Water	415.1	
LCS 680-205333/2	Lab Control Sample	Dissolved	Water	415.1	
680-68518-2	CPA-MW-03D-F(.2)-0511	Dissolved	Water	415.1	
680-68518-2 MS	CPA-MW-03D-F(.2)-0511	Dissolved	Water	415.1	
680-68518-2 MSD	CPA-MW-03D-F(.2)-0511	Dissolved	Water	415.1	
680-68518-4	BSA-MW-02D-F(.2)-0511	Dissolved	Water	415.1	
680-68518-6	BSA-MW-03D-F(.2)-0511	Dissolved	Water	415.1	
680-68518-9	BSA-MW-01S-F(.2)-0511	Dissolved	Water	415.1	
680-68483-2	CPA-MW-04D-F(.2)-0511	Dissolved	Water	415.1	
680-68483-4	BSA-MW-05D-F(.2)-0511	Dissolved	Water	415.1	
680-68483-6	BSA-MW-04D-F(.2)-0511	Dissolved	Water	415.1	
680-68483-8	CPA-MW-05D-F(.2)-0511	Dissolved	Water	415.1	

Analysis Batch: 205856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-205856/2	Lab Control Sample	Total/NA	Water	325.2	
MB 680-205856/12	Method Blank	Total/NA	Water	325.2	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	325.2	

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QC Association Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

General Chemistry (Continued)

Analysis Batch: 205856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	325.2	

Analysis Batch: 205858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-205858/1	Method Blank	Total/NA	Water	375.4	
LCS 680-205858/2	Lab Control Sample	Total/NA	Water	375.4	
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	375.4	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	375.4	
680-68580-3 MS	CPA-MW-02D-0511	Total/NA	Water	375.4	
680-68580-3 MSD	CPA-MW-02D-0511	Total/NA	Water	375.4	

Analysis Batch: 205934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-205934/2	Method Blank	Total/NA	Water	415.1	
LCS 680-205934/4	Lab Control Sample	Total/NA	Water	415.1	
680-68580-1	CPA-MW-01D-0511	Total/NA	Water	415.1	
680-68580-3	CPA-MW-02D-0511	Total/NA	Water	415.1	

Analysis Batch: 205937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-68580-4	CPA-MW-02D-F(.2)-0511	Dissolved	Water	415.1	
680-68580-2	CPA-MW-01D-F(.2)-0511	Dissolved	Water	415.1	

*7/25/14
 AL*

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-04D-0511

Lab Sample ID: 680-68483-1

Date Collected: 05/17/11 14:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared		
	Type	Method		Factor	Amount	Amount	Number	Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	204387	05/28/11 18:42	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	203469	05/19/11 16:21	AGM	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	203470	05/19/11 16:21	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:08	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203672	05/20/11 21:22	JPH	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203484	05/19/11 01:48	TR	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203485	05/18/11 15:58	JR	TAL SAV
Total/NA	Analysis	325.2		10	2 mL	2 mL	204782	06/03/11 12:33	JR	TAL SAV
Total/NA	Analysis	375.4		1	2 mL	2 mL	205312	06/08/11 09:44	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 09:46	TH	TAL SAV

Client Sample ID: CPA-MW-04D-F(.2)-0511

Lab Sample ID: 680-68483-2

Date Collected: 05/17/11 14:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared		
	Type	Method		Factor	Amount	Amount	Number	Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:08	RA	TAL SAV
Dissolved	Analysis	6010B		1			203672	05/20/11 21:27	JPH	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: BSA-MW-05D-0511

Lab Sample ID: 680-68483-3

Date Collected: 05/17/11 13:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared		
	Type	Method		Factor	Amount	Amount	Number	Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	204387	05/28/11 15:45	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	203469	05/19/11 16:34	AGM	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	203470	05/19/11 16:34	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:08	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203672	05/20/11 21:31	JPH	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203484	05/19/11 02:00	TR	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203485	05/18/11 16:01	JR	TAL SAV
Total/NA	Analysis	325.2		2	2 mL	2 mL	204782	06/03/11 12:41	JR	TAL SAV
Total/NA	Analysis	375.4		2	2 mL	2 mL	205312	06/08/11 10:01	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 10:35	TH	TAL SAV

Client Sample ID: BSA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-4

Date Collected: 05/17/11 13:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared		
	Type	Method		Factor	Amount	Amount	Number	Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:08	RA	TAL SAV
Dissolved	Analysis	6010B		1			203672	05/20/11 21:35	JPH	TAL SAV

TestAmerica Savannah

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Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-4

Date Collected: 05/17/11 13:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: BSA-MW-04D-0511

Lab Sample ID: 680-68483-5

Date Collected: 05/17/11 09:45

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	204387	05/28/11 19:12	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	203469	05/19/11 16:47	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:08	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203672	05/20/11 21:40	JPH	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203484	05/19/11 02:10	TR	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203485	05/18/11 16:03	JR	TAL SAV
Total/NA	Analysis	325.2		2	2 mL	2 mL	204782	06/03/11 12:41	JR	TAL SAV
Total/NA	Analysis	375.4		2	2 mL	2 mL	205312	06/08/11 10:24	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 10:50	TH	TAL SAV

Client Sample ID: BSA-MW-04D-F(.2)-0511

Lab Sample ID: 680-68483-6

Date Collected: 05/17/11 09:45

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:08	RA	TAL SAV
Dissolved	Analysis	6010B		1			203672	05/20/11 21:44	JPH	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: CPA-MW-05D-0511

Lab Sample ID: 680-68483-7

Date Collected: 05/17/11 11:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	204387	05/28/11 19:41	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	203469	05/19/11 17:00	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:09	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203672	05/20/11 21:57	JPH	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203484	05/19/11 02:18	TR	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203485	05/18/11 16:04	JR	TAL SAV
Total/NA	Analysis	325.2		10	2 mL	2 mL	204782	06/03/11 12:33	JR	TAL SAV
Total/NA	Analysis	375.4		50	2 mL	2 mL	205312	06/08/11 10:25	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 11:04	TH	TAL SAV

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Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-05D-F(.2)-0511

Lab Sample ID: 680-68483-8

Date Collected: 05/17/11 11:30

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203349	05/18/11 17:09	RA	TAL SAV
Dissolved	Analysis	6010B		1			203672	05/20/11 22:01	JPH	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: Trip Blank 31-0511

Lab Sample ID: 680-68483-9

Date Collected: 05/17/11 00:00

Matrix: Water

Date Received: 05/18/11 09:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	204387	05/28/11 13:18	ES	TAL SAV

Client Sample ID: CPA-MW-03D-0511

Lab Sample ID: 680-68518-1

Date Collected: 05/18/11 12:45

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	204549	06/01/11 06:34	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204028	05/25/11 13:23	AGM	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204083	05/25/11 13:23	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203980	05/25/11 03:41	BCB	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203483	05/19/11 15:47	JR	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203784	05/22/11 13:01	TR	TAL SAV
Total/NA	Analysis	325.2		2	2 mL	2 mL	205309	06/08/11 12:37	JR	TAL SAV
Total/NA	Analysis	375.4		2	2 mL	2 mL	205312	06/08/11 10:04	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 11:19	TH	TAL SAV

Client Sample ID: CPA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-2

Date Collected: 05/18/11 12:45

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Dissolved	Analysis	6010B		1			203980	05/25/11 04:07	BCB	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: BSA-MW-02D-0511

Lab Sample ID: 680-68518-3

Date Collected: 05/18/11 10:40

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2000	5 mL	5 mL	204602	06/01/11 19:53	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204028	05/25/11 13:35	AGM	TAL SAV

TestAmerica Savannah

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Lab Chronicle

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Client Sample ID: BSA-MW-02D-0511

Lab Sample ID: 680-68518-3

Date Collected: 05/18/11 10:40

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204083	05/25/11 13:35	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203980	05/25/11 04:13	BCB	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203483	05/19/11 15:22	JR	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203784	05/22/11 13:12	TR	TAL SAV
Total/NA	Analysis	325.2		2	2 mL	2 mL	205309	06/08/11 12:37	JR	TAL SAV
Total/NA	Analysis	375.4		1	2 mL	2 mL	205312	06/08/11 09:48	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 11:33	TH	TAL SAV

Client Sample ID: BSA-MW-02D-F(.2)-0511

Lab Sample ID: 680-68518-4

Date Collected: 05/18/11 10:40

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Dissolved	Analysis	6010B		1			203980	05/25/11 04:28	BCB	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: BSA-MW-03D-0511

Lab Sample ID: 680-68518-5

Date Collected: 05/18/11 09:40

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	204549	06/01/11 05:52	ES	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204028	05/25/11 13:48	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203980	05/25/11 04:34	BCB	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203483	05/19/11 15:23	JR	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203784	05/22/11 13:21	TR	TAL SAV
Total/NA	Analysis	325.2		1	2 mL	2 mL	205309	06/08/11 11:48	JR	TAL SAV
Total/NA	Analysis	375.4		10	2 mL	2 mL	205312	06/08/11 10:24	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 11:49	TH	TAL SAV

Client Sample ID: BSA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-6

Date Collected: 05/18/11 09:40

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Dissolved	Analysis	6010B		1			203980	05/25/11 04:39	BCB	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

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Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: BSA-MW-03D-0511-EB

Lab Sample ID: 680-68518-7

Date Collected: 05/18/11 09:40

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	204538	06/01/11 04:42	WJC	TAL SAV

Client Sample ID: BSA-MW-01S-0511

Lab Sample ID: 680-68518-8

Date Collected: 05/18/11 08:20

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5000	5 mL	5 mL	204549	06/01/11 05:31	ES	TAL SAV
Total/NA	Analysis	RSK-175	1		17000 uL	17 mL	204028	05/25/11 14:01	AGM	TAL SAV
Total/NA	Analysis	RSK-175	1		17000 uL	17 mL	204083	05/25/11 14:01	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			203980	05/25/11 04:44	BCB	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203483	05/19/11 15:24	JR	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203784	05/22/11 13:32	TR	TAL SAV
Total/NA	Analysis	325.2		2	2 mL	2 mL	205309	06/08/11 12:37	JR	TAL SAV
Total/NA	Analysis	375.4		1	2 mL	2 mL	205312	06/08/11 09:49	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205328	06/08/11 12:04	TH	TAL SAV

Client Sample ID: BSA-MW-01S-F(.2)-0511

Lab Sample ID: 680-68518-9

Date Collected: 05/18/11 08:20

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203594	05/20/11 13:18	RA	TAL SAV
Dissolved	Analysis	6010B		1			203980	05/25/11 04:49	BCB	TAL SAV
Dissolved	Analysis	415.1		1			205333	06/08/11 07:54	TH	TAL SAV

Client Sample ID: Trip Blank #2-0511

Lab Sample ID: 680-68518-10

Date Collected: 05/18/11 00:00

Matrix: Water

Date Received: 05/19/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	204476	05/30/11 11:39	ES	TAL SAV

Client Sample ID: CPA-MW-01D-0511

Lab Sample ID: 680-68580-1

Date Collected: 05/19/11 08:10

Matrix: Water

Date Received: 05/20/11 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	204594	06/01/11 17:29	WJC	TAL SAV
Total/NA	Analysis	RSK-175	1		17000 uL	17 mL	204167	05/26/11 12:48	AGM	TAL SAV
Total/NA	Analysis	RSK-175	1		17000 uL	17 mL	204171	05/26/11 12:48	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203969	05/25/11 09:34	RA	TAL SAV

TestAmerica Savannah

*North
All*

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-01D-0511

Lab Sample ID: 680-68580-1

Date Collected: 05/19/11 08:10

Matrix: Water

Date Received: 05/20/11 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6010B		1			204153	05/26/11 00:56	BCB	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203619	05/20/11 16:03	JR	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203784	05/22/11 13:45	TR	TAL SAV
Total/NA	Analysis	325.2		2	2 mL	2 mL	205856	06/14/11 11:25	JR	TAL SAV
Total/NA	Analysis	375.4		1	2 mL	2 mL	205858	06/14/11 09:49	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205934	06/14/11 16:06	TH	TAL SAV

Client Sample ID: CPA-MW-01D-F(.2)-0511

Lab Sample ID: 680-68580-2

Date Collected: 05/19/11 08:10

Matrix: Water

Date Received: 05/20/11 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203969	05/25/11 09:34	RA	TAL SAV
Dissolved	Analysis	6010B		1			204153	05/26/11 01:01	BCB	TAL SAV
Dissolved	Analysis	415.1		1			205937	06/14/11 13:04	TH	TAL SAV

Client Sample ID: CPA-MW-02D-0511

Lab Sample ID: 680-68580-3

Date Collected: 05/19/11 09:15

Matrix: Water

Date Received: 05/20/11 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	204594	06/01/11 17:59	WJC	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204167	05/26/11 13:01	AGM	TAL SAV
Total/NA	Analysis	RSK-175		1	17000 uL	17 mL	204171	05/26/11 13:01	AGM	TAL SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	203969	05/25/11 09:34	RA	TAL SAV
Total Recoverable	Analysis	6010B		1			204153	05/26/11 01:06	BCB	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	203619	05/20/11 16:07	JR	TAL SAV
Total/NA	Analysis	310.1		1	30 mL	30 mL	203784	05/22/11 13:54	TR	TAL SAV
Total/NA	Analysis	325.2		1	2 mL	2 mL	205856	06/14/11 11:12	JR	TAL SAV
Total/NA	Analysis	375.4		10	2 mL	2 mL	205858	06/14/11 10:18	JR	TAL SAV
Total/NA	Analysis	415.1		1	25 mL	25 mL	205934	06/14/11 16:20	TH	TAL SAV

Client Sample ID: CPA-MW-02D-F(.2)-0511

Lab Sample ID: 680-68580-4

Date Collected: 05/19/11 09:15

Matrix: Water

Date Received: 05/20/11 09:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	203969	05/25/11 09:34	RA	TAL SAV
Dissolved	Analysis	6010B		1			204153	05/26/11 01:11	BCB	TAL SAV
Dissolved	Analysis	415.1		1			205937	06/14/11 13:04	TH	TAL SAV

TestAmerica Savannah

*7/25/11
AG*

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
SDG: KPS064

Client Sample ID: CPA-MW-02D-0511-AD

Date Collected: 05/19/11 09:15

Date Received: 05/20/11 09:37

Lab Sample ID: 680-68580-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	204594	06/01/11 18:29	WJC	TAL SAV

Client Sample ID: Trip Blank #3-0511

Date Collected: 05/19/11 00:00

Date Received: 05/20/11 09:37

Lab Sample ID: 680-68580-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	204594	06/01/11 17:00	WJC	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



AS
8/4/11

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2Q 11 LTM Samples

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

2Q
11/20/11

PROJECT REFERENCE WGK LTM 2Q 11	PROJECT NO. J017210.14	PROJECT LOCATION (STATE) IL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1	OF 1
TAL (LAB) PROJECT MANAGER Gm Rinaldi	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOC 8260	Total P/mn 6010S	Alka / CO2 310.1	chloride 325.2	Sulfate 375.4	methane esther 125	nitrate 353.2	TOC 415.1	Diss Fe/mn 6010 B	Doc 415.1	STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>	DATE DUE
CLIENT (SITE) PM Gm Rinaldi	CLIENT PHONE 314-674-3312	CLIENT FAX 314-674-8808		HCL	HNO3	PROTECTIVE					HCL	EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>	DATE DUE		
CLIENT NAME Solutia, Inc	CLIENT E-MAIL gmrcia@solutia.com			NUMBER OF CONTAINERS SUBMITTED	REMARKS										
CLIENT ADDRESS 575 Maryville Center Dr, St. Louis, mo 63141	COMPANY CONTRACTING THIS WORK (if applicable)														

SAMPLE		SAMPLE IDENTIFICATION	MATRIX TYPE	NUMBER OF CONTAINERS SUBMITTED										REMARKS		
DATE	TIME			HCL	HNO3	PROTECTIVE										
5-17-11	1430	CPA-mw-04D-0511	GA	3	1	1	1	3	2	1						
	1430	CPA-mw-04D-F(2)-0511	GA									1	1			Filtered
	1330	BSA-mw-05D-0511	GA	3	1	1	1	3	2	1						Filtered
	1330	BSA-mw-05D-F(2)-0511	GA									1	1			Filtered
	0945	BSA-mw-04D-0511	GA	3	1	1	1	3	2	1						Filtered
	0945	BSA-mw-04D-F(2)-0511	GA									1	1			Filtered
	1130	CPA-mw-05D-0511	GA	3	1	1	1	3	2	1						Filtered
	1130	CPA-mw-05D-F(2)-0511	GA									1	1			Filtered
	1130	CPA-mw-05D-0511-MS	GA	3												
	1130	CPA-mw-05D-0511-MSD	GA	3												
		Trip Blank # 1 - 0511		2												

RELINQUISHED BY: (SIGNATURE) <i>JL C [Signature]</i>	DATE 5-17-11	TIME 4:35	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE 5/17/11	TIME 0435	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 681-68483	LABORATORY REMARKS 1.0/1.6°C
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

2Q11 LTM Samples

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

APC
5/19/11

PROJECT REFERENCE W6K LTM 2Q11	PROJECT NO. J017210.14	PROJECT LOCATION (STATE) FL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1	OF 1	
TAL (LAB) PROJECT MANAGER GM Rinaldi	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIF NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOC 8260	Total Fe/mn 6010B	AIKA / CO2 310.1	chloride 325.2	Sulfate 375.4	methanol 270.0	nitrate 353.2	TOC 415.1	DSS Fe/mn 6010B	DOC 415.1	STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>	DATE DUE	
CLIENT (SITE) PM GM Rinaldi	CLIENT PHONE 314-674-3312	CLIENT FAX 314-674-8808		HCL	HNO3	NO3	NO2	NO	NO	NO	NO	NO	NO	NO	EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>	DATE DUE
CLIENT NAME Solutia, Inc	CLIENT E-MAIL gmcina@solutia.com			NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	DATE DUE
CLIENT ADDRESS 575 Maryville Center Dr, St. Louis, MO 63141	COMPANY CONTRACTING THIS WORK (if applicable)			NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	NUMERICAL	REMARKS	DATE DUE

Page 72 of 77

SAMPLE DATE	TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIF	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
								HCL	HNO3	NO3	NO2	NO	NO	NO	NO	NO	NO	
5-18-11	1245	CPA-mw-03D-0511	G	A				3	1	1	1	3	2	1				
	1245	CPA-mw-03D-FC(2)-0511	G	A									1	1			Filtered	
	1040	BSA-mw-02D-0511	G	A				3	1	1	1	3	2	1				
	1040	BSA-mw-02D-FC(2)-0511	G	A										1	1		Filtered	
	0940	BSA-mw-03D-0511	G	A				3	1	1	1	3	2	1				
	0940	BSA-mw-03D-FC(2)-0511	G	A										1	1		Filtered	
	0940	BSA-mw-03D-0511-EB	G	A				3									Equipment Blank	
	0820	BSA-mw-01S-0511	G	A				3	1	1	1	3	2	1				
	0820	BSA-mw-01S-FC(2)-0511	G	A										1	1		Filtered	
		Trip Blank #2-0511						2										

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 5/18/11	TIME 3:45	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE 5/19/11	TIME 0915	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-68518	LABORATORY REMARKS 3.7°C/31°C
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ZQ11 LTM Samples

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE W6K LTM ZQ11	PROJECT NO. J017210.14	PROJECT LOCATION (STATE) IL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1 OF 1			
TAL (LAB) PROJECT MANAGER Gm Rinaldi	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT...)	HCL	VOL 8260	Total Fe/mn	Alkal/CO2	Chloride	Sulfate	Methane	ethane	ethene	N.Hate	TOC	Diss Fe/mn	DOC	STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>
CLIENT (SITE) PM Gm Rinaldi	CLIENT PHONE 314-674-3312	CLIENT FAX 314-674-8888		HCL	310.1	325.2	375.4	125	353.2	415.1	610.5	415.1	DATE DUE _____				
CLIENT NAME Solution, Inc	CLIENT E-MAIL			HCL	PREDECATIVE	EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>											
CLIENT ADDRESS 575 Marquette Center Dr, St. Louis, MO 63141	COMPANY CONTRACTING THIS WORK (if applicable)			HCL	3	1	1	1	3	2	1	1	DATE DUE _____				

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME							HCL	VOL	Total Fe/mn	Alkal/CO2	Chloride	Sulfate	Methane	ethane	ethene	N.Hate	
5-19-11	0810	CPA-MW-01D-0511	G	A				3	1	1	1	3	2	1				
	0810	CPA-MW-01D-F(2)-0511	G	A											1	1	Filtered	
	0915	CPA-MW-02D-0511	G	A				3	1	1	1	3	2	1				
	0915	CPA-MW-02D-F(2)-0511	G	A											1	1	Filtered	
	0915	CPA-MW-02D-0511-AD	G	A				3									Analytical Duplicate	
		Trip Blank #3-0511						3									Trip Blank	

RELINQUISHED BY: (SIGNATURE) <i>KC [Signature]</i>	DATE 5-19-11	TIME 3:00	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE 5/20/11	TIME	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-68580	LABORATORY REMARKS 2.8°C
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7/21/11

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-68483-1

SDG Number: KPS064

Login Number: 68483

List Number: 1

Creator: Conner, Keaton

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2 coolers rec'd on ice
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0 and 1.6 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

14

*7/25/14
AK*

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-68483-1

SDG Number: KPS064

Login Number: 68518

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	all 125ml (HCL) amber glass containers need the ph adjusted
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

14

*7/25/14
AK*

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-68483-1

SDG Number: KPS064

Login Number: 68580

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

14

*7/25/19
AK*

Certification Summary

Client: Solutia Inc.
 Project/Site: WGK Long Term Monitoring - 2Q11 MAY 2011

TestAmerica Job ID: 680-68483-1
 SDG: KPS064

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kansas	NELAC	7	E-10322
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	Nevada	State Program	9	GA6
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

*7/6/11
AK*



MJW CORPORATION

Radiation Consulting Professionals

August 2, 2011

Mr. Duane T. Kreuger
Geotechnology, Inc.
11816 Lackland Road Suite 150
St. Louis, MO63146

Dear Mr. Kreuger:

The data reported by Test America Laboratories under SDG KPS064 has been reviewed for quality assurance validation. Data was reported for Volatiles, Volatiles (dissolved gases), ICP Metals (total and dissolved), Chloride, Nitrate, Sulfate, Organic Carbon (total and dissolved), Alkalinity, and Carbon Dioxide for 27 samples as requested by Geotechnology, Inc. The 27 samples listed below were validated by MJW. The samples in **bold type** have been validated for level IV validation. The data in this report has either been approved for use or approved with qualification.

- **BSA-MW-4D-0511 (Lab ID: 680-68483-5)**
- **BSA-MW-4D-0511-F(0.2) (Lab ID: 680-68483-6)**
- **BSA-MW-5D-0511 (Lab ID: 680-68483-3)**
- **BSA-MW-5D-0511-F(0.2) (Lab ID: 680-68483-4)**
- **CPA-MW-5D-0511 (Lab ID: 680-68483-7)**
- CPA-MW-5D-0511-MS (Lab ID: 680-68483-7MS)
- CPA-MW-5D-0511-MSD (Lab ID: 680-68483-7 MSD)
- **CPA-MW-5D-0511-F(0.2) (Lab ID: 680-68483-8)**
- Trip Blank#1-0511 (Lab ID: 680-68483-9TB)
- **CPA-MW-4D-0511 (Lab ID: 680-68483-1)**
- **CPA-MW-4D-0511-F(0.2) (Lab ID: 680-68483-2)**
- BSA-MW-3D-0511 (Lab ID: 680-68518-5)
- BSA-MW-3D-0511-F(0.2) (Lab ID: 680-68518-6)
- BSA-MW-3D-0511-EB (Lab ID: 680-68518-7EB)
- BSA-MW-2D-0511 (Lab ID: 680-68518-3)
- BSA-MW-2D-0511-F(0.2) (Lab ID: 680-68518-4)
- CPA-MW-3D-0511 (Lab ID: 680-68518-1)
- CPA-MW-3D-0511-F(0.2) (Lab ID: 680-68518-2)
- Trip Blank#2-0511 (Lab ID: 680-68518-10TB)
- BSA-MW-1S-0511 (Lab ID: 680-68518-8)
- BSA-MW-1S-0511-F(0.2) (Lab ID: 680-68518-9)
- CPA-MW-2D-0511 (Lab ID: 680-68580-3)
- CPA-MW-2D-0511-F(0.2) (Lab ID: 680-68580-4)
- CPA-MW-2D-0511-AD (Lab ID: 680-68580-5FD)
- CPA-MW-1D-0511 (Lab ID: 680-68580-1)
- CPA-MW-1D-0511-F(0.2) (Lab ID: 680-68580-2)
- Trip Blank#3-0511 (Lab ID: 680-68580-6TB)

If you have any questions concerning this data validation report, please contact me at 585-344-7197.

Very truly yours,

MJW Corporation Inc.

Annette Guilds, CES
Senior Scientist

Approved by:

David A. Dooley, Ph.D., CHP
President, MJW Corporation Inc.

QUALITY ASSURANCE REPORT

Solutia Inc.
W.G. Krummrich Facility
Sauget, Illinois

Long-Term Monitoring Program
2nd Quarter 2011 Data Validation Report
SDG: KPS064

Prepared for

GEOTECHNOLOGY, INC.
11816 Lackland Road, Suite 150
St. Louis, MO 63146

August 2011

MJW

MJW Corporation, Inc.
1900 Sweet Home Road
Amherst, NY 14228
(716)-631-8291
Project # 2010-1918

**DATA ASSESSMENT NARRATIVE
(ORGANICS)**

ORGANIC DATA ASSESSMENT

Functional Guidelines for Evaluating Organic Analysis

CASE NO.: _____ SDG NO.: KPS064 LABORATORY: Test America
SITE: Solutia W.G. Krummrich Plant (LTM Site)

DATA ASSESSMENT

All data were found to be valid and acceptable except those analytes that have been rejected, "R" (unusable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material), "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All action is detailed on the attached sheets.

The "R" flag means that the associated value is unusable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

Data is fully usable and acceptable.

Reviewer's
Signature: Annette Guntel Date: 8/2/2011

MJW Approval: Louis Henry Date: 8/2/2011

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

The following action was taken in the samples and analytes shown due to excessive holding time.

No action necessary.

2. SURROGATES:

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

No action necessary.

3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

No action necessary.

4. BLANK CONTAMINATION:

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. If the concentration of the analyte is less than 5 times the blank contaminant level (10 times for common contaminants), the analytes are qualified as non-detects, "U". The following analytes in the sample shown were qualified with "U" for these reasons:

A) Method blank contamination:

No action necessary.

B) Field or rinse blank contamination:

No action necessary.

C) Trip blank contamination:

No action necessary.

5. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene and for semi-volatiles Decafluorotriphenyl-phosphine (DFTPP).

If the mass calibration is in error, all associated data will be classified as unusable "R".

No action necessary.

6. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for the Target Compound List (TCL) must be ≥ 0.05 in both initial and continuing calibrations. A value < 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound will be rejected "R".

No action necessary.

7. CALIBRATION:

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be < 30% and %D must be < 25%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detects data may be qualified "R".

For the PEST/PCB fraction, if %RSD exceeds 20% for all analytes except for the two surrogates (which must not exceed 30% RSD), qualify all associated positive results "J" and non-detects "UJ".

No action necessary.

8. INTERNAL STANDARDS PERFORMANCE GC/MS:

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than ± 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction.

No action necessary.

9. COMPOUND IDENTIFICATION:

A) Volatile and Semi-Volatile Fractions:

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications.

No action necessary.

B) Pesticide Fraction:

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10ng/ml in the final sample extract.

N/A

10. CONTRACT PROBLEMS/NON-COMPLIANCE:

11. FIELD DOCUMENTATION: **A field duplicate was analyzed for sample CPA-MW-2D-0511 for volatiles and all %RPD's were acceptable.**

12. OTHER PROBLEMS:

The Rsk-175 (Dissolved Gases) data was incomplete / incorrect. The lab emailed the validator the corrected forms so that the validation could continue. The lab will be issuing a full revised data package for the record.

13. This package contains reextractions, reanalyses or dilutions. Upon reviewing the QA results, the following Form 1(s) are identified to be used.

None

**DATA ASSESSMENT NARRATIVE
(INORGANICS)**

INORGANIC DATA ASSESSMENT NARRATIVE

Site: Solutia W.G. Krummich Plant (LTM Site) Matrix: Soil _____

SDG# KPS064 Lab Test America Water X

Contractor Geotechnology Inc. Reviewer Annette Guilds-MJW Other _____

A.2.1 Validation Flags- The following flags have been applied in red by the data validator and must be considered by the data user.

J- This flag indicates the result qualified as **estimated**

Red- Line- A red line drawn through a sample result indicates **unusable** value. The red lined data are known to contain significant errors based on documented information and must not be used by the data user.

Fully Usable Data- The results that do not carry "J" or "red-line" are fully **usable**.

Contractual Qualifiers- The legend of contractual qualifiers applied by the lab on Form I's is found on page B-20 of SOW ILM01.0.

A.2.2 The data assessment is given below.

Data is fully usable except for the following samples:

Samples BSA-MW-3D-0511 and BSA-MW-3D-F(0.2)-0511 have been estimated "J" for TOC and DOC because the dissolved result is greater than the total result by at least 10%.

Samples CPA-MW-4D-0511 and CPA-MW-4D-F(0.2)-0511 have been estimated "J" for Manganese because the dissolved result is greater than the total result by at least 10%.

The following bulleted items summarize additional comments where data has not been qualified but it is recommended that additional communication with the laboratory be conducted to further assess the data.

- No CCV/CCB data provided on Form II for Alkalinity and Carbon Dioxide. Communication with the laboratory for the previous sampling validation clarified that CCV's/CCB's are not analyzed for Alkalinity and Carbon Dioxide. These analyses are checked for quality with LCS/LCSD. Thus Form II was prepared in error and pages 1431 and 1432 should be ignored or eliminated. On Form XIII (Analysis Run Log) pages 1465 and 1466 the entries for CCV and CCB should also be ignored or eliminated. The raw data reports (pages 1520 and 1521) also lists CCV's. The Chemistry Batch Worksheets (pages 1671, 1672) also lists CCV's. The validator suggests that the laboratory be contacted and asked to remove these items/pages from future data packages.
- CCV/CCB Form II for Sulfate page 1434 was incomplete. The validator has performed hand calculations and has enclosed the corrected form in this report.

A.2.3 Contract-Problem/Non-Compliance

•

Data Reviewer: Annette Guilds Date: 8/2/11
Signature

MJW Approval: Louis Henry Date: 8/2/11
Signature

Summary Data Qualifiers

Data Outlier Forms

CERTIFICATES OF ANALYSIS (COA's)

with Data Validation Qualifiers Added

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS - DISSOLVED

Client Sample ID: CPA-MW-04D-F(.2)-0511 Lab Sample ID: 680-68483-2
 Lab Name: TestAmerica Savannah Job No.: 680-68483-1
 SDG ID.: KPS064
 Matrix: Water Date Sampled: 05/17/2011 14:30
 Reporting Basis: WET Date Received: 05/18/2011 09:33

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	10	0.050	0.024	mg/L			1	6010B
7439-96-5	Manganese, Dissolved	0.34	0.010	0.0030	mg/L		J	1	6010B

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: BSA-MW-03D-0511

Lab Sample ID: 680-68518-5

Lab Name: TestAmerica Savannah

Job No.: 680-68483-1

SDG ID.: KPS064

Matrix: Water

Date Sampled: 05/18/2011 09:40

Reporting Basis: WET

Date Received: 05/19/2011 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
16887-00-6	Chloride	78	1.0	0.18	mg/L			1	325.2
14797-55-8	Nitrate as N	0.050	0.050	0.010	mg/L	U		1	353.2
14808-79-8	Sulfate	200	50	25	mg/L			10	375.4
7440-44-0	Total Organic Carbon	3.7	1.0	0.50	mg/L		J	1	415.1

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: BSA-MW-03D-F(.2)-0511

Lab Sample ID: 680-68518-6

Lab Name: TestAmerica Savannah

Job No.: 680-68483-1

SDG ID.: KPS064

Matrix: Water

Date Sampled: 05/18/2011 09:40

Reporting Basis: WET

Date Received: 05/19/2011 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.1	1.0	0.50	mg/L		J	1	415.1

APPENDIX E

MICROBIAL INSIGHTS DATA PACKAGE



2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Duane Kreuger
Geotechnology, Inc.
11816 Lackland Road
St. Louis, MO 63146

Phone: 314.997.7740

Fax: 314.997.2067

Identifier: 059IF

Date Rec: 06/18/2011

Report Date: 07/08/2011

Client Project #: J017210.14

Client Project Name: Solutia-biotraps for LTM

Purchase Order #:

Analysis Requested: PLFA, Stable Isotope Probing, Standard Bio-Trap

Reviewed By:

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MICROBIAL INSIGHTS, INC.2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133**PLFA****Client:** Geotechnology, Inc.
Project: Solutia-biotraps for LTM**MI Project Number:** 059IF
Date Received: 06/18/2011**Sample Information**

Sample Name:	BSA-MW-15	BSA-MW-2D	BSA-MW-3D	BSA-MW-4D	BSA-MW-5D
Sample Date:	06/17/2011	06/17/2011	06/17/2011	06/17/2011	06/17/2011
Sample Matrix:	Std. Bio-Trap				
Analyst:	BJ	BJ	BJ	BJ	BJ

Biomass Concentrations

Total Biomass (cells/bead)	4.88E+04	1.28E+05	1.73E+05	7.87E+04	7.19E+04
----------------------------	----------	----------	----------	----------	----------

Community Structure (% total PLFA)

Firmicutes (TerBrSats)	27.79	11.08	4.75	8.26	2.72
Proteobacteria (Monos)	23.71	69.68	76.92	71.51	63.99
Anaerobic metal reducers (BrMonos)	4.26	0.00	0.00	0.00	3.24
SRB/Actinomycetes (MidBrSats)	0.00	0.00	0.00	0.00	0.00
General (Nsats)	44.25	17.83	17.46	18.41	27.54
Eukaryotes (polyenoics)	0.00	1.43	0.90	1.83	2.51

Physiological Status (Proteobacteria only)

Slowed Growth	0.00	0.05	0.05	0.00	0.41
Decreased Permeability	0.00	0.14	0.05	0.06	0.00

Legend:

NA = Not Analyzed NS = Not Sampled

Client: Geotechnology, Inc.
 Project: Solutia-biotraps for LTM

MI Project Number: 0591F
 Date Received: 06/18/2011

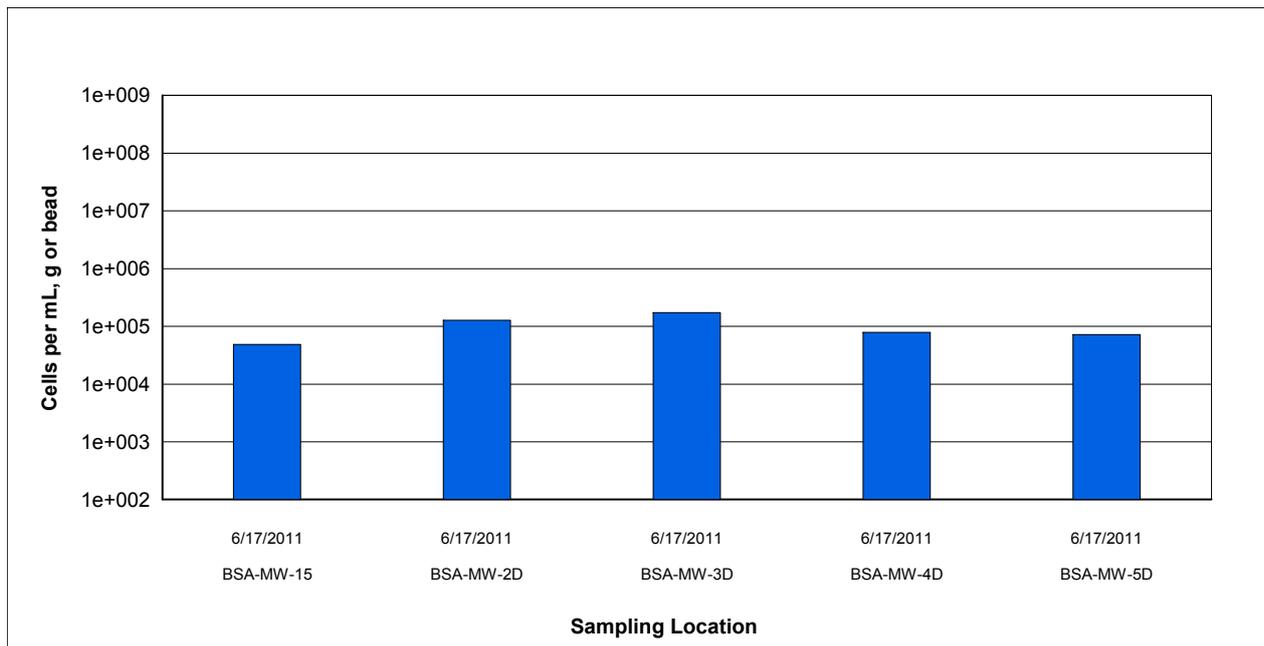


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass

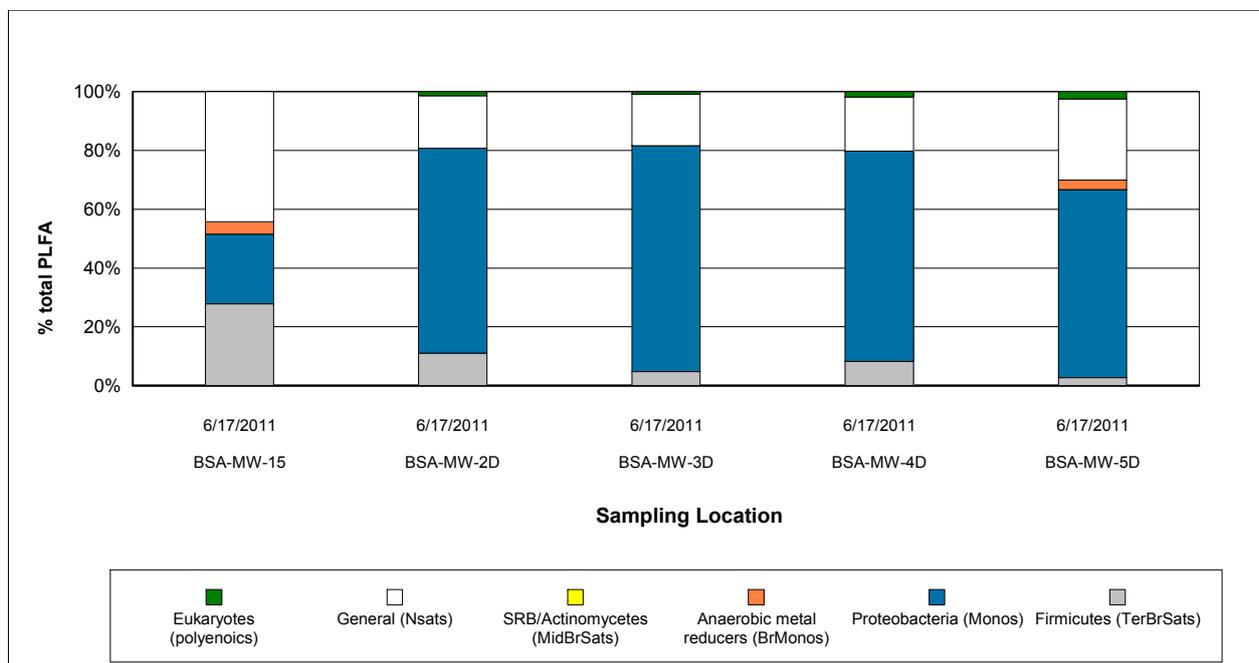


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
 Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: Geotechnology, Inc.
Project: Solutia-biotraps for LTM

MI Project Number: 0591F
Date Received: 06/18/2011

Sample Information

Sample Name:	CPA-MW-1D	CPA-MW-2D	CPA-MW-3D	CPA-MW-4D	CPA-MW-5D
Sample Date:	06/17/2011	06/17/2011	06/17/2011	06/17/2011	06/17/2011
Sample Matrix:	Std. Bio-Trap				
Analyst:	BJ	BJ	BJ	BJ	BJ

Biomass Concentrations

Total Biomass (cells/bead)	CPA-MW-1D	CPA-MW-2D	CPA-MW-3D	CPA-MW-4D	CPA-MW-5D
	1.22E+05	1.92E+05	7.14E+04	6.13E+05	4.29E+04

Community Structure (% total PLFA)

Community Structure	CPA-MW-1D	CPA-MW-2D	CPA-MW-3D	CPA-MW-4D	CPA-MW-5D
Firmicutes (TerBrSats)	0.00	9.03	1.97	4.64	4.05
Proteobacteria (Monos)	54.73	68.37	72.27	61.28	55.87
Anaerobic metal reducers (BrMonos)	0.00	0.84	1.94	1.20	0.00
SRB/Actinomycetes (MidBrSats)	0.00	0.00	0.00	0.00	0.00
General (Nsats)	45.27	20.80	23.83	30.02	34.21
Eukaryotes (polyenoics)	0.00	0.96	0.00	2.85	5.88

Physiological Status (Proteobacteria only)

Physiological Status	CPA-MW-1D	CPA-MW-2D	CPA-MW-3D	CPA-MW-4D	CPA-MW-5D
Slowed Growth	0.00	0.04	0.06	0.00	0.00
Decreased Permeability	0.37	0.17	0.09	0.14	0.00

Legend:

NA = Not Analyzed NS = Not Sampled

Client: Geotechnology, Inc.
 Project: Solutia-biotraps for LTM

MI Project Number: 0591F
 Date Received: 06/18/2011

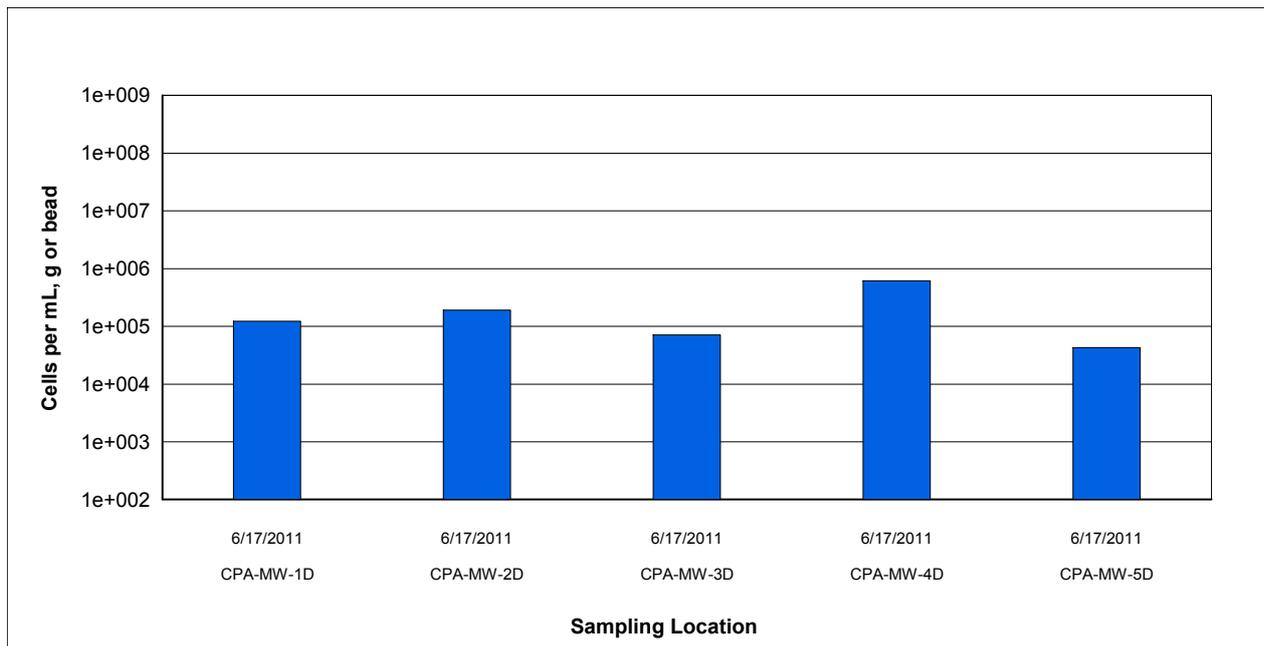


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass

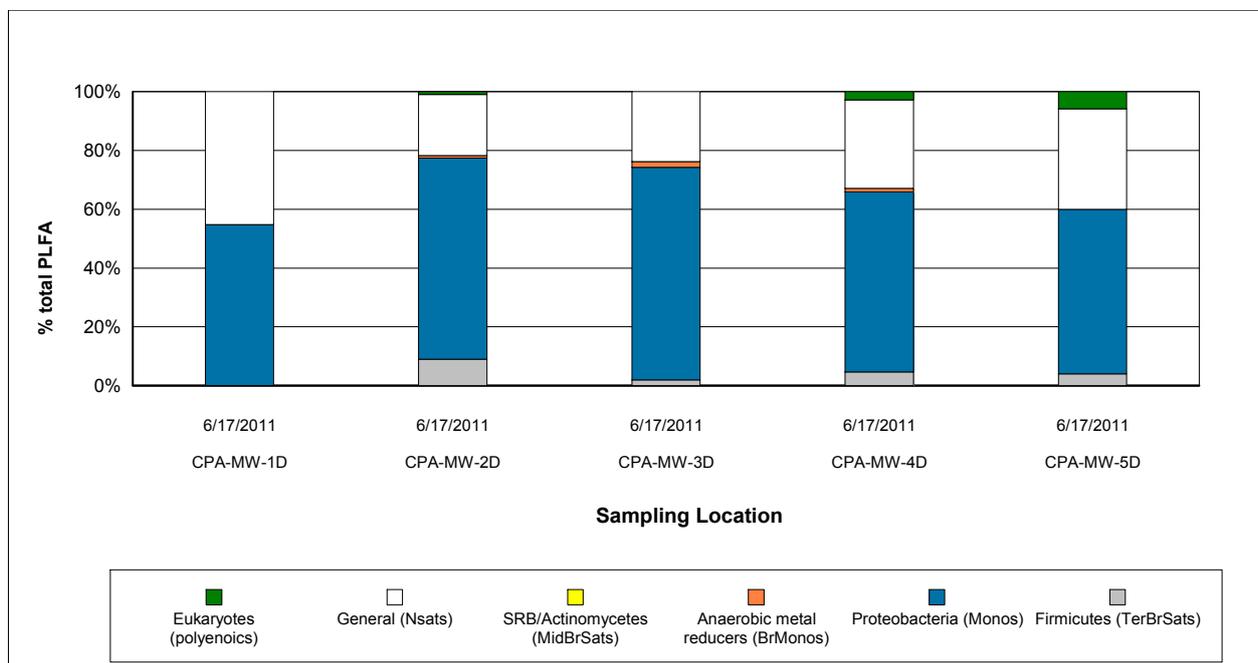


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: Geotechnology, Inc.
Project: Solutia-biotraps for LTM

MI Project Number: 059IF
Date Received: 06/18/2011

Sample Information

Sample Name:	BSA-MW-2D-be nzene	CPA-MW-3D-chl orobenzene
Sample Date:	06/17/2011	06/17/2011
Sample Matrix:	Adv. Bio-Trap	Adv. Bio-Trap
Analyst:	BJ	BJ

Biomass Concentrations

Total Biomass (cells/bead)	3.56E+05	7.54E+04
----------------------------	-----------------	-----------------

Community Structure (% total PLFA)

Firmicutes (TerBrSats)	2.06	0.00
Proteobacteria (Monos)	81.89	73.55
Anaerobic metal reducers (BrMonos)	0.00	0.00
SRB/Actinomycetes (MidBrSats)	0.60	0.00
General (Nsats)	14.81	24.61
Eukaryotes (polyenoics)	0.64	1.83

Physiological Status (Proteobacteria only)

Slowed Growth	0.05	0.00
Decreased Permeability	0.05	0.00

Legend:

NA = Not Analyzed NS = Not Sampled

Client: Geotechnology, Inc.
 Project: Solutia-biotraps for LTM

MI Project Number: 0591F
 Date Received: 06/18/2011

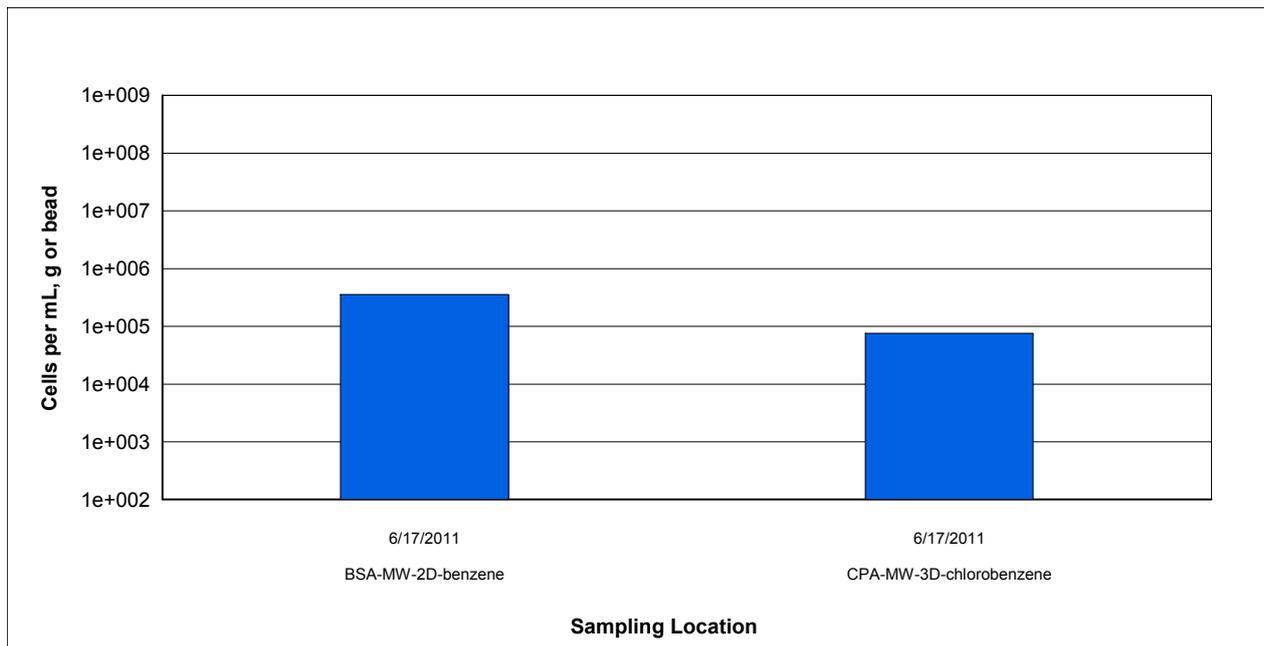


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass

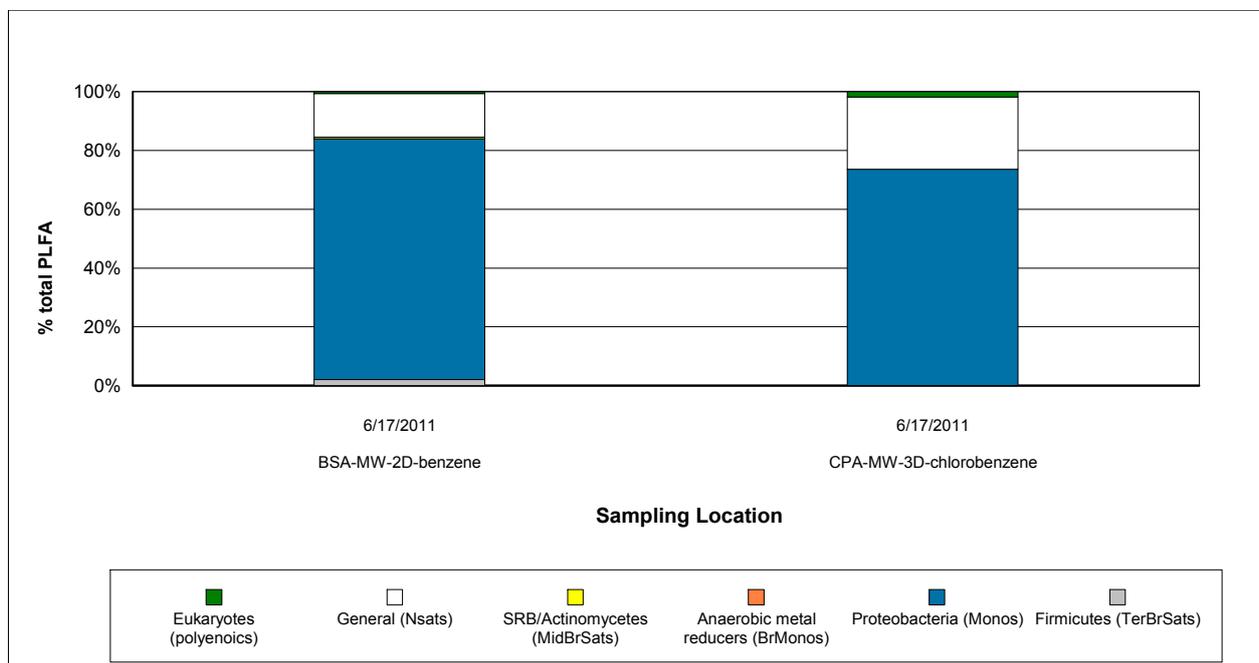


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.



2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Identifier: 059IF

Date Rec: 06/18/2011

Report Date: 07/08/2011

Client Project #: J017210.14

Client Project Name: Solutia-biotraps for LTM

Purchase Order #:

Comments: The total biomass for samples BSA-MW-15 and CPA-MW-5D was below the laboratory PQL.

SITE LOGIC Report

Stable Isotope Probing (SIP) Study

Contact: Duane Kreuger
Address: Geotechnology – St. Louis MO
11816 Lackland Road
St. Louis, MO 63146

Phone: 314-997-7740

Email: d_kreuger@geotechnology.com

MI Identifier: 059IF

Report Date: July 25, 2011

Project: Solutia – BioTraps for LTM

Comments:

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Executive Summary

A Stable Isotope Probing (SIP) study was performed to determine whether biodegradation of benzene and chlorobenzene is occurring under existing site conditions. Bio-Trap® samplers baited with ¹³C labeled benzene or ¹³C labeled chlorobenzene were deployed in monitoring wells BSA-MW-2D and CPA-MW-3D for 29 days. Following field deployment, the Bio-Traps were recovered to quantify ¹³C incorporation into biomass and dissolved inorganic carbon (DIC). A complete summary of the results is provided in Table 1.

- Quantification of ¹³C enriched biomass demonstrated a high level of ¹³C benzene utilization in the sampler BSA-MW-2D although ¹³C incorporation into DIC was low.
- While ¹³C chlorobenzene mineralization was not observed, a low level of incorporation of ¹³C into biomass demonstrated that chlorobenzene biodegradation is occurring in well CPA-MW-3D.
- The SIP results indicated that benzene and chlorobenzene biodegradation is occurring although substantial loss of the ¹³C labeled compounds was not noted.
- A moderate level (~10⁵ cells/bead) of biomass was detected in the ¹³C benzene sampler and a low level in the ¹³C chlorobenzene sampler (~10⁴ cells/bead).

Overview of Approach

Stable Isotope Probing (SIP)

Stable isotope probing (SIP) is an innovative method to track the environmental fate of a “labeled” contaminant of concern to unambiguously demonstrate biodegradation. Two stable carbon isotopes exist in nature – carbon 12 (^{12}C) which accounts for 99% of carbon and carbon 13 (^{13}C) which is considerably less abundant (~1%). With the SIP method, the Bio-Trap[®] sampler is baited with a specially synthesized form of the contaminant containing ^{13}C labeled carbon. Since ^{13}C is rare, the labeled compound can be readily differentiated from the contaminants present at the site. Following deployment, the Bio-Trap[®] is recovered and three approaches are used to conclusively demonstrate biodegradation of the contaminant of concern.

- The loss of the labeled compound provides an estimate of the degradation rate (% loss of ^{13}C).
- Quantification of ^{13}C enriched phospholipid fatty acids (PLFA) indicates incorporation into microbial biomass.
- Quantification of ^{13}C enriched dissolved inorganic carbon (DIC) indicates contaminant mineralization.

Phospholipid Fatty Acids (PLFA): PLFA are a primary component of the membrane of all living cells including bacteria. PLFA decomposes rapidly upon cell death (1, 2), so the total amount of PLFA present in a sample is indicative of the viable biomass. When combined with stable isotope probing (SIP), incorporation of ^{13}C into PLFA is a conclusive indicator of biodegradation.

Some organisms produce “signature” types of PLFA allowing quantification of important microbial functional groups (e.g. iron reducers, sulfate reducers, or fermenters). The relative proportions of the groups of PLFA provide a “fingerprint” of the microbial community. In addition, *Proteobacteria* modify specific PLFA during periods of slow growth or in response to environmental stress providing an index of their health and metabolic activity.

Results

Table 1. Summary of the results obtained from the Bio-Trap® Units. Interpretation guidelines and definitions are found later in the document.

Sample Name	BSA-MW-2D Benzene	CPA-MW-3D Chlorobenzene
¹³C Contaminant Loss		
Benzene Pre-deployment (mg/bd)	1.26	----
Benzene Post-deployment (mg/bd)	1.28	----
Chlorobenzene Pre-deployment (mg/bd)	----	1.20
Chlorobenzene Post-deployment (mg/bd)	----	0.92
Biomass & ¹³C Incorporation		
Total Biomass (Cells/bd)	3.56E+05	7.54E+04
¹³ C Enriched Biomass (Cells/bd)	2.21E+04	6.28E+02
Average PLFA Del (‰)	3753	65
Maximum PLFA Del (‰)	6197	101
¹³C Mineralization		
DIC Del (‰)	28	-39
% ¹³ C	1.12	1.05
Community Structure (% total PLFA)		
Firmicutes (TerBrSats)	2.1	0.0
Proteobacteria (Monos)	81.9	73.6
Anaerobic metal reducers (BrMonos)	0.0	0.0
Actinomycetes (MidBrSats)	0.6	0.0
General (Nsats)	14.8	24.6
Eukaryotes (Polyenoics)	0.6	1.8
Physiological Status (Proteobacteria only)		
Slowed Growth	0.05	0.00
Decreased Permeability	0.05	0.00

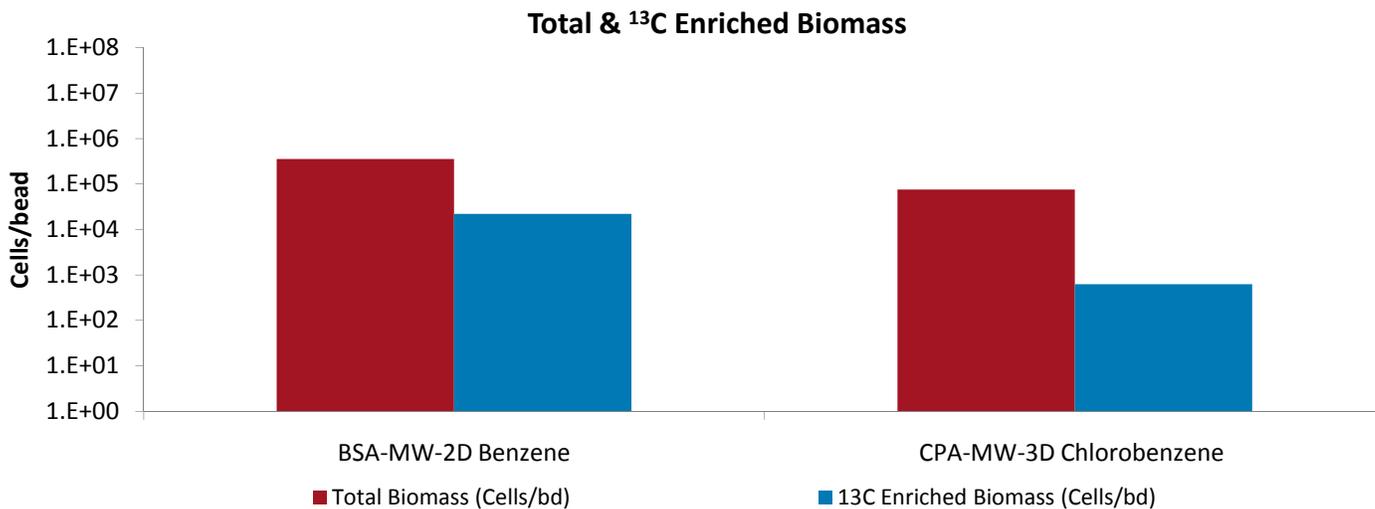


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

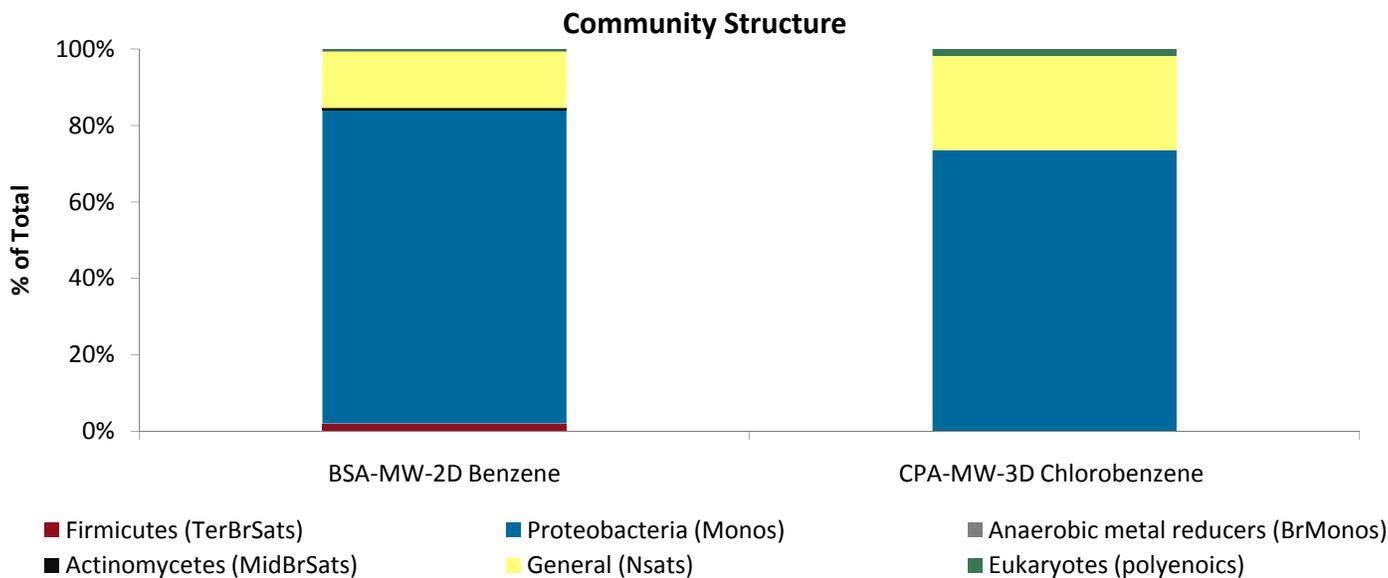


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis. See the table in the interpretation section for detailed descriptions of the structural groups.

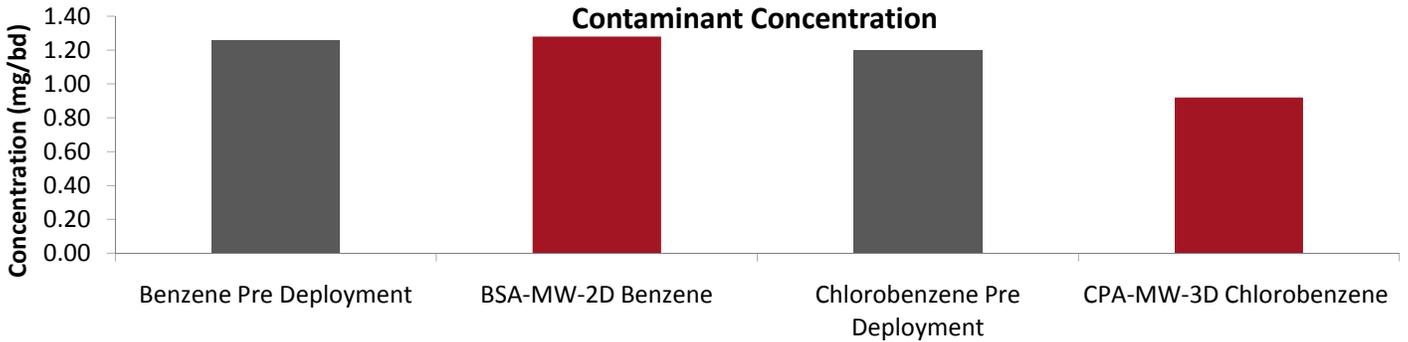


Figure 3. Comparison of Pre-deployment concentrations loaded on Bio-Sep beads to the concentrations detected after incubation.

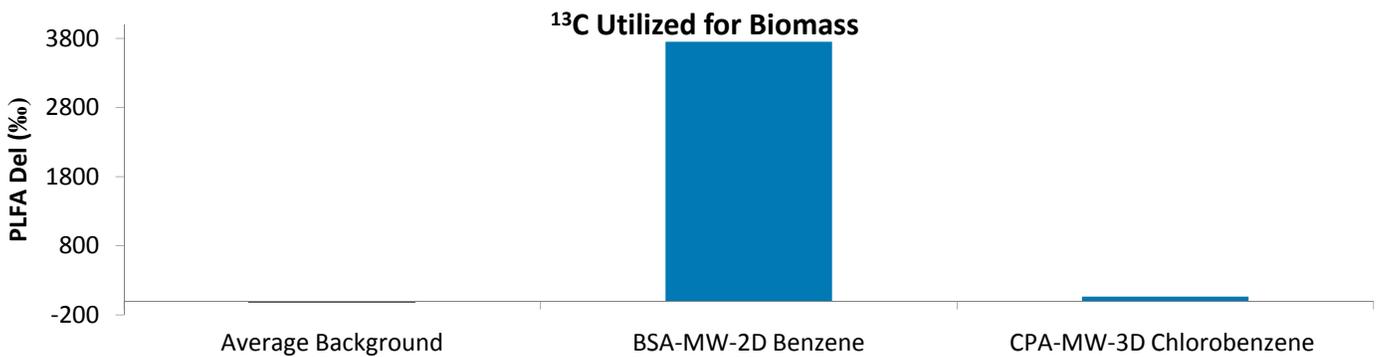


Figure 4. Comparison of the average Del value obtained from PLFA biomarkers from each Bio-Trap® unit to the average background Del observed in samples not exposed to ¹³C enriched compounds.

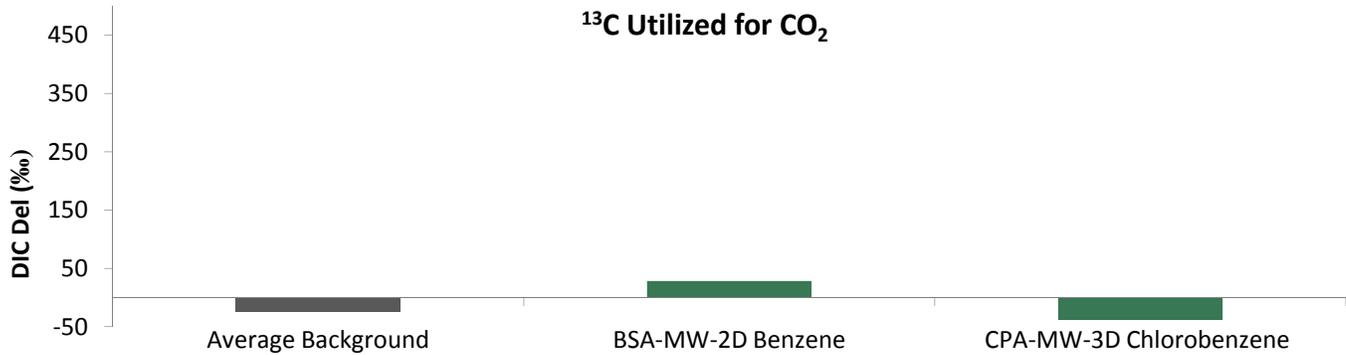


Figure 5. Comparison of the Del value obtained from DIC from each Bio-Trap® unit to the average background Del observed in samples not exposed to ¹³C enriched compounds.

Interpretation

Interpretation of the results of the SIP Bio-Trap[®] study must be performed with due consideration of site conditions, site activities, and the desired treatment mechanism. The following discussion describes interpretation of results in general terms and is meant to serve as a guide.

Contaminant Concentration: Bio-Traps[®] are baited with a ¹³C labeled contaminant of concern and a pre-deployment concentration is determined prior to shipping. Following deployment, Bio-Traps[®] are recovered for analysis including measurement of the concentration of the ¹³C labeled contaminant remaining. Pre- and post-deployment concentrations are used to calculate percent loss.

Biomass Concentrations: PLFA analysis is one of the most reliable and accurate methods available for the determination of viable (live) biomass. Phospholipids break down rapidly upon cell death, so biomass calculations based on PLFA content do not include “fossil” lipids from dead cells. Total biomass (cells/bead) is calculated from total PLFA using a conversion factor of 20,000 cells/pmole of PLFA. When making comparisons between wells, treatments, or over time, differences of one order of magnitude or more are considered significant.

	Total Biomass		
	Low	Moderate	High
	10 ³ to 10 ⁴ cells	10 ⁵ to 10 ⁶ cells	10 ⁷ to 10 ⁸ cells

For SIP studies, the ¹³C enriched PLFA is also determined to conclusively demonstrate contaminant biodegradation and quantify incorporation into biomass as a result of the ¹³C being used for cellular growth. The % ¹³C incorporation (¹³C enriched biomass/total biomass) is also provided in the data summary table, but the value must be interpreted carefully especially when comparing wells or treatments. Typically, biodegradation of a contaminant of concern is performed by a small subset of the total microbial community. For Bio-Traps[®] with large total biomass, the % ¹³C incorporation value could be low despite significant ¹³C labeled biomass and loss of the compound. The % ¹³C incorporation should be viewed in light of total biomass, percent loss, and dissolved inorganic carbon (DIC) results.

¹³C enrichment data is often reported as a del value. The del value is the difference between the isotopic ratio (¹³C/¹²C) of the sample (R_x) and a standard (R_{std}) normalized to the isotopic ratio of the standard (R_{std}) and multiplied by 1,000 (units are parts per thousand, denoted ‰).

R_{std} is the naturally occurring isotopic ratio and is approximately 0.011180 (roughly 1% of naturally occurring carbon is ¹³C). The isotopic ratio, R_x, of PLFA is typically less than the R_{std} under natural conditions, resulting in a del value between -20 and -30‰. For a SIP Bio-Trap[®] study, biodegradation and incorporation of the ¹³C labeled compound into PLFA results in a larger ¹³C/¹²C ratio (R_x) and thus del values greater than under natural conditions. Typical PLFA del values are provided below.

	PLFA Del (‰)		
	Low	Moderate	High
	0 to 100	100 to 1,000	>1,000

Dissolved Inorganic Carbon (DIC): Often, bacteria can utilize the ¹³C labeled compound as both a carbon and energy source. The ¹³C portion used as a carbon source for growth can be incorporated into PLFA as discussed above, while the ¹³C used for energy is oxidized to ¹³CO₂ (mineralized).

¹³C enriched CO₂ data is often reported as a del value as described above for PLFA. Under natural conditions, the R_x of CO₂ is approximately the same as R_{std} (0.01118 or about 1.1% ¹³C). For an SIP Bio-Trap® study, mineralization of the ¹³C labeled contaminant of concern would lead to a greater value of R_x (increased ¹³CO₂ production) and thus a positive del value. As with PLFA, del values between 0 and 100‰ are considered low, values between 100 and 1,000‰ are considered moderate, and values greater than 1,000‰ are considered high. Thus DIC %¹³C are considered low if the value is less than 1.23%, moderate if between 1.23 and 2.24%, and high if greater than 2.24%.

Dissolved Inorganic Carbon (DIC) Del and % ¹³ C		
Low	Moderate	High
0 to 100	100 to 1,000	>1,000
1.11 to 1.23%	1.23 to 2.24%	>2.24%

Community Structure (% total PLFA): Community structure data is presented as a percentage of PLFA structural groups normalized to the total PLFA biomass. The relative proportions of the PLFA structural groups provide a “fingerprint” of the types of microbial groups (e.g. anaerobes, sulfate reducers, etc.) present and therefore offer insight into the dominant metabolic processes occurring at the sample location. Thorough interpretation of the PLFA structural groups depends in part on an understanding of site conditions and the desired microbial biodegradation pathways. For example, an increase in mid chain branched saturated PLFA (MidBrSats), indicative of sulfate reducing bacteria (SRB) and *Actinomyces*, may be desirable at a site where anaerobic BTEX biodegradation is the treatment mechanism, but would not be desirable for a corrective action promoting aerobic BTEX or MTBE biodegradation. The following table provides a brief summary of each PLFA structural group and its potential relevance to bioremediation.

Table 2. Description of PLFA structural groups.

PLFA Structural Group	General classification	Potential Relevance to Bioremediation Studies
Monoenoic (Monos)	Abundant in Proteobacteria (Gram negative bacteria), typically fast growing, utilize many carbon sources, and adapt quickly to a variety of environments.	Proteobacteria is one of the largest groups of bacteria and represents a wide variety of both aerobes and anaerobes. The majority of Hydrocarbon utilizing bacteria fall within the Proteobacteria
Terminally Branched Saturated (TerBrSats)	Characteristic of Firmicutes (Low G+C Gram-positive bacteria), and also found in Bacteriodes, and some Gram-negative bacteria (especially anaerobes).	Firmicutes are indicative of presence of anaerobic fermenting bacteria (mainly <i>Clostridia</i> / <i>Bacteriodes</i> -like), which produce the H ₂ necessary for reductive dechlorination
Branched Monoenoic (BrMonos)	Found in the cell membranes of micro-aerophiles and anaerobes, such as sulfate- or iron-reducing bacteria	In contaminated environments high proportions are often associated with anaerobic sulfate and iron reducing bacteria
Mid-Chain Branched Saturated (MidBrSats)	Common in sulfate reducing bacteria and also Actinobacteria (High G+C Gram-positive bacteria).	In contaminated environments high proportions are often associated with anaerobic sulfate and iron reducing bacteria
Normal Saturated (Nsats)	Found in all organisms.	High proportions often indicate less diverse populations.
Polyenoic	Found in eukaryotes such as fungi, protozoa, algae, higher plants, and animals.	Eukaryotic scavengers will often rise up and prey on contaminant utilizing bacteria

Physiological Status (*Proteobacteria*): Some *Proteobacteria* modify specific PLFA as a strategy to adapt to stressful environmental conditions (3, 4). For example, *cis* monounsaturated fatty acids may be modified to cyclopropyl fatty acids during periods of slowed growth or modified to *trans* monounsaturated fatty acids to decrease membrane permeability in response to environmental stress. The ratio of product to substrate fatty acid thus provides an index of their health and metabolic activity. In general, status ratios greater than 0.25 indicate a response to unfavorable environmental conditions.

Glossary

Del: A Del value is the difference between the isotopic ratio ($^{13}\text{C}/^{12}\text{C}$) of the sample (R_x) and a standard (R_{std}) normalized to the isotopic ratio of the standard (R_{std}) and multiplied by 1,000 (units are parts per thousand denoted ‰).

$$\text{Del} = (R_x - R_{\text{std}}) / R_{\text{std}} \times 1000$$

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