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May 19, 2011

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

VIA FEDEX

Re: PCB Groundwater Quality Assessment Program
1st Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the PCB Groundwater Quality Assessment Program 1st 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,

Gerald M. Rinaldi
Manager, Remediation Services

Enclosure

cc: Distribution List

DISTRIBUTION LIST

PCB Groundwater Quality Assessment Program
1st Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

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FIRST QUARTER 2011
DATA REPORT
PCB GROUNDWATER QUALITY ASSESSMENT 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. J017210.10

May 18, 2011

J017210.10

FIRST QUARTER 2011
DATA REPORT
PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

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FIRST QUARTER 2011
DATA REPORT
PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

1.0 INTRODUCTION

This report presents the results of the 1st Quarter 2011 (1Q11) sampling event performed at the Solutia Inc. (Solutia) W.G. Krummrich Facility located in Sauget, Illinois (Site). This sampling event was conducted in accordance with the Revised PCB Groundwater Quality Assessment Program Work Plan (Solutia 2009). The Site location map is presented in Figure 1.

The PCB Groundwater Quality Assessment Program well network consists of ten monitoring wells, as follows (Figure 2):

- Two source area wells, PMA-MW-4S and PMA-MW-4D, are screened in the Shallow Hydrogeologic Unit (SHU) (designated with an "S") and Deep Hydrogeologic Unit (DHU) (designated with a "D"), respectively.

- Three well clusters (PMA-MW-1S/M, PMA-MW-2S/M and PMA-MW-3S/M) are located down-gradient of the source area. These clusters include wells screened in the SHU and Middle Hydrogeologic Unit (MHU) (designated with an "M").

- Two individual wells designated PMA-MW-5M and PMA-MW-6D are located further down-gradient of the source area, with PMA-MW-5M screened in the MHU and PMA-MW-6D screened in the DHU.

Groundwater samples were collected from the ten monitoring wells during the 1Q11 sampling event.

Field sampling activities were conducted in accordance with the procedures outlined in the Revised PCB Groundwater Quality Assessment Program Work Plan, including the collection of appropriate quality assurance and quality control (QA/QC) samples. The following section summarizes the field investigative procedures.

2.0 FIELD PROCEDURES

Geotechnology, Inc. (Geotechnology) conducted the 1Q11 PCB Groundwater Quality Assessment Program field activities between February 24 and 25, 2011.

Groundwater Level Measurements. An oil/water interface probe was used to measure depth to static groundwater levels and determine the presence of non-aqueous phase liquids (NAPL) in the PCB Groundwater Quality Assessment Program well network. Periodically, well PMA-MW-4S has contained measurable DNAPL, however none was observed in this well during the first quarter sampling event. 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 PCB Groundwater Quality Assessment Program Work Plan.

Well gauging information for the 1Q11 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 MHU and 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 250 to 333 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 five minutes. Purging of a well was considered complete when the following water quality parameters remained stable over three consecutive flow-thru 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-thru cell was bypassed to allow for collection of uncompromised groundwater. Consistent with the work plan, samples were collected at a flow rate less than or equal to the rate at which stabilization was achieved.

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%, complying with the work plan. All samples were submitted to TestAmerica for PCB analysis.

Each sample was labeled immediately following collection. The sample identification system used for each sample involved the following nomenclature "PMA-MW#-MMYY-QAC" where:

- PMA-MW# – Monitoring Well Location (PCB Manufacturing Area (PMA)) and Number
- MMYY – Month and year of sampling quarter, e.g.: February (first quarter), 2011 (1Q11)
- QAC – denotes QA/QC samples (when applicable):
  - EB – equipment blank
  - AD – analytical duplicate
  - 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 or below approximately 4^{o}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, 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 overnight delivery service (FedEx). Field sampling data sheets are included in Appendix A, COC forms are included in Appendix B.

3.0 LABORATORY PROCEDURES

Samples were analyzed by TestAmerica for PCBs using Method 680.

4.0 QUALITY ASSURANCE

Analytical data were reviewed for quality and completeness, as described in the Revised PCB Groundwater Quality Assessment Work Plan (Solutia 2009). 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 samples (ten investigative groundwater samples, one field duplicate pair, one MS/MSD, one equipment blank) were prepared and analyzed by TestAmerica for PCBs. Results for the various analyses were submitted as sample delivery group (SDG) KPM.

The samples contained in SDG KPM041 are listed below:

SDG KPM041

PMA-MW-1M-0211
PMA-MW-01S-0211
PMA-MW-01S MS-0211
PMA-MW-01S MSD-0211
PMA-MW-02M-0211
PMA-MW-02M AD-0211
PMA-MW-02S-0211
PMA-NW-02S EB-0211
PMA-MW-3M-0211
PMA-MW-3S-0211
PMA-MW-04D-0211
PMA-MW-04S-0211
PMA-MW-5M-0211
PMA-MW-6D-0211

Evaluation of the analytical data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2008) and the Revised PCB Groundwater Quality Assessment Work Plan (Solutia 2009). Based on the above mentioned criteria, results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on MS/MSD, LCS, surrogate and field duplicate data were achieved for this SDG to meet the project objectives. Completeness, which is defined to be the percentage of analytical results which are judged to be valid, including estimated detect (J) data was 100 percent.

5.0 OBSERVATIONS

This section presents a brief summary of the groundwater analytical results from the 1Q11 PCB Groundwater Quality Assessment sampling event. A summary of the laboratory results is provided in Table 2 and the entire laboratory data package is provided in Appendix D.

SHALLOW HYDROGEOLOGIC UNIT

Historically, measurable DNAPL has been periodically observed in the source area SHU monitoring well PMA-MW-4S during previous sampling events however, none was observed in this well during the first quarter sampling event. Laboratory analytical results for monitoring well PMA-MW-4S, located in the Former PCB Manufacturing Area, indicated a total PCB concentration of 1,273 µg/L for the 1Q11 event. PCBs were detected in all three of the down-gradient PCB Groundwater Quality Assessment Program SHU monitoring wells at total concentrations of 0.13 µg/L (PMA-MW-1S), 0.12 µg/L (PMA-MW-2S), and 0.71 µg/L (PMA-MW-3S). Such data do not indicate that PCBs in the SHU are attenuating over the 300 to 400 ft distance between PMA-MW-4S and the three downgradient monitoring wells. PCB sampling results for the SHU are presented on Figure 4.

MIDDLE/DEEP HYDROGEOLOGIC UNIT

Laboratory analytical results for monitoring well PMA-MW-4D, located in the Former PCB Manufacturing Area, indicated a total PCB concentration of 0.35 µg/L for the 1Q11 sampling event. PCBs were also detected in four of the five downgradient monitoring wells at concentrations of 0.59 µg/L (PMA-MW-1M), 4.04/3.92 µg/L (PMA-MW-2M/duplicate), 1.2 µg/L (PMA-MW-3M), and 0.22 µg/L (PMA-MW-6D). Figure 5 displays the 1Q11 PCB sampling results for the MHU/DHU.

The 1Q11 sampling event was the eleventh event conducted under the PCB Groundwater Quality Assessment Program. Mann-Kendall trend analyses data forms of total PCBs in unfiltered samples of groundwater from monitoring wells within (PMA-MW-4D) or downgradient of (PMA-MW-1M, -2M, -3S, -3M, and -6D) the former PCB Manufacturing Area are presented in Appendix A. The data indicates an upward trend in PCB concentrations in PMA-MW-1M. The data does not indicate an upward trend in the other wells.

6.0 REFERENCES

Solutia Inc, 2009. Revised PCB Groundwater Quality Assessment Program Work Plan, W.G. Krummrich Facility, Sauget, IL, Prepared by URS Corporation, May 2009.

U.S. Environmental Protection Agency (USEPA), 2008 Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review.

TABLE 1

MONITORING WELL GAUGING INFORMATION

Well ID	Construction Details						February 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)									
PMA-MW-1S	410.30	410.06	20.18	25.18	390.12	385.12	13.71	24.94	396.35
PMA-MW-2S	412.27	411.66	22.94	27.94	389.33	384.33	15.96	27.36	395.70
PMA-MW-3S	412.37	412.06	22.71	27.71	389.66	384.66	16.26	27.46	395.80
PMA-MW-4S	411.09	410.43	20.99	25.99	390.10	385.10	14.31	25.40	396.12
Middle Hydrogeologic Unit (MHU 380-350 feet NAVD 88)									
PMA-MW-1M	410.32	410.08	54.54	59.54	355.78	350.78	14.56	59.68	395.52
PMA-MW-2M	412.26	411.93	56.87	61.87	355.39	3.50.39	16.26	61.60	395.67
PMA-MW-3M	412.36	412.10	57.07	62.07	355.29	350.29	16.33	61.88	395.77
PMA-MW-5M	411.27	410.97	52.17	57.17	359.10	354.10	15.77	57.05	395.20
PS-MW-1	409.37	412.59	37.78	42.78	371.59	366.59	15.77	46.11	396.82
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)									
BSA-MW-2D	412.00	415.13	68.92	73.92	343.08	338.08	22.91	77.09	392.22
BSA-MW-3D	412.91	415.74	107.02	112.02	305.89	300.89	25.98	114.94	389.76
BSA-MW-4D	425.00	424.69	118.54	123.54	306.46	301.46	31.01	123.36	393.68
BSA-MW-5D	420.80	420.49	115.85	120.85	304.95	299.95	24.61	121.03	395.88
CPA-MW-1D	408.62	408.32	66.12	71.12	342.50	337.50	12.49	70.81	395.83
CPA-MW-2D	408.51	408.20	96.96	104.96	308.55	303.55	15.11	104.71	393.09
CPA-MW-3D	410.87	410.67	108.20	113.20	302.67	297.67	17.89	112.95	392.78
CPA-MW-4D	421.57	421.20	116.44	121.44	305.13	300.13	32.24	121.03	388.96
CPA-MW-5D	411.03	413.15	107.63	112.63	303.40	298.40	25.36	114.74	387.79
DNAPL-K-1	413.07	415.56	108.20	123.20	304.87	289.87	18.72	123.30	396.84
DNAPL-K-2	407.94	407.72	97.63	112.63	310.31	295.31	12.04	112.47	395.68
DNAPL-K-3	412.13	411.91	104.80	119.80	307.33	292.33	15.77	119.31	396.14
DNAPL-K-4	409.48	409.15	102.55	117.55	306.93	291.93	13.68	114.49	395.47
DNAPL-K-5	412.27	411.91	102.15	117.15	310.12	295.12	13.89	116.66	398.02
DNAPL-K-6	410.43	410.09	102.47	117.47	307.96	292.96	14.92	117.05	395.17
DNAPL-K-7	408.32	407.72	100.40	115.40	307.92	292.92	12.95	115.42	394.77
DNAPL-K-8	408.56	411.38	102.65	117.65	305.91	290.91	17.36	117.72	394.02
DNAPL-K-9	406.45	405.97	97.42	112.42	309.03	294.03	16.85	111.28	389.12
DNAPL-K-10	413.50	413.25	105.43	120.43	308.07	293.07	16.97	120.37	396.28
DNAPL-K-11	412.20	411.78	105.46	120.46	306.74	291.74	17.06	120.34	394.72
GM-9C	409.54	411.21	88.00	108.00	321.54	301.54	15.86	108.50	395.35

TABLE 1

MONITORING WELL GAUGING INFORMATION

Well ID	Construction Details						February 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 88 - Bedrock)									
GWE-1D (PIEZ-1D)	412.80	415.60	117.00	127.00	295.80	285.80	31.12	128.51	384.48
GWE-2D (PIEZ-2D)	417.45	417.14	127.00	137.00	290.45	280.45	30.66	136.80	386.48
GWE-4D (TRA3-PZADHU)	406.05	405.74	74.00	80.00	332.05	326.05	14.55	78.81	391.19
GWE-10D (PIEZ 6D)	410.15	412.87	102.50	112.50	307.65	297.65	19.26	114.91	393.61
GWE-14D (TRA5-PZCDHU)	420.47	422.90	90.00	96.00	330.47	324.47	34.61	96.81	388.29
PMA-MW-4D	411.22	410.88	68.84	73.84	342.38	337.38	14.80	73.42	396.08
PMA-MW-6D	407.63	407.32	96.49	101.49	311.14	306.14	13.08	101.39	394.24
PSMW-6	404.11	406.63	99.80	104.80	304.31	299.31	16.56	109.95	390.07
PSMW-9	403.92	403.52	100.40	105.40	303.52	298.52	10.59	105.23	392.93
PSMW-10	409.63	412.18	101.23	106.23	308.40	303.40	24.71	111.42	387.47
PSMW-13	405.80	405.53	106.08	111.08	299.72	294.72	15.56	110.71	389.97
PSMW-17	420.22	423.26	121.25	126.25	298.97	293.97	37.82	134.14	385.44

TABLE 2

J017210.10
May 2011

GROUNDWATER ANALYTICAL DETECTIONS

Sample ID	Sample Date	Units	Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Shallow Hydrologic Unit												
PMA-MW-1S-0211	02/25/11	µg/L	<0.10	<0.10	**0.13**	<0.20	<0.20	<0.20	<0.30	<0.30	<0.50*	<0.50
PMA-MW-2S-0211	02/25/11	µg/L	<0.098	<0.098	**0.12**	<0.20	<0.20	<0.20	<0.29	<0.29	<0.49*	<0.49
PMA-MW-3S-0211	02/24/11	µg/L	**0.31**	**0.18**	**0.22**	<0.20	<0.20	<0.20	<0.31	<0.31	<0.51*	<0.51
PMA-MW-4S-0211	02/24/11	µg/L	**2.7**	**25**	**120**	**230**	**200**	**340**	**300**	**50**	**5.3***	<5.0
Middle / Deep Hydrologic Unit												
PMA-MW-1M-0211	02/24/11	µg/L	**0.59**	<0.11	<0.11	<0.21	<0.21	<0.21	<0.32	<0.32	<0.53*	<0.53
PMA-MW-2M-0211	02/25/11	µg/L	**3.8**	**0.1**	**0.14**	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48*	<0.48
PMA-MW-2M-0211-AD	02/25/11	µg/L	**3.8**	<0.095	**0.12**	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48*	<0.48
PMA-MW-3M-0211	02/24/11	µg/L	**0.73**	<0.098	**0.21**	**0.26**	<0.20	<0.20	<0.30	<0.30	<0.49*	<0.49
PMA-MW-4D-0211	02/24/11	µg/L	**0.18**	**0.17**	<0.11	<0.22	<0.22	<0.22	<0.33	<0.33	<0.55*	<0.55
PMA-MW-5M-0211	02/24/11	µg/L	<0.098	<0.098	<0.098	<0.20	<0.20	<0.20	<0.29	<0.29	<0.49*	<0.49
PMA-MW-6D-0211	02/24/11	µg/L	**0.22**	<0.10	<0.10	<0.20	<0.20	<0.20	<0.31	<0.31	<0.51*	<0.51

Notes:
µg/L = micrograms per liter
< = Result is non-detect, less than the reporting limit
AD = Analytical Duplicate
BOLD indicates concentration greater than the reporting limit
* = indicates LCS or LCD exceeds the control limits

Table 3
Monitoring Well PMA MW-1M Mann-Kendall Trend Analysis

W.G.Krummrich Facility PCB Mfg. Area Monitoring Well MW-1M Mann-Kendall Trend Analysis																					
	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	Event 11	Event 12	Event 13	Event 14	Event 15	Event 16	Event 17	Event 18	Event 19	Event 20	Row
	2Q06	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11	Total
Total PCBs, µg/L	ND	0.24	0.21	0.17	0.26	0.29	48	ND	0.18	0.38	0.26	0.16	0.21	0.27	0.27	0.20	ND	0.29	0.31	0.59	
Compare to Event 1		1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	17
Compare to Event 2			-1	-1	1	1	1	-1	-1	1	1	-1	-1	1	1	-1	-1	1	1	1	2
Compare to Event 3				-1	1	1	1	-1	-1	1	1	-1	0	1	1	-1	-1	1	1	1	4
Compare to Event 4					1	1	1	-1	1	1	1	-1	1	1	1	1	-1	1	1	1	10
Compare to Event 5						1	1	-1	-1	1	0	-1	-1	1	1	-1	-1	1	1	1	2
Compare to Event 6							1	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	0	1	1	-5
Compare to Event 7								-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-13
Compare to Event 8									1	1	1	1	1	1	1	1	0	1	1	1	11
Compare to Event 9										1	1	-1	1	1	1	1	-1	1	1	1	7
Compare to Event 10											-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-8
Compare to Event 11												-1	-1	1	1	-1	-1	1	1	1	1
Compare to Event 12													1	1	1	1	-1	1	1	1	6
Compare to Event 13														1	1	-1	-1	1	1	1	3
Compare to Event 14															0	-1	-1	1	1	1	1
Compare to Event 15																-1	-1	1	1	1	1
Compare to Event 16																	-1	1	1	1	2
Compare to Event 17																		1	1	1	3
Compare to Event 18																			1	1	2
Compare to Event 19																				1	1

Mann-Kendall Statistic (S)	**47**
90 % Confidence Mann-Kendall Statistic	**42**

Table 4
Monitoring Well PMA MW-2M Mann-Kendall Trend Analysis

W.G.Krummrich Facility PCB Mfg. Area Monitoring Well MW-2M Mann-Kendall Trend Analysis																					
	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	Event 11	Event 12	Event 13	Event 14	Event 15	Event 16	Event 17	Event 18	Event 19	Event 20	Row
	2Q06	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11	Total
Total PCBs, µg/L	2.3	2.4	2.8	2.1	3.3	2.5	3.1	1.7	3.0	4.3	2.5	2.9	4.14	3.1	2.7	2.4	3.9	2.25	2.10	4.04	
Compare to Event 1		1	1	-1	1	1	1	-1	1	1	1	1	1	1	1	1	1	-1	-1	1	11
Compare to Event 2			1	-1	1	1	1	-1	1	1	1	1	1	1	1	0	1	-1	-1	1	9
Compare to Event 3				-1	1	-1	1	-1	1	1	-1	1	1	1	-1	-1	1	-1	-1	1	1
Compare to Event 4					1	1	1	-1	1	1	1	1	1	1	1	1	1	1	0	1	13
Compare to Event 5						-1	-1	-1	-1	1	-1	-1	1	-1	-1	-1	1	-1	-1	1	-7
Compare to Event 6							1	-1	1	1	0	1	1	1	1	-1	1	-1	-1	1	5
Compare to Event 7								-1	-1	1	-1	-1	1	0	-1	-1	1	-1	-1	1	-4
Compare to Event 8									1	1	1	1	1	1	1	1	1	1	1	1	12
Compare to Event 9										1	-1	-1	1	1	-1	-1	1	-1	-1	1	-1
Compare to Event 10											-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-10
Compare to Event 11												1	1	1	1	-1	1	-1	-1	1	3
Compare to Event 12													1	1	-1	-1	1	-1	-1	1	0
Compare to Event 13														-1	-1	-1	-1	-1	-1	-1	-7
Compare to Event 14															-1	-1	1	-1	-1	1	-2
Compare to Event 15																-1	1	-1	-1	1	-1
Compare to Event 16																	1	-1	-1	1	0
Compare to Event 17																		-1	-1	1	-1
Compare to Event 18																			-1	1	0
Compare to Event 19																				1	1

Mann-Kendall Statistic (S)	**22**
90 % Confidence Mann-Kendall Statistic	**42**

Table 5
Monitoring Well PMA MW-3S Mann-Kendall Trend Analysis

W.G.Krummrich Facility PCB Mfg. Area Monitoring Well MW-3S Mann-Kendall Trend Analysis																				
	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	Event 11	Event 12	Event 13	Event 14	Event 15	Event 16	Event 17	Event 18	Event 19	Event 20	Row
	2Q06	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11	Total
Total PCBs, µg/L	0.66	0.32	0.2	0.35	0.8	0.3	0.21	0.25	0.64	0.26	0.24	0.79	ND	0.34	2.0	ND	0.63	0.28	0.68	0.71	
Compare to Event 1		-1	-1	-1	1	-1	-1	-1	-1	-1	-1	1	-1	-1	1	-1	-1	-1	1	1	-9
Compare to Event 2			-1	1	1	-1	-1	-1	1	-1	-1	1	-1	1	1	-1	1	-1	1	1	0
Compare to Event 3				1	1	1	1	1	1	1	1	1	-1	1	1	-1	1	1	1	1	13
Compare to Event 4					1	-1	-1	-1	1	-1	-1	1	-1	-1	1	-1	1	-1	1	1	-2
Compare to Event 5						-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-13
Compare to Event 6							-1	-1	1	-1	-1	1	-1	1	1	-1	1	-1	1	1	0
Compare to Event 7								1	1	1	1	1	-1	1	1	-1	1	1	1	1	9
Compare to Event 8									1	1	-1	1	-1	1	1	-1	1	1	1	1	6
Compare to Event 9										-1	-1	1	-1	-1	1	-1	-1	-1	1	1	-3
Compare to Event 10											-1	1	-1	1	1	-1	1	1	1	1	4
Compare to Event 11												1	-1	1	1	-1	1	1	1	1	5
Compare to Event 12													-1	-1	1	-1	-1	-1	-1	-1	-6
Compare to Event 13														1	1	0	1	1	1	1	6
Compare to Event 14															1	-1	1	-1	1	1	2
Compare to Event 15																-1	-1	-1	-1	-1	-5
Compare to Event 16																	1	1	1	1	4
Compare to Event 17																		-1	1	1	1
Compare to Event 18																			1	1	2
Compare to Event 19																				1	1

Mann-Kendall Statistic (S)	**15**
90 % Confidence Mann-Kendall Statistic	**42**

Table 6
Monitoring Well PMA MW-3M Mann-Kendall Trend Analysis

W.G.Krummrich Facility PCB Mfg. Area Monitoring Well MW-3M Mann-Kendall Trend Analysis																					
	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	Event 11	Event 12	Event 13	Event 14	Event 15	Event 16	Event 17	Event 18	Event 19	Event 20	Row
	2Q06	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11	Total
Total PCBs, µg/L	5.18	1.9	ND	0.77	ND	0.86	0.76	0.39	0.92	1.3	0.71	1.4	1.3	0.85	0.85	0.87	0.82	0.75	0.73	1.20	
Compare to Event 1		-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-19
Compare to Event 2			-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-18
Compare to Event 3				1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
Compare to Event 4					-1	1	-1	-1	1	1	-1	1	1	1	1	1	1	-1	-1	1	4
Compare to Event 5						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
Compare to Event 6							-1	-1	1	1	-1	1	1	-1	-1	1	-1	-1	-1	1	-2
Compare to Event 7								-1	1	1	-1	1	1	1	1	1	1	-1	-1	1	5
Compare to Event 8									1	1	1	1	1	1	1	1	1	1	1	1	12
Compare to Event 9										1	-1	1	1	-1	-1	-1	-1	-1	-1	1	-3
Compare to Event 10											-1	1	0	-1	-1	-1	-1	-1	-1	-1	-7
Compare to Event 11												1	1	1	1	1	1	1	1	1	9
Compare to Event 12													-1	-1	-1	-1	-1	-1	-1	-1	-8
Compare to Event 13														-1	-1	-1	-1	-1	-1	-1	-7
Compare to Event 14															0	1	-1	-1	-1	1	-1
Compare to Event 15																1	-1	-1	-1	1	-1
Compare to Event 16																	-1	-1	-1	1	-2
Compare to Event 17																		-1	-1	1	-1
Compare to Event 18																			-1	1	0
Compare to Event 19																				1	1

Mann-Kendall Statistic (S)	**-7**
90 % Confidence Mann-Kendall Statistic	**-42**

Table 7
Monitoring Well PMA MW-4D Mann-Kendall Trend Analysis

W.G.Krummrich Facility PCB Mfg. Area Monitoring Well MW-4D Mann-Kendall Trend Analysis																			
	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	Event 11	Event 12	Event 13	Event 14	Event 15	Event 16	Event 17	Event 18	Event 19	Row
	2Q06	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11	Total
Total PCBs, µg/L	0.34	0.10	2.07	0.33	0.50	0.35	0.23	0.27	0.44	0.27	2.73	0.59	0.37	0.61	0.54	0.72	0.42	0.31	0.35	
Compare to Event 1		-1	1	-1	1	1	-1	-1	1	-1	1	1	1	1	1	1	1	-1	1	6
Compare to Event 2			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Compare to Event 3				-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-14
Compare to Event 4					1	1	-1	-1	1	-1	1	1	1	1	1	1	1	-1	1	7
Compare to Event 5						-1	-1	-1	-1	-1	1	1	-1	1	1	1	-1	-1	-1	-4
Compare to Event 6							-1	-1	1	-1	1	1	1	1	1	1	1	-1	1	5
Compare to Event 7								1	1	1	1	1	1	1	1	1	1	1	1	12
Compare to Event 8									1	0	1	1	1	1	1	1	1	1	1	10
Compare to Event 9										-1	1	1	-1	1	1	1	-1	-1	-1	0
Compare to Event 10											1	1	1	1	1	1	1	1	1	9
Compare to Event 11												-1	-1	-1	-1	-1	-1	-1	-1	-8
Compare to Event 12													-1	1	-1	1	-1	-1	-1	-3
Compare to Event 13														1	1	1	1	-1	-1	2
Compare to Event 14															-1	1	-1	-1	-1	-3
Compare to Event 15																1	-1	-1	-1	-2
Compare to Event 16																	-1	-1	-1	-3
Compare to Event 17																		-1	-1	-2
Compare to Event 18																			1	1

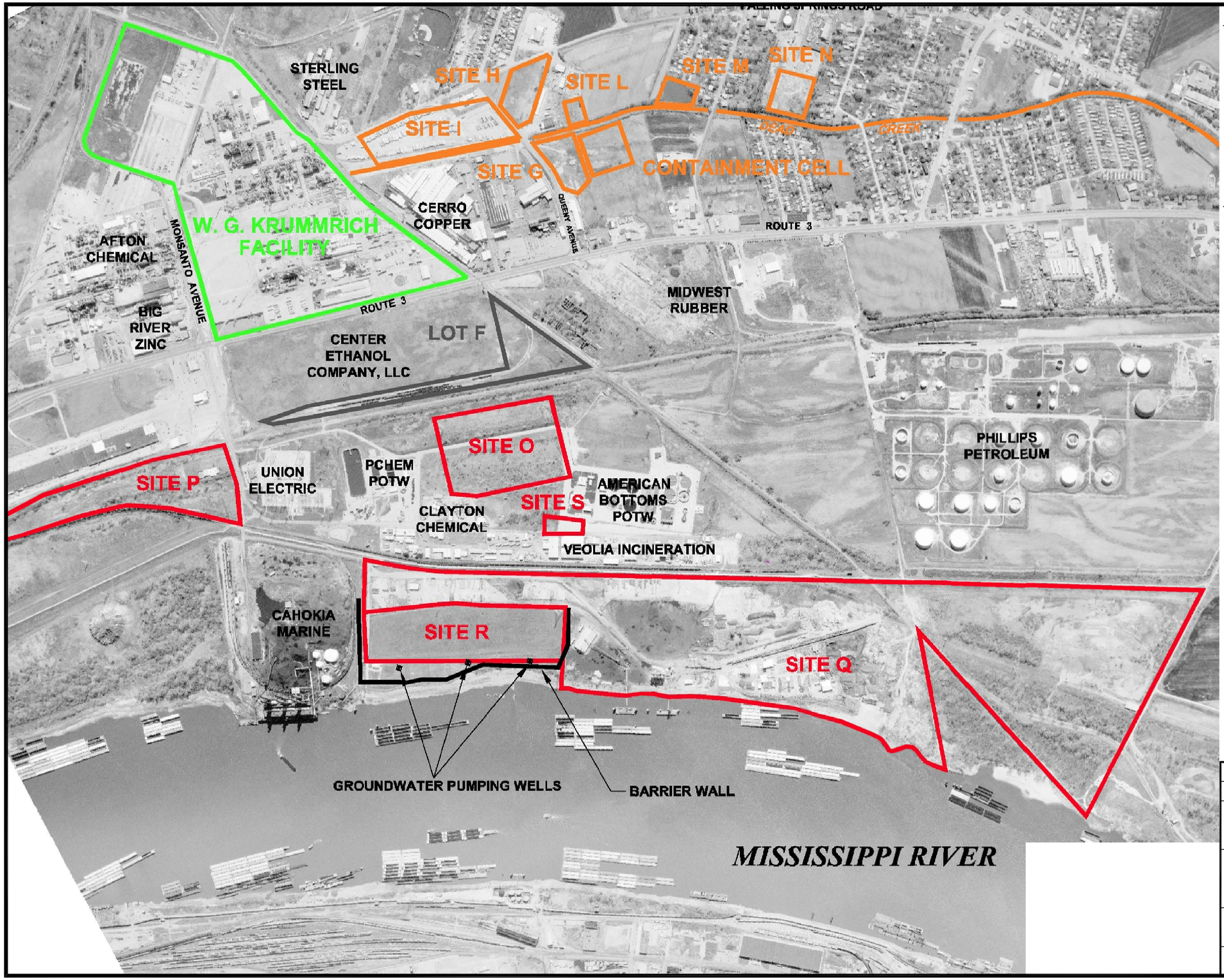
Mann-Kendall Statistic (S)	30

90 % Confidence Mann-Kendall Statistic	39

Table 8
Monitoring Well PMA MW-6D Mann-Kendall Trend Analysis

W.G.Krummrich Facility Well PMA MW-6D Mann-Kendall Trend Analysis												
	Event 1 3Q08	Event 2 4Q08	Event 3 1Q09	Event 4 2Q09	Event 5 3Q09	Event 6 4Q09	Event 7 1Q10	Event 8 2Q10	Event 9 3Q10	Event 10 4Q10	Event 11 1Q11	Row Total
Total PCBs, ug/L	0.21	0.43	0.32	0.29	0.20	0.30	0.19	0.33	0.10	0.65	0.22	
Compare to Event 1		1	1	1	-1	1	-1	1	-1	1	1	4
Compare to Event 2			-1	-1	-1	-1	-1	-1	-1	1	-1	-7
Compare to Event 3				-1	-1	-1	-1	1	-1	1	-1	-4
Compare to Event 4					-1	1	-1	1	-1	1	-1	-1
Compare to Event 5						1	-1	1	-1	1	1	2
Compare to Event 6							-1	1	-1	1	-1	-1
Compare to Event 7								1	-1	1	1	2
Compare to Event 8									-1	1	-1	-1
Compare to Event 9										1	1	2
Compare to Event 10											-1	-1

Mann-Kendall Statistic (S)	**-5**
90 % Confidence Mann-Kendall Statistic	**-19**



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

N

0 1,000 2,000

SCALE IN FEET

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 04-15-11	Date: 04-15-11	Date: 04-15-11

GEOTECHNOLOGY INC
FROM THE GROUND UP

1Q 2011
PCB Monitoring Program
Sauget, Illinois

SITE LOCATION MAP

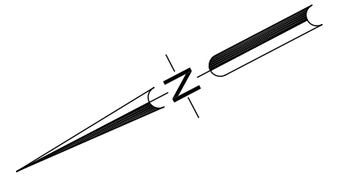
Project Number J017210.10	PLATE 1

NOTES:

1. Plan adapted from a drawing titled "Former PCB Manufactoring Area Monitoring Well Locations" provided by URS.

LEGEND:

Monitoring Well Location



0 300 600

SCALE IN FEET

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 04-15-11	Date: 04-15-11	Date: 04-15-11

GEOTECHNOLOGY INC
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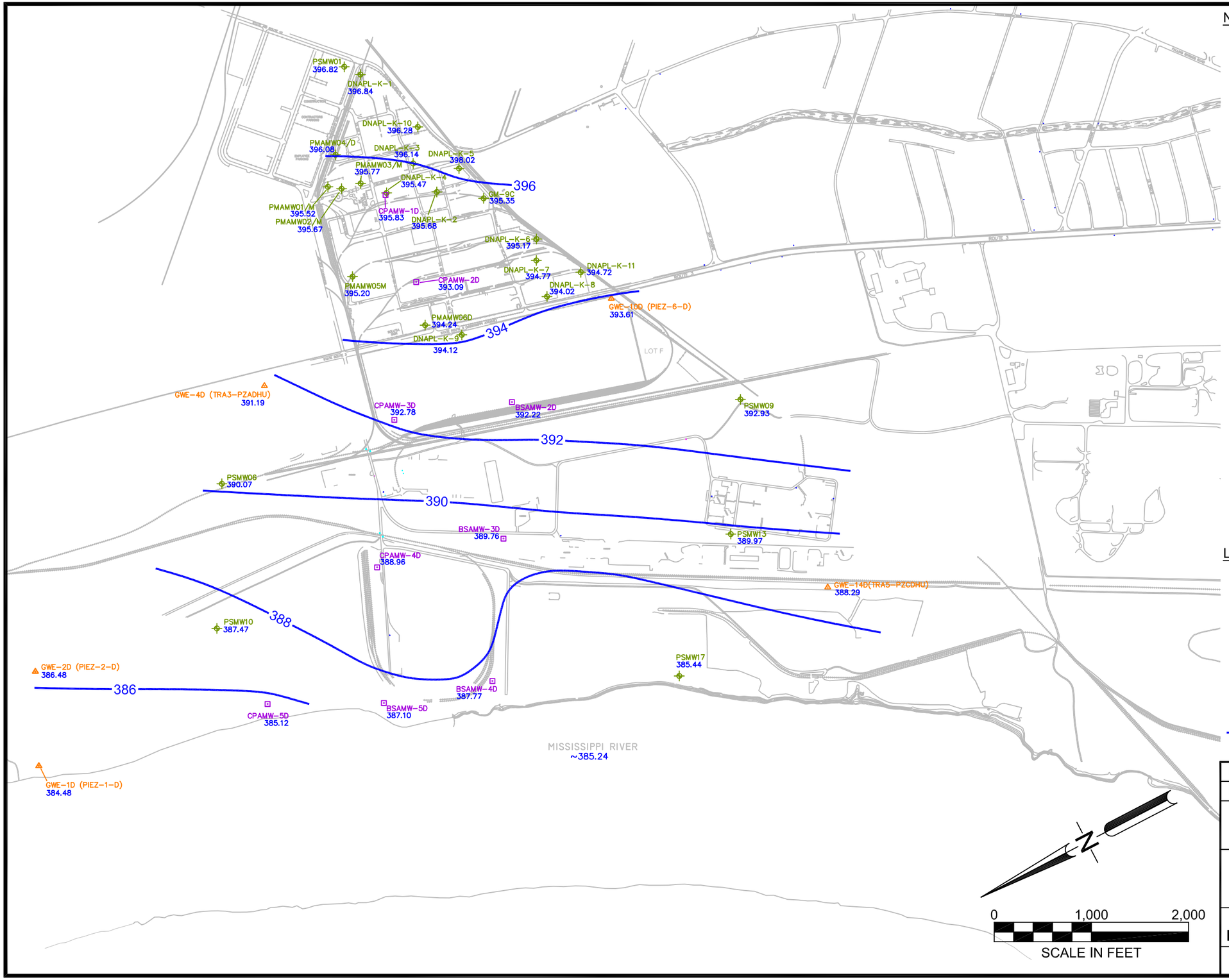
1Q 2011
PCB Monitoring Program
Sauget, Illinois

FORMER PCB MANUFACTORING AREA MONITORING WELL LOCATIONS

Project Number J017210.10	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 February 15, 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)

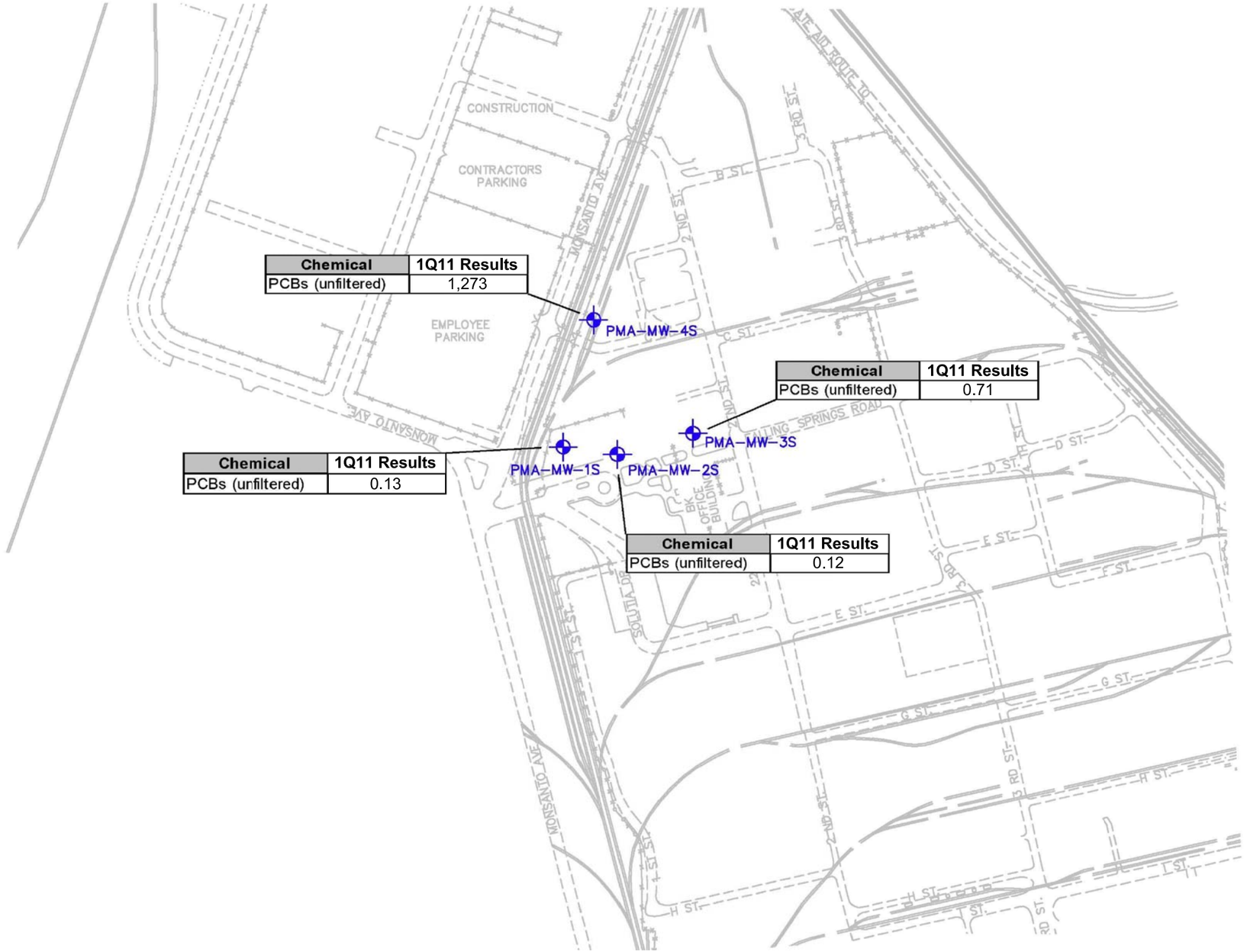
Drawn By: SLC	Ck'd By: DCW	App'vd By: DTK
Date: 04-14-11	Date: 04-14-11	Date: 04-14-11

GEOTECHNOLOGY INC
FROM THE GROUND UP

1Q 2011
PCB Monitoring Program
Sauget, Illinois

POTENTIOMETRIC SURFACE MAP MIDDLE/DEEP HYDROGEOLOGIC UNIT

Project Number	PLATE 3
J017210.10	



NOTES:

1. Plan adapted from a drawing titled "PCB Results - SHU Wells" provided by URS.
2. Total PCB results include the sum of all method 680 Homologs.
3. Results are shown in ug/L.
4. ND = Not Detected.

LEGEND:

Monitoring Well Location

N

0 300 600

SCALE IN FEET

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 04-15-11	Date: 04-15-11	Date: 04-15-11

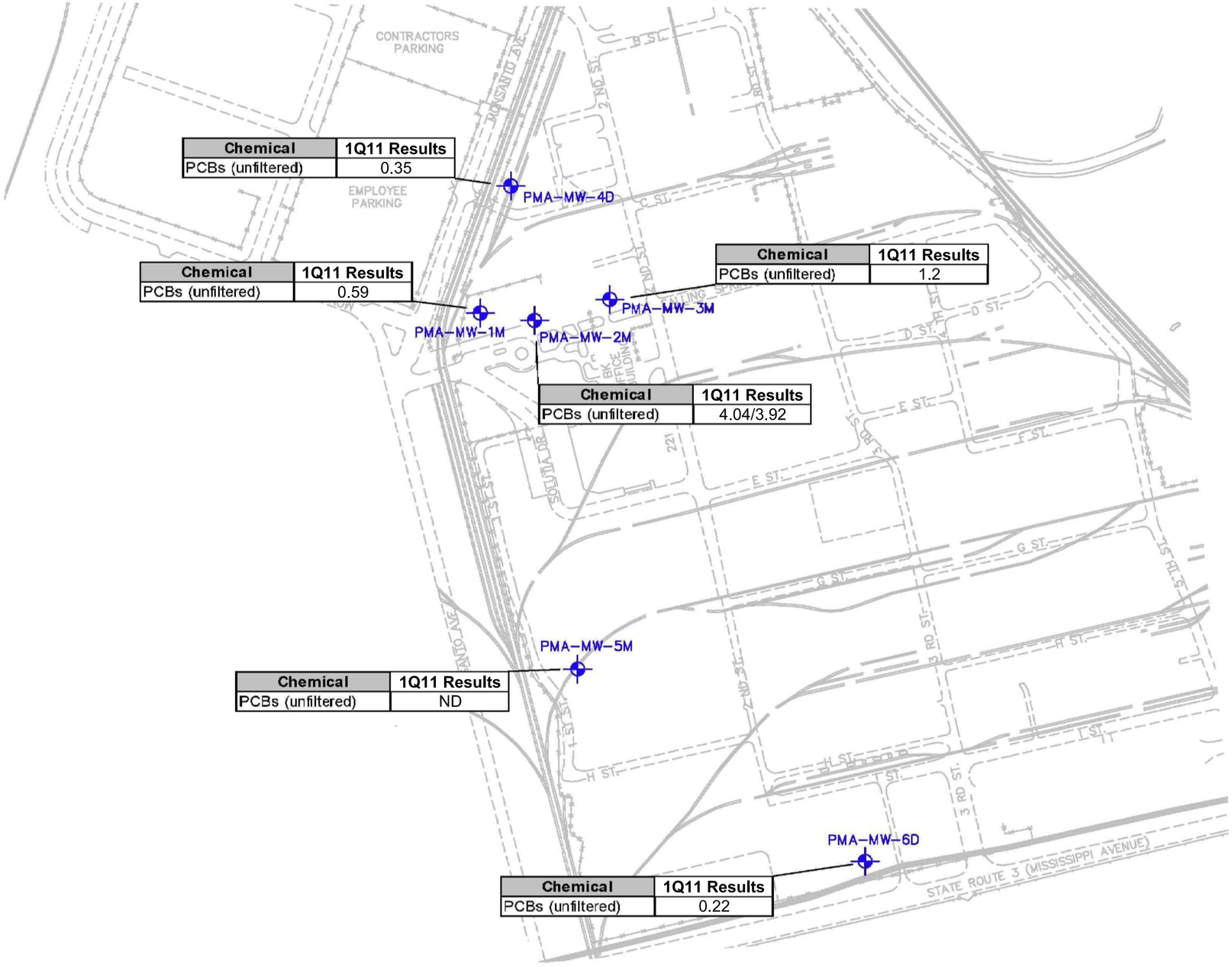
GEOTECHNOLOGY INC
FROM THE GROUND UP

1Q 2011
PCB Monitoring Program
Sauget, Illinois

PCB RESULTS
SHU WELLS

Project Number
J017210.10

PLATE 4



Chemical	1Q11 Results
PCBs (unfiltered)	0.35

Chemical	1Q11 Results
PCBs (unfiltered)	0.59

Chemical	1Q11 Results
PCBs (unfiltered)	1.2

Chemical	1Q11 Results
PCBs (unfiltered)	4.04/3.92

Chemical	1Q11 Results
PCBs (unfiltered)	ND

Chemical	1Q11 Results
PCBs (unfiltered)	0.22

NOTES:

1. Plan adapted from a drawing titled "PCB Results - MHU/DHU Wells" provided by URS.
2. Total PCB results include the sum of all method 680 Homologs.
3. Results are shown in ug/L.
4. ND = Not Detected.

LEGEND:

Monitoring Well Location

N

0 300 600

SCALE IN FEET

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 04-15-11	Date: 04-15-11	Date: 04-15-11

GEOTECHNOLOGY INC
FROM THE GROUND UP

1Q 2011
PCB Monitoring Program
Sauget, Illinois

PCB RESULTS
MHU/DHU WELLS

Project Number
J017210.10

PLATE 5

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-25-11 WEATHER: 33° snow
MONITORING WELL ID: PMA-MW-01S SAMPLE ID: PMA-MW-01S-0211

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 24.94 ft
Constructed Well Depth (btoc): 24.94 ft
Depth to Water (btock): 13.99 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 19.94 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 10.99 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) = 22.44 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.2 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	0753	13.99	—	—	—	—	—	—	—	—
1000	0757	14.00	Clear	none	6.31	15.54	0.15	0.0	0.14	150
2000	0800	14.00	↓	↓	6.46	15.75	0.15	5.4	0.08	129
3000	0803	14.00			6.50	15.73	0.17	0.0	0.04	120
4000	0806	14.00			6.54	15.89	0.21	0.0	0.01	112
5000	0809	14.00			6.56	15.92	0.24	0.0	0.0	105
6000	0812	14.00	↓	↓	6.58	15.96	0.25	0.0	0.0	101

Start Time: 0753
Stop Time: 0812
Elapsed Time: 19
Average Purge Rate (mL/min): 315.78 mL/min
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-25-11

SAMPLING DATA

Sample Date: 2-25-11
Sample Method: low flow
Sample Time: 0815
Sample Flow Rate: 315.78 mL/min
Analysis: Total PCBs
QA/QC Samples: MS, MSD

VOA Vials, No Headspace [X] none Initials: KCR

COMMENTS:

Ferrous Iron (Filtered 0.2 micron) = NA

J017210.02

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-25-11 WEATHER: 33 F Snow
MONITORING WELL ID: PMA-MW-02S SAMPLE ID: PMA-MW-02S-0211

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): 27.36 ft
Constructed Well Depth (btoc): 27.33 ft
Depth to Water (btock): 16.28 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 22.33 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 11.08 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) = 24.83 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 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	0935	16.28	—	—	—	—	—	—	—	—
1000	0938	16.28	Mostly clear	Chemical Smell	7.08	15.87	0.11	24.6	0.0	-10
2000	0941	16.29	"	"	6.95	16.80	0.11	19.0	0.0	-14
3000	0944	16.29	"	"	6.91	16.97	0.11	16.3	0.0	-15
4000	0947	16.28	"	"	6.91	17.09	0.11	9.2	0.0	-17
5000	0950	16.29	↓	↓	6.90	17.02	0.12	8.3	0.0	-18

Start Time: 0935
Stop Time: 0950
Elapsed Time: 15 min
Average Purge Rate (mL/min): 333.33
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-25-11

SAMPLING DATA

Sample Date: 2-25-11
Sample Method: low flow
Sample Time: 0955
Sample Flow Rate: 333.33 mL/min
Analysis: Total PCBs
QA/QC Samples: EB

VOA Vials, No Headspace [X] none Initials: KCR

COMMENTS:
Ferrous Iron (Filtered 0.2 micron) = NA

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-24-11 WEATHER: 40° Rainy
MONITORING WELL ID: PMA-MW-35 SAMPLE ID: PMA-MW-35-0211

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 27.46 ft
Constructed Well Depth (btoc): 27.4 ft
Depth to Water (btock): 16.21 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 22.4 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 11.25 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) = 24.9 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1.4 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	1356	16.21	—	—	—	—	—	—	—	—
1000	1400	16.22	mostly clear/haze	chemical odor	7.14	14.8	0.33	83.5	0.0	64
2000	1403	16.23			6.89	15.5	0.33	93.7	0.0	54
3000	1406	16.23			6.83	16.65	0.34	86.9	0.0	49
4000	1409	16.23			6.79	16.73	0.35	70.9	0.0	45
5000	1412	16.23	✓	✓	6.72	16.47	0.35	59.4	0.0	45

Start Time: 1356
Stop Time: 1412
Elapsed Time: 16 min
Average Purge Rate (mL/min): 312.5
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: Low Flow
Sample Time: 1415
Sample Flow Rate: 312.5
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace ☒ none Initials: KCR

COMMENTS:

Ferrous Iron (Filtered 0.2 micron) = N/A

J017210.02

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: W6K PCB 1011 | PROJECT NUMBER: J017210.10 | FIELD PERSONNEL: KCR/DCW
DATE: 2-24-11 | WEATHER: Wet
MONITORING WELL ID: PMA-MW-45 | SAMPLE ID: PMA-MW-45-0211

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 25.40 ft
Constructed Well Depth (btoc): 25.33 ft
Depth to Water (btock): 14.86 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 20.33 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 10.54 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) = 22.83 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 12.4 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	1136	14.86	—	—	—	—	—	—	—	—
1000	1140	14.86	mostly clear/hazy	chemical odor	6.63	16.6	0.26	109	0.0	-42
2000	1144	14.86	↓	↓	6.61	16.74	0.35	249	0.0	-43
3000	1149	14.86			6.63	16.46	0.36	246	0.0	-45
4000	1152	14.86			6.62	16.65	0.36	182	0.0	-50
5000	1156	14.86			6.63	16.53	0.38	142	0.0	-54
6000	1200	14.86			6.60	16.56	0.38	116	0.0	-57

Start Time: 1136
Stop Time: 1200
Elapsed Time: 24 min
Average Purge Rate (mL/min): 250 mL/min
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: Low Flow
Sample Time: 1205
Sample Flow Rate: 250 mL/min
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace ☑ none Initials: KCR

COMMENTS: LNAPL & DNAPL not observed on 2-24-11
Ferrous Iron (Filtered 0.2 micron) = NA
Turbidity kept bouncing around every 2 seconds but remained stable

J017210.02

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-24-11 WEATHER: 40° F Rainy
MONITORING WELL ID: PMA-MW-1M SAMPLE ID: PMA-MW-1M-0211

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 59.68 ft
Constructed Well Depth (btoc): 59.30 ft
Depth to Water (btock): 14.42 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 54.30 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 45.26 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) = 56.8 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 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	1444	14.42	-	-	-	-	-	-	-	-
1000	1447	14.42	mostly clear		6.74	15.53	0.18	20.2	0.0	58
2000	1450	14.42	"		6.73	15.75	0.21	13.8	0.0	30
3000	1453	14.42	"		6.74	15.84	0.23	8.0	0.0	6
4000	1456	14.43	"		6.74	15.90	0.23	3.3	0.0	-8
5000	1459	14.42	"		6.74	15.86	0.23	4.6	0.0	-24
6000	1502	14.41	"		6.74	15.84	0.24	5.8	0.0	-37
7000	1505	14.41	"		6.74	15.83	0.24	5.3	0.0	-48
8000	1508	14.41	"		6.74	15.85	0.24	5.3	0.0	-56

Start Time: 1444
Stop Time: 1508
Elapsed Time: 24 min
Average Purge Rate (mL/min): 333.33 mL/min
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: low flow
Sample Time: 1515
Sample Flow Rate: 333.33 mL/min
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace [X] none Initials: KCR

COMMENTS: Ferrous Iron (Filtered 0.2 micron) = NA

J017210.02

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KcR / DcW
DATE: 2-25-11 WEATHER: 33° F Snow
MONITORING WELL ID: PMA-MW-02M SAMPLE ID: PMA-MW-02M-0211

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): 61.60 ft
Constructed Well Depth (btoc): 61.54 ft
Depth to Water (btock): 16.52 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 56.54 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 45.08 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) = 59.04 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 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	0846	16.52	—	—	—	—	—	—	—	—
1000	0850	16.52	Pale yellow	chemical odor	7.14	15.76	0.21	89.2	0.0	71
2000	0853	16.52			7.18	16.14	0.21	81.0	0.0	45
3000	0857	16.52			7.25	16.45	0.21	79.8	0.0	16
4000	0900	16.52			7.26	16.43	0.21	77.1	0.0	-8
5000	0903	16.52	yellow/black		7.25	16.37	0.21	77.0	0.0	-29
7000	0908	16.52			7.27	16.10	0.21	65.9	0.0	-55
9000	0914	16.52			7.27	16.25	0.21	55.6	0.0	-75

Start Time: 0846
Stop Time: 0914
Elapsed Time: 28 min
Average Purge Rate (mL/min): 321.43 mL/min
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-25-11

SAMPLING DATA

Sample Date: 2-25-11
Sample Method: low Flow
Sample Time: 0920
Sample Flow Rate: 321.43 mL/min
Analysis: Total PCBs
QA/QC Samples: AD

VOA Vials, No Headspace [X] none Initials: KcR

COMMENTS: ORP levels falling, everything else has been stable
Ferrous Iron (Filtered 0.2 micron) = NA

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-24-11 WEATHER: 41F Rainy
MONITORING WELL ID: PMA-MW-3M SAMPLE ID: PMA-MW-3M-0211

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 61.88 ft
Constructed Well Depth (btoc): 61.81 ft
Depth to Water (btock): 16.37 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 56.81 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 45.51 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) = 59.31 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 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	1312	16.37	—	—	—	—	—	—	—	—
1000	1316	16.37	Black-brayish Haze	chemical odor	8.38	15.2	0.25	7.5	0.0	-23
2000	1320	16.37			8.57	15.9	0.28	27.3	0.0	-57
3000	1324	16.37			8.62	16.34	0.28	50.0	0.42	-82
4000	1327	16.37			8.64	16.40	0.29	68.9	0.0	-95
5000	1330	16.37			8.66	16.43	0.29	45.6	0.0	-103
6000	1333	16.37			8.66	16.47	0.29	41.0	0.0	-109
7000	1336	16.37	↓	↓	8.66	16.45	0.29	29.4	0.0	-113

Start Time: 1312
Stop Time: 1336
Elapsed Time: 24 min
Average Purge Rate (mL/min): 291.66 mL/min
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: low flow
Sample Time: 1340
Sample Flow Rate: 291.66 mL/min
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace ☒ none Initials: KCR

COMMENTS:

Ferrous Iron (Filtered 0.2 micron) = NA

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK PCB 1Q11 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-24-11 WEATHER: 41 F
MONITORING WELL ID: PMA-MW-4D SAMPLE ID: PMA-MW-4D-0211

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): 73.42 ft
Constructed Well Depth (btoc): 74.18 ft
Depth to Water (btock): 14.87 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 68.50 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 58.55 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) = 71.68 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1.1 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	1055	14.94	—	—	—	—	—	—	—	—
1000	1059	14.94	mostly clear/hazy	chemical odor	6.81	15.42	74 mS	82.5	2.88	-0
2000	1103	14.94	"	"	6.52	16.01	0.19	40.0	1.11	-1
3000	1107	14.94	"	"	6.60	16.15	0.20	33.0	0.0	-19
4000	1111	14.94	"	"	6.60	15.9	0.20	20.8	0.0	-41
5000	1115	14.94	"	"	6.60	16.09	0.20	14.7	0.0	-55
6000	1119		"	"	6.52	15.62	0.20	49.3	0.0	-62

Start Time: 1055
Stop Time: 1119
Elapsed Time: 24 min
Average Purge Rate (mL/min): 250 mL/min
Water Quality Meter ID: Horiba - U-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: low flow
Sample Time: 1125
Sample Flow Rate: 250 mL/min
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace [X] none Initials: KCR

COMMENTS: Ferrous Iron (Filtered 0.2 micron) = NA

LNAPL & DNAPL not observed on 2-24-11

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK PCB IRM | PROJECT NUMBER: J017210.10 | FIELD PERSONNEL: KCR / DCW
DATE: 2-24-11 | WEATHER: 40°F
MONITORING WELL ID: PMA-MW-5M | SAMPLE ID: PMA-MW-5M-0211

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): 57.05 ft
Constructed Well Depth (btoc): 56.87 ft
Depth to Water (btock): 15.58 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 51.87 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 41.47 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) = 54.37 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1.9 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	0834	15.58	-	-	-	-	-	-	-	-
1000	0838	15.58	Clear	slight chemical odor	6.90	16.29	0.27	5.4	0.0	-6
2000	0841	15.59	"	"	6.90	16.54	0.27	7.7	0.0	-14
3000	0845	15.59	"	"	6.91	16.11	0.28	0.0	0.0	-21
4000	0849	15.59	"	"	6.90	16.53	0.29	0.0	0.0	-27
5000	0853	15.59	↓	↓	6.92	16.49	0.30	0.0	0.0	-33

Start Time: 0834
Stop Time: 0853
Elapsed Time: 19 min
Average Purge Rate (mL/min): 263.15 mL/min
Water Quality Meter ID: H2O.lab - 4-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: low flow
Sample Time: 0900
Sample Flow Rate: 263.15 mL/min
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace [X] none Initials: KCR

COMMENTS:
Ferrous Iron (Filtered 0.2 micron) = NA

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K PCB 1811 PROJECT NUMBER: J017210.10 FIELD PERSONNEL: KCR / DCW
DATE: 2-24-11 WEATHER: 40F
MONITORING WELL ID: PMA-MW-6D SAMPLE ID: PMA-MW-6D-0211

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): 101.39 ft
Constructed Well Depth (btoc): 101.80 ft
Depth to Water (btock): 12.41 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 96.18 ft
Screen Length: 50 ft

Water Column Height (do not include LNAPL or DNAPL): 88.98 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) = 99.3 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): 700 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2100 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	0737	12.41	-	-	-	-	-	-	-	-
1000	0741	12.41	clear	none	6.51	15.73	0.14	23.8	0.10	70
2000	0744	12.41			6.76	16.46	0.13	23.3	0.0	30
3000	0748	12.41			6.85	15.73	0.13	12.1	0.0	2
4000	0752	12.41			6.88	16.19	0.14	9.9	0.0	-32
5000	0757	12.41			6.91	16.36	0.14	7.6	0.0	-57
7000	0803	12.41		↓	6.86	16.39	0.14	7.2	0.0	-77

Start Time: 0737
Stop Time: 0803
Elapsed Time: 26 min
Average Purge Rate (mL/min): 269.23 mL/min
Water Quality Meter ID: Horiba U-22
Date Calibrated: 2-24-11

SAMPLING DATA

Sample Date: 2-24-11
Sample Method: low flow
Sample Time: 0810
Sample Flow Rate: 269.23 mL/min
Analysis: Total PCBs
QA/QC Samples: none

VOA Vials, No Headspace [X] none Initials: KCR

COMMENTS:

Ferrous Iron (Filtered 0.2 micron) = NA

APPENDIX B

CHAINS-OF-CUSTODY

Serial Number 0011

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

1Q11 PCB 6W Sampling

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	PROJECT NO.	PROJECT LOCATION (STATE)
W6K PCB 1Q11		IL
TAL (LAB) PROJECT MANAGER: 6m RINALDI	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: 6m RINALDI	CLIENT PHONE: 314-674-3317	CLIENT FAX: 314-674-6808
CLIENT NAME: Solutia, Inc	CLIENT E-MAIL: gmrina@solutia.com	
CLIENT ADDRESS: 575 Mayville Center Drive, St. Louis, MO 63141		
COMPANY CONTRACTING THIS WORK (if applicable)		

MATRIX TYPE (COMPOSITE (C) OR GRAB (G) INDICATE): AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: Total PCBs (680); PRESERVATIVE: None

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
2-25-11	0815	PMA-MW-01S-0211	G	X				2	
	0815	PMA-MW-01S-0211-MS	G	X				2	MS
	0815	PMA-MW-01S-0211-MSD	G	X				2	MSD
	0920	PMA-MW-02M-0211	G	X				2	
	0920	PMA-MW-02M-0211-AD	G	X				2	AD
	0955	PMA-MW-02S-0211	G	X				2	
	0955	PMA-MW-02S-0211-EB	G	X				2	EB

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	2-25-11	1115						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	2/25/11	1015	YES ○ NO ○		680-65591	

TAL 8240-680 (1008)

Serial Number 03[illegible]

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PCB 1Q11 Groundwater monitoring

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	PROJECT NO.	PROJECT LOCATION (STATE)
W6K PCB - 1Q11		IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
GM RINALDI		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
GM RINALDI	314-674-3312	314-674-8808
CLIENT NAME	CLIENT E-MAIL	
Solutia Inc		
CLIENT ADDRESS		
575 Maryville Centre Drive, St. Louis, MO 63141		
COMPANY CONTRACTING THIS WORK (if applicable)		

MATRIX TYPE (COMPOSITE (C) OR GRAB (G) INDICATE): AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: Total PCBs (680)

PRESERVATIVE: None

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
2-24-11	0810	PMA-MW-6D-0211	G	X				2	
	0900	PMA-MW-5M-0211	G	X				2	
	1125	PMA-MW-4D-0211	G	X				2	
	1205	PMA-MW-4S-0211	G	X				2	
	1340	PMA-MW-3M-0211	G	X				2	
	1415	PMA-MW-3S-0211	G	X				2	
	1515	PMA-MW-1M-0211	G	X				2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	2-24-11	1635						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	2/25/11	1015	YES ○ NO ○		680-65591	3.6 | 3.7 | 4.1 | 4.2

TAL-0018A (1008)

APPENDIX C

QUALITY ASSURANCE REPORT

FIRST QUARTER 2011
PCB GROUNDWATER QUALITY ASSESSMENT 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. J017210.10

May 18, 2011

J017210.10

FIRST QUARTER 2011
PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

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J017210.10

FIRST QUARTER 2011
PCB GROUNDWATER QUALITY ASSESSMENT 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 February of 2011 at the Solutia W.G. Krummrich plant as part of the 1st Quarter 2011 PCB Groundwater Quality Assessment 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 polychlorinated biphenyls (PCBs).

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 four random groundwater samples for Level IV data validation (PMA-MW-6D-0211, PMA-MW-5M-0211, PMA-MW-4D-0211 and PMA-MW-4S-0211.) 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. These samples were analyzed as part of Sample Delivery Group (SDG) KPM041 utilizing the following USEPA SW-846 Methods:

- Method 680 for PCBs

Samples were reviewed following procedures outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) and the Revised PCB Groundwater Quality Assessment 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.
*	LCS, LCSD, MS, MSD, MD or surrogate exceeds the control limits.

Table 2 – Geotechnology (M.J.W. Corporation) Data Qualifiers

M.J.W. 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, including estimated detect/nondetect (J/UJ) values was 100 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) values
- Field duplicate results
- Results reported from dilutions
- Internal standard responses
- Mass spectrometer tuning
- Calibration
- Compound identification
- Other problems/documentation

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 conducted within the recommended holding time requirements.

The cooler receipt form indicated that four coolers were received by the laboratory at temperatures within the 4°C $\pm$ 2°C criteria. Samples received were in good condition and not frozen; therefore, no qualification of data was required.

3.0 LABORATORY METHOD BLANK 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 blanks.

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 PCBs 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. Sample PMA-MW-4S-0211 had a 0% recovery for 13DCB and was diluted and re-ran. Remaining surrogate recoveries were within evaluation criteria; therefore, no qualifications of data were required due to surrogate recoveries.

5.0 LABORATORY CONTROL SAMPLE RECOVERIES

Laboratory control samples (LCS) are analyzed with each analytical batch to assess the accuracy of the analytical process. LCS 680-195851/14A was out of limit for Nonachlorobiphenyl. All other 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, meeting the work plan frequency requirement.

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.

Sample PMA-MW-1S-0211 was spiked and analyzed for PCBs in SDG KPM041. All MS/MSD recoveries were within evaluation criteria. No qualification of data was required.

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 PCBs (Method 680), the IS areas must be within +/- 30 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. If the IS area count is outside criteria, Method 680 indicates the mean IS area obtained during the initial calibration (ICAL) (+/- 50 percent) should be used.

The internal standards area responses for PCBs were verified for the data reviews. IS responses met the criteria as described above.

9.0 RESULTS REPORTED FROM DILUTIONS

Analytes were detected in diluted samples; therefore, undiluted results were not reported.

10. MASS SPECTROMETER TUNING

Instrument performance was determined to be satisfactory; therefore, 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%. Percent RSD and percent D were within control limits; therefore, no qualifications of data were required.

12.0 COMPOUND IDENTIFICATION

Form X was not completed for those samples in which there was a positive result for PCBs. Compound identification was determined to be satisfactory; therefore, no qualifications of data were required.

13.0 OTHER PROBLEMS/DOCUMENTATION

Other problems with non-compliance, field documentation, etc., were not identified; therefore, no qualifications of data were required.

APPENDIX D

GROUNDWATER ANALYTICAL RESULTS (WITH DATA REVIEW SHEETS)

SDG KPM041

Results of Samples from Monitoring Wells:
PMA-MW-1M
PMA-MW-1S
PMA-MW-2M
PMA-MW-2S
PMA-MW-3M
PMA-MW-3S
PMA-MW-4D
PMA-MW-4S
PMA-MW-5M
PMA-MW-6D

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: 680-65991-1
TestAmerica Sample Delivery Group: KPM041
Client Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

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

Attn: Jerry Rinaldi

Lidya Gulizia

Authorized for release by:
03/18/2011 04:03:19 PM

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

cc: Duane Kreuger

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.

4/11/11

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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4/11/11

Case Narrative

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Job ID: 680-65991-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative
680-65991-1 / SDG KPM041

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

GC/MS Semi VOA
Method(s) 680: The following sample(s) was diluted due to the nature of the sample matrix PMA-MW-4S-0211 (680-65991-4). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Comments
No additional comments.

Sample Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-65991-1	PMA-MW-6D-0211	Water	02/24/11 08:10	02/26/11 10:15
680-65991-2	PMA-MW-5M-0211	Water	02/24/11 09:00	02/26/11 10:15
680-65991-3	PMA-MW-4D-0211	Water	02/24/11 11:25	02/26/11 10:15
680-65991-4	PMA-MW-4S-0211	Water	02/24/11 12:05	02/26/11 10:15
680-65991-5	PMA-MW-3M-0211	Water	02/24/11 13:40	02/26/11 10:15
680-65991-6	PMA-MW-3S-0211	Water	02/24/11 14:15	02/26/11 10:15
680-65991-7	PMA-MW-1M-0211	Water	02/24/11 15:15	02/26/11 10:15
680-65991-8	PMA-MW-01S-0211	Water	02/25/11 08:15	02/26/11 10:15
680-65991-9	PMA-MW-02M-0211	Water	02/25/11 09:20	02/26/11 10:15
680-65991-10	PMA-MW-02M-0211-AD	Water	02/25/11 09:20	02/26/11 10:15
680-65991-11	PMA-MW-02S-0211	Water	02/25/11 09:55	02/26/11 10:15
680-65991-12	PMA-MW-02S-0211-EB	Water	02/25/11 09:55	02/26/11 10:15

TestAmerica Savannah

Method Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Method	Method Description	Protocol	Laboratory
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

TestAmerica Savannah

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4/11/11

Qualifier Definition/Glossary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD 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.

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4/11/11

Detection Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-6D-0211 — Lab Sample ID: 680-65991-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.22		0.10		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-5M-0211 — Lab Sample ID: 680-65991-2

No Detections.

Client Sample ID: PMA-MW-4D-0211 — Lab Sample ID: 680-65991-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.18		0.11		ug/L	1		680	Total/NA
Dichlorobiphenyl	0.17		0.11		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-4S-0211 — Lab Sample ID: 680-65991-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	2.7		1.0		ug/L	10		680	Total/NA
Dichlorobiphenyl	25		1.0		ug/L	10		680	Total/NA
Trichlorobiphenyl	120		1.0		ug/L	10		680	Total/NA
Tetrachlorobiphenyl	230		2.0		ug/L	10		680	Total/NA
Pentachlorobiphenyl	200		2.0		ug/L	10		680	Total/NA
Hexachlorobiphenyl	340		2.0		ug/L	10		680	Total/NA
Heptachlorobiphenyl	300		3.0		ug/L	10		680	Total/NA
Octachlorobiphenyl	50		3.0		ug/L	10		680	Total/NA
Nonachlorobiphenyl	5.3	*	5.0		ug/L	10		680	Total/NA

Client Sample ID: PMA-MW-3M-0211 — Lab Sample ID: 680-65991-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.73		0.098		ug/L	1		680	Total/NA
Trichlorobiphenyl	0.21		0.098		ug/L	1		680	Total/NA
Tetrachlorobiphenyl	0.26		0.20		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-3S-0211 — Lab Sample ID: 680-65991-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.31		0.10		ug/L	1		680	Total/NA
Dichlorobiphenyl	0.18		0.10		ug/L	1		680	Total/NA
Trichlorobiphenyl	0.22		0.10		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-1M-0211 — Lab Sample ID: 680-65991-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.59		0.11		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-01S-0211 — Lab Sample ID: 680-65991-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichlorobiphenyl	0.13		0.10		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-02M-0211 — Lab Sample ID: 680-65991-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	3.8		0.095		ug/L	1		680	Total/NA
Dichlorobiphenyl	0.10		0.095		ug/L	1		680	Total/NA

Detection Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-02M-0211 (Continued) — Lab Sample ID: 680-65991-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichlorobiphenyl	0.14		0.095		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-02M-0211-AD — Lab Sample ID: 680-65991-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	3.8		0.095		ug/L	1		680	Total/NA
Trichlorobiphenyl	0.12		0.095		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-02S-0211 — Lab Sample ID: 680-65991-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichlorobiphenyl	0.12		0.098		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-02S-0211-EB — Lab Sample ID: 680-65991-12

No Detections.

AG
4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-6D-0211
Date Collected: 02/24/11 08:10
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-1
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**0.22**		0.10		ug/L		03/03/11 14:54	03/08/11 17:43	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 17:43	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 17:43	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 17:43	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 17:43	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 17:43	1
Heptachlorobiphenyl	0.31	U	0.31		ug/L		03/03/11 14:54	03/08/11 17:43	1
Octachlorobiphenyl	0.31	U	0.31		ug/L		03/03/11 14:54	03/08/11 17:43	1
Nonachlorobiphenyl	0.51	U *	0.51		ug/L		03/03/11 14:54	03/08/11 17:43	1
DCB Decachlorobiphenyl	0.51	U	0.51		ug/L		03/03/11 14:54	03/08/11 17:43	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*66*		*25 - 113*	*03/03/11 14:54*	*03/08/11 17:43*	*1*

AG
4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-5M-0211
Date Collected: 02/24/11 09:00
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-2
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.098	U	0.098		ug/L		03/03/11 14:54	03/08/11 18:13	1
Dichlorobiphenyl	0.098	U	0.098		ug/L		03/03/11 14:54	03/08/11 18:13	1
Trichlorobiphenyl	0.098	U	0.098		ug/L		03/03/11 14:54	03/08/11 18:13	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 18:13	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 18:13	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 18:13	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/08/11 18:13	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/08/11 18:13	1
Nonachlorobiphenyl	0.49	U *	0.49		ug/L		03/03/11 14:54	03/08/11 18:13	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		03/03/11 14:54	03/08/11 18:13	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*60*		*25 - 113*	*03/03/11 14:54*	*03/08/11 18:13*	*1*

TestAmerica Savannah
AG
4/11/11

Client Sample ID: PMA-MW-4D-0211
Date Collected: 02/24/11 11:25
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-3
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**0.18**		0.11		ug/L		03/03/11 14:54	03/08/11 18:43	1
Dichlorobiphenyl	**0.17**		0.11		ug/L		03/03/11 14:54	03/08/11 18:43	1
Trichlorobiphenyl	0.11	U	0.11		ug/L		03/03/11 14:54	03/08/11 18:43	1
Tetrachlorobiphenyl	0.22	U	0.22		ug/L		03/03/11 14:54	03/08/11 18:43	1
Pentachlorobiphenyl	0.22	U	0.22		ug/L		03/03/11 14:54	03/08/11 18:43	1
Hexachlorobiphenyl	0.22	U	0.22		ug/L		03/03/11 14:54	03/08/11 18:43	1
Heptachlorobiphenyl	0.33	U	0.33		ug/L		03/03/11 14:54	03/08/11 18:43	1
Octachlorobiphenyl	0.33	U	0.33		ug/L		03/03/11 14:54	03/08/11 18:43	1
Nonachlorobiphenyl	0.55	U *	0.55		ug/L		03/03/11 14:54	03/08/11 18:43	1
DCB Decachlorobiphenyl	0.55	U	0.55		ug/L		03/03/11 14:54	03/08/11 18:43	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*52*		*25 - 113*	*03/03/11 14:54*	*03/08/11 18:43*	*1*

4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-4S-0211
Date Collected: 02/24/11 12:05
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-4
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	2.7		1.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Dichlorobiphenyl	25		1.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Trichlorobiphenyl	120		1.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Tetrachlorobiphenyl	230		2.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Pentachlorobiphenyl	200		2.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Hexachlorobiphenyl	340		2.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Heptachlorobiphenyl	300		3.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Octachlorobiphenyl	50		3.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
Nonachlorobiphenyl	5.3	*	5.0		ug/L		03/03/11 14:54	03/09/11 16:42	10
DCB Decachlorobiphenyl	5.0	U	5.0		ug/L		03/03/11 14:54	03/09/11 16:42	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*0*		*25 - 113*	*03/03/11 14:54*	*03/09/11 16:42*	*10*

TestAmerica Savannah
AB
4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-3M-0211
Date Collected: 02/24/11 13:40
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-5
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**0.73**		0.098		ug/L		03/03/11 14:54	03/08/11 19:13	1
Dichlorobiphenyl	0.098	U	0.098		ug/L		03/03/11 14:54	03/08/11 19:13	1
Trichlorobiphenyl	**0.21**		0.098		ug/L		03/03/11 14:54	03/08/11 19:13	1
Tetrachlorobiphenyl	**0.26**		0.20		ug/L		03/03/11 14:54	03/08/11 19:13	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 19:13	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 19:13	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/08/11 19:13	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/08/11 19:13	1
Nonachlorobiphenyl	0.49	U *	0.49		ug/L		03/03/11 14:54	03/08/11 19:13	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		03/03/11 14:54	03/08/11 19:13	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*64*		*25 - 113*	*03/03/11 14:54*	*03/08/11 19:13*	*1*

TestAmerica Savannah
4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-3S-0211
Date Collected: 02/24/11 14:15
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-6
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**0.31**		0.10		ug/L		03/03/11 14:54	03/08/11 19:44	1
Dichlorobiphenyl	**0.18**		0.10		ug/L		03/03/11 14:54	03/08/11 19:44	1
Trichlorobiphenyl	**0.22**		0.10		ug/L		03/03/11 14:54	03/08/11 19:44	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 19:44	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 19:44	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 19:44	1
Heptachlorobiphenyl	0.31	U	0.31		ug/L		03/03/11 14:54	03/08/11 19:44	1
Octachlorobiphenyl	0.31	U	0.31		ug/L		03/03/11 14:54	03/08/11 19:44	1
Nonachlorobiphenyl	0.51	U *	0.51		ug/L		03/03/11 14:54	03/08/11 19:44	1
DCB Decachlorobiphenyl	0.51	U	0.51		ug/L		03/03/11 14:54	03/08/11 19:44	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*63*		*25 - 113*	*03/03/11 14:54*	*03/08/11 19:44*	*1*

4/11/11

Client Sample ID: PMA-MW-1M-0211
Date Collected: 02/24/11 15:15
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-7
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**0.59**		0.11		ug/L		03/03/11 14:54	03/14/11 19:20	1
Dichlorobiphenyl	0.11	U	0.11		ug/L		03/03/11 14:54	03/14/11 19:20	1
Trichlorobiphenyl	0.11	U	0.11		ug/L		03/03/11 14:54	03/14/11 19:20	1
Tetrachlorobiphenyl	0.21	U	0.21		ug/L		03/03/11 14:54	03/14/11 19:20	1
Pentachlorobiphenyl	0.21	U	0.21		ug/L		03/03/11 14:54	03/14/11 19:20	1
Hexachlorobiphenyl	0.21	U	0.21		ug/L		03/03/11 14:54	03/14/11 19:20	1
Heptachlorobiphenyl	0.32	U	0.32		ug/L		03/03/11 14:54	03/14/11 19:20	1
Octachlorobiphenyl	0.32	U	0.32		ug/L		03/03/11 14:54	03/14/11 19:20	1
Nonachlorobiphenyl	0.53	U *	0.53		ug/L		03/03/11 14:54	03/14/11 19:20	1
DCB Decachlorobiphenyl	0.53	U	0.53		ug/L		03/03/11 14:54	03/14/11 19:20	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*77*		*25 - 113*	*03/03/11 14:54*	*03/14/11 19:20*	*1*

AC
4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-01S-0211
Date Collected: 02/25/11 08:15
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-8
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 20:14	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 20:14	1
Trichlorobiphenyl	**0.13**		0.10		ug/L		03/03/11 14:54	03/08/11 20:14	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 20:14	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 20:14	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 20:14	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/08/11 20:14	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/08/11 20:14	1
Nonachlorobiphenyl	0.50	U *	0.50		ug/L		03/03/11 14:54	03/08/11 20:14	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		03/03/11 14:54	03/08/11 20:14	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*63*		*25 - 113*	*03/03/11 14:54*	*03/08/11 20:14*	*1*

TestAmerica Savannah
AL
4/11/11

Client Sample ID: PMA-MW-02M-0211
Date Collected: 02/25/11 09:20
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-9
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**3.8**		0.095		ug/L		03/03/11 14:54	03/08/11 20:45	1
Dichlorobiphenyl	**0.10**		0.095		ug/L		03/03/11 14:54	03/08/11 20:45	1
Trichlorobiphenyl	**0.14**		0.095		ug/L		03/03/11 14:54	03/08/11 20:45	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		03/03/11 14:54	03/08/11 20:45	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		03/03/11 14:54	03/08/11 20:45	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		03/03/11 14:54	03/08/11 20:45	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/08/11 20:45	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/08/11 20:45	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		03/03/11 14:54	03/08/11 20:45	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		03/03/11 14:54	03/08/11 20:45	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*51*		*25 - 113*	*03/03/11 14:54*	*03/08/11 20:45*	*1*

4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-02M-0211-AD
Date Collected: 02/25/11 09:20
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-10
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	**3.8**		0.095		ug/L		03/03/11 14:54	03/14/11 19:50	1
Dichlorobiphenyl	0.095	U	0.095		ug/L		03/03/11 14:54	03/14/11 19:50	1
Trichlorobiphenyl	**0.12**		0.095		ug/L		03/03/11 14:54	03/14/11 19:50	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		03/03/11 14:54	03/14/11 19:50	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		03/03/11 14:54	03/14/11 19:50	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		03/03/11 14:54	03/14/11 19:50	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/14/11 19:50	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/14/11 19:50	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		03/03/11 14:54	03/14/11 19:50	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		03/03/11 14:54	03/14/11 19:50	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*69*		*25 - 113*	*03/03/11 14:54*	*03/14/11 19:50*	*1*

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4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-02S-0211
Date Collected: 02/25/11 09:55
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-11
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.098	U	0.098		ug/L		03/03/11 14:54	03/08/11 21:46	1
Dichlorobiphenyl	0.098	U	0.098		ug/L		03/03/11 14:54	03/08/11 21:46	1
Trichlorobiphenyl	**0.12**		0.098		ug/L		03/03/11 14:54	03/08/11 21:46	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 21:46	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 21:46	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 21:46	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/08/11 21:46	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		03/03/11 14:54	03/08/11 21:46	1
Nonachlorobiphenyl	0.49	U *	0.49		ug/L		03/03/11 14:54	03/08/11 21:46	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		03/03/11 14:54	03/08/11 21:46	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*59*		*25 - 113*	*03/03/11 14:54*	*03/08/11 21:46*	*1*

4/11/11

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-02S-0211-EB
Date Collected: 02/25/11 09:55
Date Received: 02/26/11 10:15

Lab Sample ID: 680-65991-12
Matrix: Water

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.099	U	0.099		ug/L		03/03/11 14:54	03/09/11 15:10	1
Dichlorobiphenyl	0.099	U	0.099		ug/L		03/03/11 14:54	03/09/11 15:10	1
Trichlorobiphenyl	0.099	U	0.099		ug/L		03/03/11 14:54	03/09/11 15:10	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/09/11 15:10	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/09/11 15:10	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/09/11 15:10	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/09/11 15:10	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/09/11 15:10	1
Nonachlorobiphenyl	0.49	U *	0.49		ug/L		03/03/11 14:54	03/09/11 15:10	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		03/03/11 14:54	03/09/11 15:10	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*90*		*25 - 113*	*03/03/11 14:54*	*03/09/11 15:10*	*1*

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AG
4/11/11

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Lab Sample ID: MB 680-195851/13-A
Matrix: Water
Analysis Batch: 196894

Client Sample ID: MB 680-195851/13-A
Prep Type: Total/NA
Prep Batch: 195851

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 15:41	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 15:41	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		03/03/11 14:54	03/08/11 15:41	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 15:41	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 15:41	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		03/03/11 14:54	03/08/11 15:41	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/08/11 15:41	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		03/03/11 14:54	03/08/11 15:41	1
Nonachlorobiphenyl	0.50	U	0.50		ug/L		03/03/11 14:54	03/08/11 15:41	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		03/03/11 14:54	03/08/11 15:41	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl-13C12	*75*		*25 - 113*	*03/03/11 14:54*	*03/08/11 15:41*	*1*

Lab Sample ID: LCS 680-195851/14-A
Matrix: Water
Analysis Batch: 196894

Client Sample ID: LCS 680-195851/14-A
Prep Type: Total/NA
Prep Batch: 195851

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Monochlorobiphenyl	2.00	1.15		ug/L		57	10 - 125
Dichlorobiphenyl	2.00	1.29		ug/L		64	10 - 110
Trichlorobiphenyl	2.00	1.35		ug/L		67	17 - 110
Tetrachlorobiphenyl	4.00	2.67		ug/L		67	18 - 110
Pentachlorobiphenyl	4.00	2.75		ug/L		69	34 - 110
Hexachlorobiphenyl	4.00	2.81		ug/L		70	31 - 110
Heptachlorobiphenyl	6.00	4.14		ug/L		69	33 - 110
Octachlorobiphenyl	6.00	4.05		ug/L		68	33 - 110
Nonachlorobiphenyl	10.0	12.1	*	ug/L		121	26 - 115
DCB Decachlorobiphenyl	10.0	6.72		ug/L		67	26 - 115

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Decachlorobiphenyl-13C12	*67*		*25 - 113*

Lab Sample ID: 680-65991-8 MS
Matrix: Water
Analysis Batch: 196920

Client Sample ID: PMA-MW-01S-0211
Prep Type: Total/NA
Prep Batch: 195851

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Monochlorobiphenyl	0.10	U	2.02	1.23		ug/L		61	10 - 125
Dichlorobiphenyl	0.10	U	2.02	1.46		ug/L		70	10 - 110
Trichlorobiphenyl	0.13		2.02	1.57		ug/L		71	17 - 110
Tetrachlorobiphenyl	0.20	U	4.04	3.06		ug/L		75	18 - 110
Pentachlorobiphenyl	0.20	U	4.04	3.29		ug/L		81	34 - 110
Hexachlorobiphenyl	0.20	U	4.04	3.45		ug/L		85	31 - 110
Heptachlorobiphenyl	0.30	U	6.06	5.09		ug/L		84	33 - 110
Octachlorobiphenyl	0.30	U	6.06	4.91		ug/L		81	33 - 110
Nonachlorobiphenyl	0.50	U *	10.1	9.94		ug/L		98	26 - 115
DCB Decachlorobiphenyl	0.50	U	10.1	8.16		ug/L		81	26 - 115

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS) (Continued)

Lab Sample ID: 680-65991-8 MS
Matrix: Water
Analysis Batch: 196920

Client Sample ID: PMA-MW-01S-0211
Prep Type: Total/NA
Prep Batch: 195851

Surrogate	MS % Recovery	MS Qualifier	Limits
Decachlorobiphenyl-13C12	*81*		*25 - 113*

Lab Sample ID: 680-65991-8 MSD
Matrix: Water
Analysis Batch: 196920

Client Sample ID: PMA-MW-01S-0211
Prep Type: Total/NA
Prep Batch: 195851

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Monochlorobiphenyl	0.10	U	2.01	1.34		ug/L		66	10 - 125	8	40
Dichlorobiphenyl	0.10	U	2.01	1.52		ug/L		74	10 - 110	4	40
Trichlorobiphenyl	0.13		2.01	1.68		ug/L		77	17 - 110	7	40
Tetrachlorobiphenyl	0.20	U	4.03	3.18		ug/L		78	18 - 110	4	40
Pentachlorobiphenyl	0.20	U	4.03	3.39		ug/L		84	34 - 110	3	40
Hexachlorobiphenyl	0.20	U	4.03	3.51		ug/L		87	31 - 110	2	40
Heptachlorobiphenyl	0.30	U	6.04	5.26		ug/L		87	33 - 110	3	40
Octachlorobiphenyl	0.30	U	6.04	5.13		ug/L		85	33 - 110	4	40
Nonachlorobiphenyl	0.50	U *	10.1	10.8		ug/L		107	26 - 115	8	40
DCB Decachlorobiphenyl	0.50	U	10.1	8.49		ug/L		84	26 - 115	4	40

Surrogate	MSD % Recovery	MSD Qualifier	Limits
Decachlorobiphenyl-13C12	*85*		*25 - 113*

4/11/11

GC/MS Semi VOA

Prep Batch: 195851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-65991-1	PMA-MW-6D-0211	Total/NA	Water	680	
680-65991-10	PMA-MW-02M-0211-AD	Total/NA	Water	680	
680-65991-11	PMA-MW-02S-0211	Total/NA	Water	680	
680-65991-12	PMA-MW-02S-0211-EB	Total/NA	Water	680	
MB 680-195851/13-A	MB 680-195851/13-A	Total/NA	Water	680	
LCS 680-195851/14-A	LCS 680-195851/14-A	Total/NA	Water	680	
680-65991-8 MS	PMA-MW-01S-0211	Total/NA	Water	680	
680-65991-8 MSD	PMA-MW-01S-0211	Total/NA	Water	680	
680-65991-2	PMA-MW-5M-0211	Total/NA	Water	680	
680-65991-3	PMA-MW-4D-0211	Total/NA	Water	680	
680-65991-4	PMA-MW-4S-0211	Total/NA	Water	680	
680-65991-5	PMA-MW-3M-0211	Total/NA	Water	680	
680-65991-6	PMA-MW-3S-0211	Total/NA	Water	680	
680-65991-7	PMA-MW-1M-0211	Total/NA	Water	680	
680-65991-8	PMA-MW-01S-0211	Total/NA	Water	680	
680-65991-9	PMA-MW-02M-0211	Total/NA	Water	680	

Analysis Batch: 196894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-195851/13-A	MB 680-195851/13-A	Total/NA	Water	680	195851
680-65991-8	PMA-MW-01S-0211	Total/NA	Water	680	195851
680-65991-9	PMA-MW-02M-0211	Total/NA	Water	680	195851
680-65991-11	PMA-MW-02S-0211	Total/NA	Water	680	195851
LCS 680-195851/14-A	LCS 680-195851/14-A	Total/NA	Water	680	195851
680-65991-1	PMA-MW-6D-0211	Total/NA	Water	680	195851
680-65991-2	PMA-MW-5M-0211	Total/NA	Water	680	195851
680-65991-3	PMA-MW-4D-0211	Total/NA	Water	680	195851
680-65991-5	PMA-MW-3M-0211	Total/NA	Water	680	195851
680-65991-6	PMA-MW-3S-0211	Total/NA	Water	680	195851

Analysis Batch: 196920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-65991-12	PMA-MW-02S-0211-EB	Total/NA	Water	680	195851
680-65991-8 MS	PMA-MW-01S-0211	Total/NA	Water	680	195851
680-65991-8 MSD	PMA-MW-01S-0211	Total/NA	Water	680	195851
680-65991-4	PMA-MW-4S-0211	Total/NA	Water	680	195851

Analysis Batch: 197271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-65991-7	PMA-MW-1M-0211	Total/NA	Water	680	195851
680-65991-10	PMA-MW-02M-0211-AD	Total/NA	Water	680	195851

AC
4/4/11

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-6D-0211
Lab Sample ID: 680-65991-1
Date Collected: 02/24/11 08:10
Matrix: Water
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 17:43	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-5M-0211
Lab Sample ID: 680-65991-2
Date Collected: 02/24/11 09:00
Matrix: Water
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 18:13	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-4D-0211
Lab Sample ID: 680-65991-3
Date Collected: 02/24/11 11:25
Matrix: Water
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 18:43	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-4S-0211
Lab Sample ID: 680-65991-4
Date Collected: 02/24/11 12:05
Matrix: Water
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		10	196920	03/09/11 16:42	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-3M-0211
Lab Sample ID: 680-65991-5
Date Collected: 02/24/11 13:40
Matrix: Water
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 19:13	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-3S-0211
Lab Sample ID: 680-65991-6
Date Collected: 02/24/11 14:15
Matrix: Water
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 19:44	ND	TestAmerica Savannah

AB
4/11/11

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Client Sample ID: PMA-MW-1M-0211

Lab Sample ID: 680-65991-7
Matrix: Water

Date Collected: 02/24/11 15:15
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	197271	03/14/11 19:20	KAC	TestAmerica Savannah

Client Sample ID: PMA-MW-01S-0211

Lab Sample ID: 680-65991-8
Matrix: Water

Date Collected: 02/25/11 08:15
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 20:14	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-02M-0211

Lab Sample ID: 680-65991-9
Matrix: Water

Date Collected: 02/25/11 09:20
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 20:45	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-02M-0211-AD

Lab Sample ID: 680-65991-10
Matrix: Water

Date Collected: 02/25/11 09:20
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	197271	03/14/11 19:50	KAC	TestAmerica Savannah

Client Sample ID: PMA-MW-02S-0211

Lab Sample ID: 680-65991-11
Matrix: Water

Date Collected: 02/25/11 09:55
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196894	03/08/11 21:46	ND	TestAmerica Savannah

Client Sample ID: PMA-MW-02S-0211-EB

Lab Sample ID: 680-65991-12
Matrix: Water

Date Collected: 02/25/11 09:55
Date Received: 02/26/11 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			195851	03/03/11 14:54	RBS	TestAmerica Savannah
Total/NA	Analysis	680		1	196920	03/09/11 15:10	ND	TestAmerica Savannah

AC
4/11/11

Serial Number 05[illegible]

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PCB 1Q11 groundwater monitoring

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	PROJECT NO.	PROJECT LOCATION (STATE)
W6K PCB - 1Q11		IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
GM RINALDI		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
GM RINALDI	314-674-3312	314-674-8808
CLIENT NAME	CLIENT E-MAIL	
Solutia, Inc		
CLIENT ADDRESS		
575 Maryville Centre Drive, St. Louis, MO 63141		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: Total PCBs (680)	PRESERVATIVE: none	NUMBER OF CONTAINERS SUBMITTED	REMARKS
2-24-11	0810	PMA-MW-6D-0211	6	X						2	
	0900	PMA-MW-5M-0211	6	X						2	
	1125	PMA-MW-4D-0211	6	X						2	
	1205	PMA-MW-4S-0211	6	X						2	
	1340	PMA-MW-3M-0211	6	X						2	
	1415	PMA-MW-3S-0211	6	X						2	
↓	1515	PMA-MW-1M-0211	6	X						2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	2-24-11	1635						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	2/25/11	1015	YES ○ NO ○		680-65591	3.6 | 3.7 | 4.1 | 4.2

TAL-8210-680 (1108)

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Serial Number 03171

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

1Q11 PCB GW Sampling

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	PROJECT NO.	PROJECT LOCATION (STATE)
WBK PCB 1Q11		IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
6M RINALDI		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
6M RINALDI	314-674-3312	314-674-6808
CLIENT NAME	CLIENT E-MAIL	
Solutia, Inc	gmrina@solutia.com	
CLIENT ADDRESS		
575 Maryville Center Drive, St. Louis, MO 63141		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: Total PCBs (680)	PRESERVATIVE: None	NUMBER OF CONTAINERS SUBMITTED	REMARKS
2-25-11	0815	PMA-MW-015-0211	6	X						2	
	0815	PMA-MW-015-0211-MS	6	X						2	MS
	0815	PMA-MW-015-0211-MSD	6	X						2	MSD
	0920	PMA-MW-02M-0211	6	X						2	
	0920	PMA-MW-02M-0211-AD	6	X						2	AD
	0955	PMA-MW-025-0211	6	X						2	
	0955	PMA-MW-025-0211-EB	6	X						2	EB

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	2-25-11	1115						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	2/25/11	1015	YES ○ NO ○		680-65591	

TAL 8240-680 (1008)

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4/11/11

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-65991-1
SDG Number: KPM041

Login Number: 65991
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	4 coolers rec'd on ice
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6, 3.7, 4.1, 4.2
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.	False	MW-4S - 1 liter received broken
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.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

AG
4/11/16

Certification Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 1Q11 - FEB 2011

TestAmerica Job ID: 680-65991-1
SDG: KPM041

Laboratory	Authority	Program	EPA Region	Certification ID	* Expiration Date
TestAmerica Savannah		USDA		SAV 3-04	10/29/10
TestAmerica Savannah	A2LA	DoD ELAP	0	0399-01	03/31/11
TestAmerica Savannah	A2LA	ISO/IEC 17025	0	399.01	03/31/11
TestAmerica Savannah	Alabama	State Program	4	41450	06/30/11
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A	06/30/10
TestAmerica Savannah	Arkansas	State Program	6	88-0692	02/01/12
TestAmerica Savannah	California	NELAC	9	3217CA	07/31/11
TestAmerica Savannah	Colorado	State Program	8	N/A	12/31/11
TestAmerica Savannah	Connecticut	State Program	1	PH-0161	03/31/11
TestAmerica Savannah	Delaware	State Program	3	N/A	06/30/11
TestAmerica Savannah	Florida	NELAC	4	E87052	06/30/11
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A	06/30/11
TestAmerica Savannah	Georgia	State Program	4	803	06/30/11
TestAmerica Savannah	Guam	State Program	9	09-005r	04/17/11
TestAmerica Savannah	Hawaii	State Program	9	N/A	06/30/11
TestAmerica Savannah	Illinois	NELAC	5	200022	11/30/11
TestAmerica Savannah	Indiana	State Program	5	N/A	06/30/11
TestAmerica Savannah	Iowa	State Program	7	353	07/01/11
TestAmerica Savannah	Kansas	NELAC	7	E-10322	10/31/11
TestAmerica Savannah	Kentucky	Kentucky UST	4	18	11/17/11
TestAmerica Savannah	Kentucky	State Program	4	90084	12/31/11
TestAmerica Savannah	Louisiana	NELAC	6	30690	06/30/11
TestAmerica Savannah	Louisiana	NELAC	6	LA100015	12/31/11
TestAmerica Savannah	Maine	State Program	1	GA00006	08/16/12
TestAmerica Savannah	Maryland	State Program	3	250	12/31/11
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006	06/30/11
TestAmerica Savannah	Michigan	State Program	5	9925	06/30/11
TestAmerica Savannah	Mississippi	State Program	4	N/A	06/30/10
TestAmerica Savannah	Montana	State Program	8	CERT0081	01/01/11
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah	06/30/11
TestAmerica Savannah	Nevada	State Program	9	GA6	07/31/11
TestAmerica Savannah	New Jersey	NELAC	2	GA769	06/30/11
TestAmerica Savannah	New Mexico	State Program	6	N/A	06/30/10
TestAmerica Savannah	New York	NELAC	2	10842	04/01/11
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269	12/31/11
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701	07/31/11
TestAmerica Savannah	Oklahoma	State Program	6	9984	08/31/11
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474	06/30/11
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006	01/01/12
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244	12/30/11
TestAmerica Savannah	South Carolina	State Program	4	98001	06/30/11
TestAmerica Savannah	Tennessee	State Program	4	TN02961	12/31/11
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX	11/30/11
TestAmerica Savannah	Vermont	State Program	1	87052	11/16/11
TestAmerica Savannah	Virginia	State Program	3	302	06/30/11
TestAmerica Savannah	Washington	State Program	10	C1794	06/10/11
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94	06/30/11
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C	12/31/10
TestAmerica Savannah	Wisconsin	State Program	5	999819810	08/31/11
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q	06/30/11

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.
* Any expired certifications in this list are currently pending renewal and are considered valid.

TestAmerica Savannah

4/11/11

MJW CORPORATION
Radiation Consulting Professionals

April 21, 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 KPM041 has been reviewed for quality assurance validation. Data was reported for PCB's for 14 samples as requested by Geotechnology, Inc. The 14 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 been approved for use as no samples required qualification.

- **PMA-MW-6D-0211 (Lab ID: 680-65991-1)**
- **PMA-MW-5M-0211 (Lab ID: 680-65991-2)**
- **PMA-MW-4D-0211 (Lab ID: 680-65991-3)**
- **PMA-MW-4S-0211 (Lab ID: 680-65991-4)**
- PMA-MW-3M-0211Lab ID: 680-65991-5)
- PMA-MW-3S-0211 (Lab ID: 680-65991-6)
- PMA-MW-1M-0211 (Lab ID: 680-65991-7)
- PMA-MW-1S-0211 (Lab ID: 680-65991-8)
- PMA-MW-1S-0211MS (Lab ID: 680-65991-8 MS)
- PMA-MW-1S-0211 MSD (Lab ID: 680-65991-8 MSD)
- PMA-MW-2M-0211 (Lab ID: 680-65991-9)
- PMA-MW-2M-0211-AD (Lab ID: 680-65991-10 FD)
- PMA-MW-2S-0211 (Lab ID: 680-65991-11)
- PMA-MW-2S-0211-EB (Lab ID: 680-65991-12 EB)

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.

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QUALITY ASSURANCE REPORT

Solutia Inc.
W.G. Krummrich Facility
Sauget, Illinois

1st Quarter 2011 Data Validation Report
WGK-PCB Site
SDG: KPM041

Prepared for

GEOTECHNOLOGY, INC.
11816 Lackland Road, Suite 150
St. Louis, MO 63146

April 2011

MJW

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1900 Sweet Home Road
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Project # 2010-1918

DATA ASSESSMENT NARRATIVE
(ORGANICS)

ORGANIC DATA ASSESSMENT

Functional Guidelines for Evaluating Organic Analysis

CASE NO.: _____ SDG NO.: KPM041 LABORATORY: Test America
SITE: Solutia W.G. Krummrich Plant (PCB 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.

All data is fully acceptable and usable.

Reviewer's Signature: _____ Date: 4/21/2011

MJW Approval: _____ Date: 4/21/2011

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.

The surrogate recovery for sample PMA-MW-04S-1210 is 0%. This was due to the fact that the sample results were out of range and had to be diluted and rerun. Thus, qualification of this sample is not required.

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. LABORATORY CONTROL SAMPLE/DUPLICATE, LCS/LCSD

Although the LCS was out of control for Nonachlorobiphenyl, no data was qualified as all other QC was acceptable.

5. 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.

6. 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.

7. 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.

8. 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".

The following analytes in the sample shown were qualified for %RSD and %D:

No action necessary.

9. 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.

10. 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.

Form X was not completed for those samples in which there was a positive hit for PCB's.

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

11. CONTRACT PROBLEMS NON-COMPLIANCE: **None**

12. FIELD DOCUMENTATION:

A field duplicate was analyzed for sample PMA-MW-02M-1210 and all %RPD's were acceptable.

13. OTHER PROBLEMS: **None**

14. This package contains reextractions, reanalyses or dilutions. Upon reviewing the QA results, the following Form 1(s) are identified to be used.

None