

**GEORGIA VOLUNTARY REMEDIATION PROGRAM
SEMIANNUAL STATUS REPORT**

Date: February 16, 2015

Site Name: Former Oxford Chemical Property, HSRA Sublisted Property of the General Electric International, Inc. Apparatus Service Center Site, 5035 Peachtree Boulevard, Chamblee, DeKalb County, Georgia HSI No. 10072.

Site Address: 5001 Peachtree Boulevard, Chamblee, DeKalb County, Georgia

This electronic copy of the VRP Semiannual Status Report for the above referenced property is complete, identical to the paper copy, and virus free.

REPORT

**Voluntary Remediation Program
Semiannual Status Report
Former Oxford Chemical Property
5001 Peachtree Boulevard
DeKalb County
Chamblee, Georgia**

**Project Number
2015.0023.12**

**Report Date:
February 16, 2015**



We're here for you

UNITED CONSULTING





February 16, 2015

Jake Carpenter
Environmental Engineer
Response and Remediation Program
Land Protection Branch, GA EPD
2 Martin Luther King Jr. Drive
Suite 1054 East
Atlanta, GA 30334-9000

RE: Report of Voluntary Remediation Program Semiannual Status Report
Former Oxford Chemical Property
5001 Peachtree Boulevard
Chamblee, DeKalb County, Georgia
Project No. 2015.0023.01

Dear Mr. Carpenter:

United Consulting is submitting this report for the above-referenced project on behalf of Rathon Corporation and The Hillshire Brands Company. This report describes activities that have been performed from September 24, 2014 through January 1, 2015, and projected work to be performed during the next six month period. Please contact me if you have any questions or comments regarding the information contained herein.

Sincerely,

UNITED CONSULTING

Leonard J. Diprima, Jr., P.G.
Project Manager/Senior Environmental Specialist

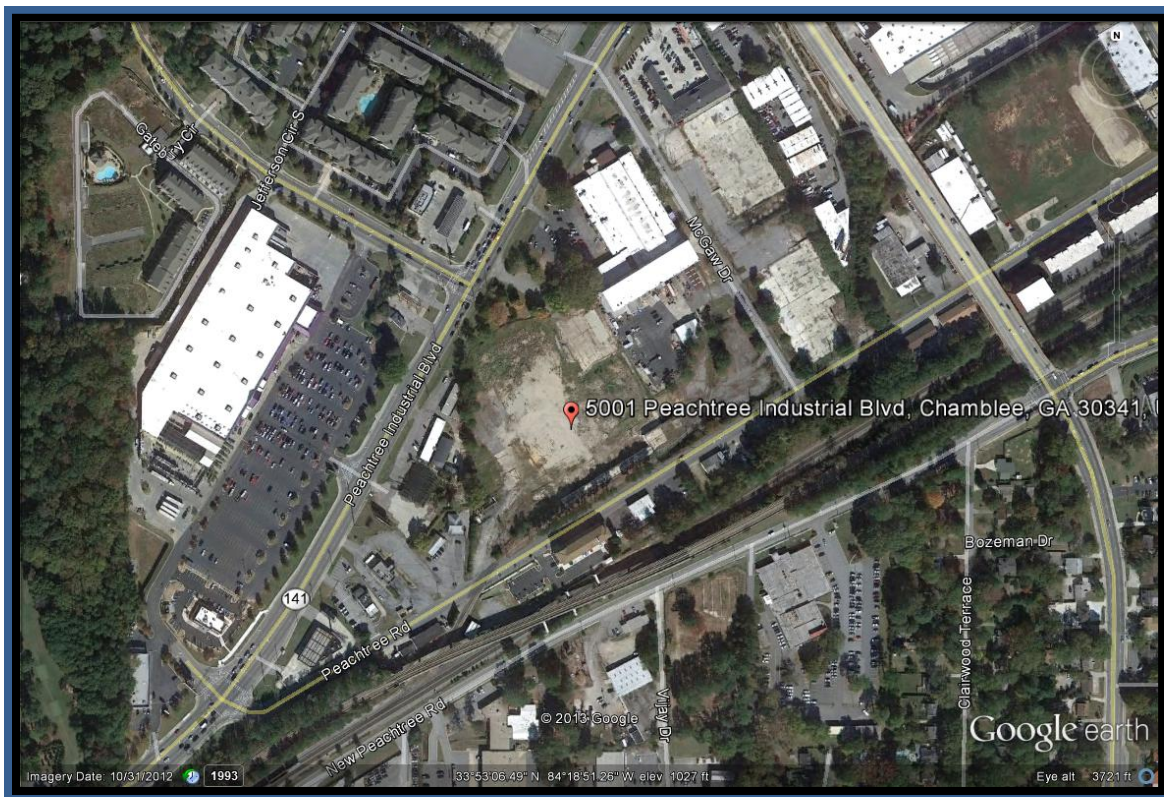
Russell C. Griebel, P.G., C.P.G.
Executive Vice President

Cc: Jason Metzger, GAEPD Response Development Unit 2 Coordinator, w/o Attachments
Michael Glade, P.E., Rathon Corporation
Jeremy Hall, Esquire, The Hillshire Brands Company
Andrea Rimer, Esquire, Troutman Sanders LLP

LJD/RCG/tl

SharePoint: 2015.0023.12

Voluntary Remediation Program Semiannual Status Report



Former Oxford Chemical Property 5001 Peachtree Boulevard, Chamblee, DeKalb County, Georgia

HSRA Sublisted Property of the
General Electric International, Inc. Apparatus Service Center Site
5035 Peachtree Boulevard, Chamblee, DeKalb County, Georgia
HSI No. 10072

Rathon Corporation
P.O. Box 4030, Suite
Golden, CO 80401

Prepared For

The Hillshire Brands Company
400 S. Jefferson Street
Chicago, IL 60607

Prepared by

United Consulting
625 Holcomb Bridge Road
Norcross, Georgia 30071
Project No. 2015.0015.12
February 16, 2015

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1.0 INTRODUCTION

United Consulting (United) has prepared this Voluntary Remediation Program (VRP) Semiannual Status Report (Status Report) for the Former Oxford Chemical property located at 5001 Peachtree Boulevard, Chamblee, DeKalb County, Georgia; Tax Parcel No. 18-278-14-002 (Site). The Site was formerly regulated under the Georgia Environmental Protection Division (EPD) Hazardous Site Response Act (HSRA) Program as a sublisted property to the immediately adjacent General Electric International, Inc. Apparatus Service Center site (GE Facility), 5035 Peachtree Boulevard, Chamblee, Georgia, Hazardous Site Inventory (HSI) No. 10786.

On April 1, 2013, a Voluntary Investigation and Remediation Plan Application (VIRP) was submitted to the EPD HSRA Program for the Site. On July 10, 2013, the EPD approved the VIRP with comments and entered the Site into the VRP. The most recent semi-annual status report for the Site was submitted to EPD on September 24, 2014. This Status Report has been prepared to present the activities conducted from September 25, 2014 through January 1, 2015 for the Site in accordance with the VRP.

On January 12, 2015, Leonard Diprima, P.G., the Georgia Professional Geologist responsible for overseeing the implementation of the Former Oxford Chemical VRP Site, relocated to United Consulting located at 625 Holcomb Bridge Road, Norcross, Georgia. The continued implementation of the VRP for the Site was transferred to United Consulting at this time for continued oversight by Mr. Diprima. Note that the work conducted and described in this Status Report was conducted by Woodard & Curran during Mr. Diprima's tenure.

2.0 WORK PERFORMED THIS PERIOD

The activities currently identified to be performed at the Site under the VRP are outlined in the following documents:

- VIRP dated March 31, 2013;
- EPD VIRP approval letter dated July 10, 2013; and
- VRP Semiannual Status Report dated September 24, 2014.

The activities that have been performed from September 24, 2014 through January 1, 2015 are as follows:

- Installation and sampling of five groundwater monitoring wells in the right-of-way (ROW) on the north side of Peachtree Boulevard to continue the groundwater delineation effort.

- Evaluation of the potential for vapor intrusion (VI) into existing structures on the Peachtree Village Partners (PVP) properties, including the collection of soil gas samples.

Details associated with these activities are presented below.

2.1 Groundwater Delineation

During this period Woodard & Curran continued the delineation of groundwater impacts related to releases associated with historical Oxford Chemical operations. To accomplish this objective, monitoring wells on the PVP properties to the southwest were sampled to obtain a current dataset, and additional monitoring wells were installed and sampled on the opposite side of Peachtree Boulevard. These efforts are summarized below.

2.1.1 Monitoring Well Installation and Sampling

As noted in the previous Semiannual Status Report, access was granted by the Georgia Department of Transportation (GDOT) in September 2015 to install five monitoring wells in the GDOT ROW in front of the Lowe's Home Improvement Center (Lowe's) on the northwest side of Peachtree Boulevard, across the street from the Site and the PVP properties. Previous efforts to obtain access from Lowe's have been unsuccessful. On October 6 and 7, 2014, five new monitoring wells (MW-27 through MW-31, Figure 1) were installed in the 1,300-foot right-of-way area beginning south of the intersection with Johnson Ferry Road to south of the intersection with Peachtree Road.

Between October 9 and 17, 2014, groundwater samples were collected from the five new monitoring wells across Peachtree Boulevard, the nine monitoring wells on the PVP properties (MW-17 through MW-21, MW-25, MW-26, MW-TX-S and MW-TX-W), and three onsite monitoring wells between the Site and Peachtree Boulevard (MW-7, MW-9, and MW-11). Based on previous analytical results from these areas, samples from each of the wells were analyzed for volatile organic compounds (VOCs) only. Boring logs and monitoring well construction logs for the five new monitoring wells are in Appendix A. Groundwater sampling forms for all sampling events are in Appendix B.

Sampling was conducted using the low-flow/low-stress sampling method in general accordance with current USEPA protocols (Groundwater Sampling, USEPA SESDPROC-301-R3) and the May 30, 2008 EPD Groundwater Sampling Guideline Memorandum. Field measurements of pH, conductivity, dissolved oxygen, oxidation-reduction potential and temperature were collected every five minutes until all parameters stabilized within approximately 10 percent for three consecutive readings. Upon stabilization of the field parameters, samples were collected for VOC analysis by Method 8260B.

Groundwater samples were secured in ice-filled coolers and hand delivered to Analytical Environmental Services of Atlanta, Georgia (AES) for analysis. Laboratory work orders, and chain-of-custody documents, which included information on project name and number, sampler(s) signature, project manager's name, sample matrix, sample identification/station ID

number, date and time of sample collection, total number of containers per sample station, requested analyses and number of containers per analyses per sample station, preservatives, and any other pertinent comments for the laboratory, were placed within each cooler for delivery. VOC samples were analyzed by Method 8260B.

Water table measurements were collected from all of the off-site monitoring wells and from several of the wells on the Site adjacent to the PVP properties on October 9, 2014. The water level measurements are presented in Table 1, and a potentiometric surface map is shown as Figure 2. As noted in prior reporting, groundwater is flowing across the Site from the southeast to the west-northwest as it flows offsite.

2.1.2 Groundwater Analytical Results

Groundwater analytical results for the monitoring wells sampled are summarized in Table 2, and compared with non-residential Risk Reduction Standards (RRS) and Type 1 VRP delineation standards. Laboratory data reports are included in Appendix C.

Figure 3 depicts the extent of specific contaminant groups with concentrations greater than non-residential RRS. For clarity, the VOCs of interest have been grouped into three categories based on degradation pathways and/or commonly co-located compounds at the Site:

- Chlorinated Ethenes (tetrachloroethene [PCE], trichloroethene [TCE], cis-/trans-1,2-dichloroethene [DCE], and vinyl chloride);
- Chlorinated Benzenes/Naphthalene (1,2,4-trichlorobenzene [TCB], 1,2-/1,3-/1,4-dichlorobenzene [DCB], chlorobenzene, and naphthalene); and
- Benzene (and other petroleum-related constituents).

Based on a review of the most recent analytical results, groundwater flow direction, and historic land use, several conclusions are suggested:

- A chlorinated ethene plume emanates from the northern end of the Site, from the former tank storage and empty drum storage areas, toward the west-southwest, and has not been delineated on the downgradient edge to RRS.
- A chlorinated benzene plume emanates from the western edge of the Site, from the former above ground tank farm, toward the west-southwest, and has not been delineated on the downgradient edge to RRS.
- Two chlorinated ethene plumes are located on portions of the PVP properties, one centered at MW-18, and the other centered at MW-TX-S and TCE at MW-31. A benzene plume is also located at MW-TX-S and MW-30/31. Based on a review of groundwater flow direction and historic VOC concentrations at wells in the southwest portion of the Site, it appears that each of these three plumes is related to releases from sources

unrelated to the former Oxford Chemical property. The area south and east of the intersection of Peachtree Boulevard and Peachtree Road was previously lined with service stations and automotive repair shops prior to construction of the mass transit rail lines in the 1980s (see Figure 4), and leaking underground storage tanks were previously reported at the existing Texaco service station at this intersection.

2.2 Vapor Intrusion Evaluation

Due to the presence of VOCs in groundwater under the PVP properties, the potential for vapor intrusion at these parcels was evaluated, and vapor intrusion sampling was performed, as described below. It is noted that a VI evaluation will not be performed on the former Oxford Chemical property at this time based on the absence of structures on the property. Future construction on the former Oxford Chemical property would be required to prevent or mitigate vapor intrusion into enclosed structures.

The potential for VI at buildings on the west side of Peachtree Boulevard will be evaluated once further groundwater delineation activities have been performed.

2.2.1 Initial Screening

The most recent USEPA Vapor Intrusion Screening Level (VISL) calculator (May 2014) was used to determine groundwater concentrations at which the potential risk associated with VI exceeded corresponding target risk levels (1×10^{-5} for carcinogenic compounds and 1.0 hazard index for non-carcinogenic compounds, under a non-residential exposure scenario). Available groundwater data for monitoring wells on the PVP properties, as well as those wells in the GDOT right-of way and along the western perimeter of the Site were then screened against the calculated VISLs. Calculated groundwater VISLs are shown in Table 2, and concentrations which exceed the corresponding non-residential VISLs are highlighted in Figure 5.

Each of the PVP properties was then evaluated for the need for further assessment based on this initial screening, as follows:

- 4961 Peachtree Boulevard (garden center): Potential for VI identified based on concentrations of TCE, 1,2,4-TCB and naphthalene in wells MW-7, MW-20, MW-21, EW-A1, and EW-A2.
- 4949 Peachtree Boulevard (vacant restaurant): Potential for VI identified based on concentrations of 1,2,4-TCB, 1,4-DCB, naphthalene, and vinyl chloride in wells MW-18 and MW-19 (although as noted above, the presence of vinyl chloride does not appear to be related to the Site).
- 4945 Peachtree Boulevard (Hertz car rental agency): Potential for VI identified based on concentrations of 1,2,4-TCB, 1,4-DCB, and naphthalene in well MW-26.

- 4930 Peachtree Road (Texaco gas station): Potential for VI identified based on concentrations of benzene and vinyl chloride in well MW-TX-S. As noted above, however, the presence of these compounds does not appear to be related to the Site, and therefore, further evaluation for VI at this location will not be conducted as part of the VRP.
- 4934 Peachtree Road (hair salon and music store): Potential for VI identified at the hair salon based on concentrations of vinyl chloride in well MW-18. As noted above, however, the presence of vinyl chloride does not appear to be related to the Site, and therefore, further evaluation for VI at this location will not be conducted as part of the VRP. Based on VOC concentrations in wells MW-17, MW-5, and EW-D9, there does not appear to be a potential VI risk at the music store.

2.2.2 Soil Gas Sampling

Based on the initial VI screening, three PVP properties were selected for further assessment: the garden center, the vacant restaurant, and the Hertz car rental agency. The proposed sampling was discussed with EPD at a meeting on December 2, 2014. Soil gas sampling was performed at these properties between December 9 and 11, 2014, as follows:

- 4945 Peachtree Boulevard (Hertz car rental agency): Based on the owner's preference that samples not be collected inside the building, two sub-slab soil gas samples were collected from underneath the concrete slab immediately outside the building, within alcoves connected directly to the building slab. One sample was collected from the entrance alcove on the north side of the building, and a second sample was collected from the rear alcove on the east side of the building.
- 4949 Peachtree Boulevard (vacant restaurant): Two sub-slab soil gas samples collected from inside the building, one in the front half of the building and one in the back half of the building.
- 4961 Peachtree Boulevard (garden center): Two permanently enclosed structures are present on this property. The northern building is used only for storage. Two sub-slab soil gas samples were collected from inside this building, one in the northern half and one in the southern half of the building. The southern building houses the shop and offices. Based on the owner's preference that samples not be collected inside the building, two sub-slab soil gas samples were collected from underneath the concrete slab immediately in front of the building, and one deep soil gas sample (approximately 9 feet below grade) was collected from directly behind the building. (Due to an elevation change, the floor slab of the building sits approximately six feet below grade at the rear of the building.)

Sample locations are shown on Figure 6.

Sub-slab soil gas samples were obtained by coring through the existing concrete slab to a depth of three inches below the concrete. The space between each vapor collection point and the surrounding concrete was sealed. The tightness of the seal was tested by placing a shroud over the sample point, filling the shroud with helium, and testing sub-slab vapors drawn from the sample point for the presence of helium. Polyethylene tubing was used to connect the sample points to laboratory-supplied six-liter SUMMA canisters. After purging the volume of air in the tubing, the canister was opened, and soil gas was collected at a maximum flow rate of 200 ml/minute.

The deep soil gas sample was obtained using a Geoprobe® rig to drive a rod to the target depth and then retract the rod slightly to create the void space from which the vapor sample was extracted into the SUMMA canister.

Collected soil gas samples were submitted to TestAmerica Laboratories in Knoxville, Tennessee for analysis by USEPA Method TO-15. Results were reported for only those compounds present in groundwater samples collected from the Site.

2.2.3 Soil Gas Sample Results

Soil gas sample results are provided in Table 3 and summarized on Figure 6. Laboratory reports are provided in Appendix C. Soil gas concentrations were compared to soil gas screening levels calculated using the VISL calculator, using the same target risk levels noted above. In summary, only four VOCs were detected in the samples: benzene, cis-1,2-DCE, 4-methyl-2-pentanone, and PCE. All concentrations were well below respective VISLs. As such, no further assessment for VI associated with releases from the former Oxford Chemical property is necessary.

3.0 WORK TO BE PERFORMED

The primary tasks anticipated to be completed during the next six months for the period ending July 1, 2015 for the VRP are presented below.

Anticipated Tasks through July 1, 2015:

- Continued delineation of groundwater on offsite, downgradient properties until sufficient delineation has been achieved to conclude that there are no exposures to possible downgradient receptors. Continued efforts will be made to obtain access to additional downgradient properties, including Lowe's, Zaxby's, Discount Tire, and/or Peachtree Golf Club properties, as needed.
- VI evaluations will also be conducted on downgradient properties, as needed, based on the results of off-site groundwater delineation.

- If groundwater delineation is achieved during the next six month period, groundwater modeling will be conducted to determine the point of compliance for groundwater, the current state of the plumes relative to equilibrium, and to begin to establish a preliminary groundwater monitoring period for VRP compliance.

The tasks required to complete the VIRP are presented on Figure 7, a revised estimated schedule. This schedule will be revised with the submittal of each VRP Semiannual Status Report, as required.

4.0 PROFESSIONAL SERVICES HOURS THIS PERIOD

A total of approximately 717 professional service hours were completed by Woodard & Curran in the four-month period from September 1, 2014 through December 31, 2014. Of these total hours, 103 hours were utilized by the Professional Geologist overseeing the VRP project. The approximate distribution of hours per month utilized for implementation of the VRP during this period is presented in Table 4.

5.0 PE/PG CERTIFICATION

I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional geologist who is registered with the Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Leonard J. Diprima, Jr. / Georgia PG #949

February 6, 2015

Printed Name and GA PE/PG Number

Date



Signature and Stamp



UNITED CONSULTING

TABLES

Table 1
Watable Elevation Data - October 9, 2014

	2055 Sugarloaf Circle Suite 175 Duluth, Georgia 30097 T 770.622.6766 F 770.396.0095				Job Number	226278.00		Date	10/9/2014	
					Client	Rathon Corp		Sampler	JDK	
					Project	Former Oxford Chemical Site		Time In/Out	7:15	10:25
					Weather	P Cloudy Warm				
WATER LEVEL DATA										
Well I.D.	Time	Top of Casing Elevation (feet)	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Colum Height (feet)	Water Table Elevation (feet)	Notes/Other Remarks	
EW-D9	7:32	1023.65		12.05	29.45		17.40	1011.60		
EW-D8	7:38	1022.91		9.65	27.70		18.05	1013.26		
EW-D7	7:42	1023.72		10.03	30.35		20.32	1013.69		
EW-D3	-	1024.23		-	-		-	-	Could not open well	
EW-D2	7:53	1022.86		8.51	28.10		19.59	1014.35	Old well we uncovered during excavation	
EW-D6	8:02	1026.4		14.32	29.50		15.18	1012.08		
EW-A1	-	1026.81		-	-		-	-	Could not open well	
EW-A2	8:15	1023.41		13.93	28.90		14.97	1009.48		
EW-A3	8:18	1022.95		14.55	24.70		10.15	1008.40		
EW-A4	8:20	1022.89		14.90	29.15		14.25	1007.99		
EW-A5	8:22	1022.86			15.00			1022.86	Dry	
EW-A6	8:26	1022.12		16.15	29.25		13.10	1005.97		
MW-7	8:38	1016.61		11.05	23.68		12.63	1005.56		
EW-A7	8:48	1020.69		14.78	29.80		15.02	1005.91		
MW-11	8:49	1018.15		12.10	28.96		16.86	1006.05		
EW-A8	9:00	1021.7		14.52	29.15		14.63	1007.18		
EW-A9	9:03	1021.91		14.00	29.40		15.40	1007.91		
MW-9	9:05	1017.84		11.38	15.59		4.21	1006.46		
EW-A10	9:08	1021.67		13.12	24.63		11.51	1008.55		
PZ-1	9:11	1020.31		11.90	19.30		7.40	1008.41		
PZ-2	9:15	1019.55		12.22	19.00		6.78	1007.33		
MW-17	9:21	1019.03		10.17	22.31		12.14	1008.86		
MW-18	9:24	1019.2		11.61	24.40		12.79	1007.59		
MW-19	9:26	1011.41		9.55	18.95		9.40	1001.86		
MW-20	9:33	1011.59		7.20	14.80		7.60	1004.39		
MW-21	9:36	1018.82		11.60	19.20		7.60	1007.22		
MW-25	9:41	1015.04		11.40	19.50		8.10	1003.64		
MW-26	9:43	1009.8		11.10	19.40		8.30	998.70		
MW-TX-S	9:46	1007.41		0.39	15.10		14.71	1007.02		
MW-TX-W	9:49	1008.1		10.10	14.10		4.00	998.00		
MW-27	9:53	1019.03		16.37	24.00		7.63	1002.66		
MW-28	9:57	1014.33		12.55	23.75		11.20	1001.78		
MW-29	10:00	1010.16		11.65	23.75		12.10	998.51		
MW-30	10:02	1005.13		12.78	23.85		11.07	992.35		
MW-31	10:04	1005.34		15.11	23.70		8.59	990.23		

Groundwater Analytical Data - Off-Site Monitoring Wells Sampled October 2014
Former Oxford Chemicals VRP Site

[illegible]

All concentrations are in units of micrograms per liter (ug/l).

Only compounds detected in one or more monitoring wells are shown

U = Compound not detected above method quantitation limit

NA - Sample not analyzed for compound

14 - Constituent detected above Type 1 RRS

TABLE 3
Soil Gas Sample Results
Peachtree Village Properties

Constituents	USEPA VISL for Soil Gas	Hertz		Vacant Restaurant		Garden Center				
		SV-4945-3	SV-4945-4	SV-4949-1	SV-4949-2	SV-4961-5	SV-4961-6	SV-4961-7	SV-4961-8	SV-4961-9
1,1,1-Trichloroethane		< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11
1,1-Dichloroethane		< 8.1	< 8.1	< 8.1	< 8.1	< 8.1	< 8.1	< 8.1	< 8.1	< 8.1
1,1-Dichloroethene		< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9
1,2,4-Trichlorobenzene		< 74	< 74	< 74	< 74	< 74	< 74	< 74	< 74	< 74
1,2-Dichlorobenzene		< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12
1,3-Dichlorobenzene		< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12
1,4-Dichlorobenzene		< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12
4-Methyl-2-pentanone (MIBK)	440,000	< 20	< 20	< 20	< 20	< 20	< 20	<u>22</u>	< 20	< 20
Acetone		< 120	< 120	< 120	< 120	< 120	< 120	< 120	< 120	< 120
Benzene	520	< 6.4	< 6.4	< 6.4	< 6.4	< 6.4	<u>10</u>	<u>7.2</u>	< 6.4	< 6.4
Chlorobenzene		< 9.2	< 9.2	< 9.2	< 9.2	< 9.2	< 9.2	< 9.2	< 9.2	< 9.2
cis-1,2-Dichloroethene	NA	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	<u>9.2</u>	< 7.9	< 7.9	< 7.9
Ethylbenzene		< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7
Isopropylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Methylene Chloride		< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 17
m-Xylene & p-Xylene		< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7
Naphthalene		< 26	< 26	< 26	< 26	< 26	< 26	< 26	< 26	< 26
o-Xylene		< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7	< 8.7
Styrene		< 8.5	< 8.5	< 8.5	< 8.5	< 8.5	< 8.5	< 8.5	< 8.5	< 8.5
Tetrachloroethene	5,840	< 14	< 14	<u>15</u>	< 14	< 14	< 14	<u>33</u>	< 14	< 14
Toluene		< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5
trans-1,2-Dichloroethene		< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9	< 7.9
Trichloroethene		< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11
Vinyl chloride		< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1

NOTES:

All results in ug/m3.

VISLs calculated based on commercial exposure, 10⁻⁵ cancer risk, 1.0 non-cancer hazard, 0.03 soil gas to indoor air attenuation factor.

VISLs calculated only for detected constituents. Detections are **bold/underlined**.

Table 4
Professional Service Hours
September 1, 2014 through December 31, 2014

Company	Month/Year	Project Manager / P.G. hours	Total Hours Worked
Woodard & Curran	September 2014	47.25	448.75
Woodard & Curran	October 2014	22.75	176.25
Woodard & Curran	November 2014	11.25	32.5
Woodard & Curran	December 2014	21.75	59.5
Total Hours		103.00	717.00

Note: The above hours do not include subcontractor hours worked for Woodard & Curran.

FIGURES



Legend

Well Type

- Abandoned Well
- Dual Phase Extraction Well
- GE Well
- Rathon Well/Piezometer

FIGURE 1

MONITORING WELL LOCATION MAP

FORMER OXFORD CHEMICAL VRP SITE

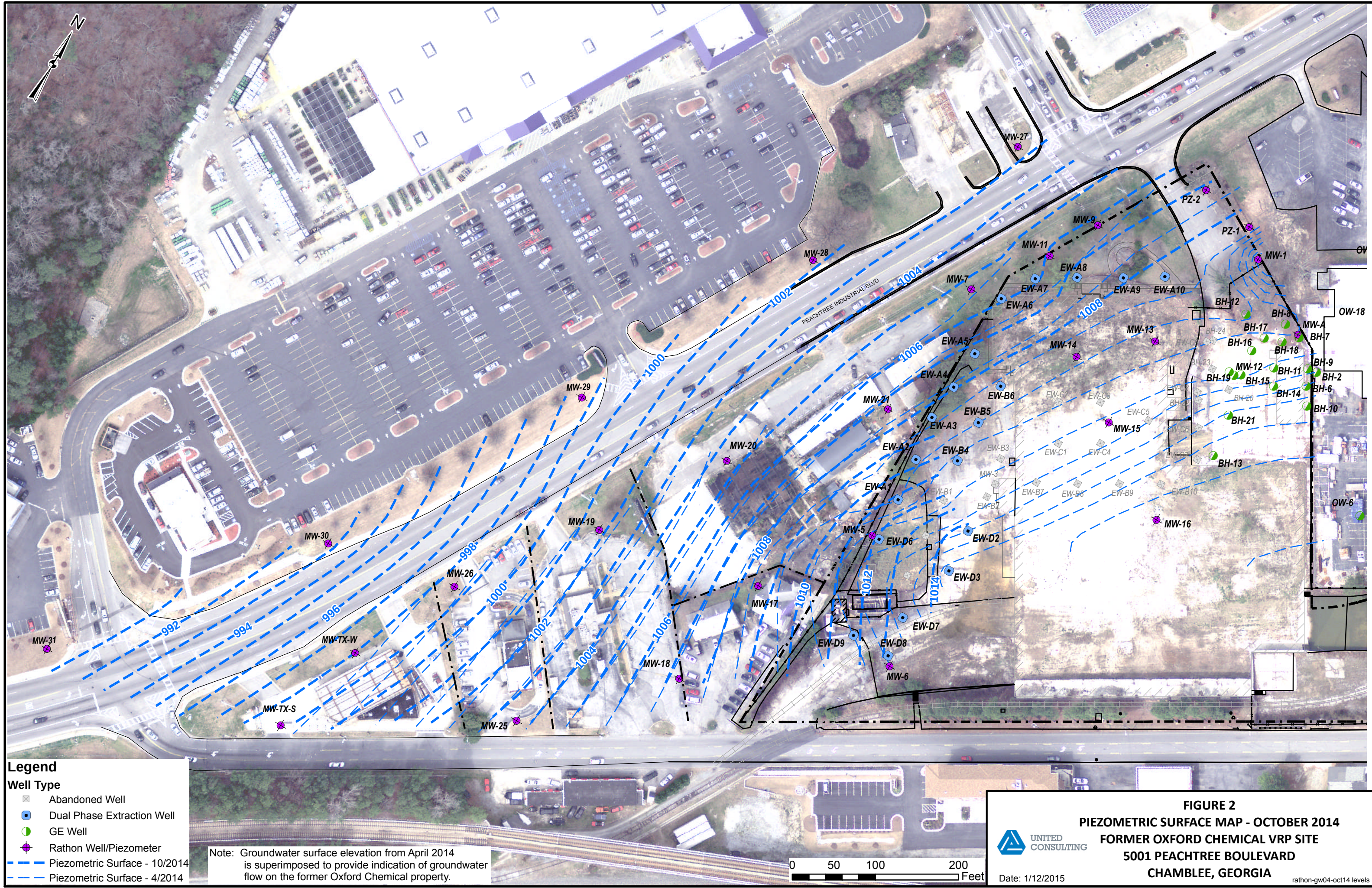
5001 PEACHTREE BOULEVARD

CHAMBLEE, GEORGIA

UNITED CONSULTING

Date: 1/12/2015

rathon-gw04-wellocs

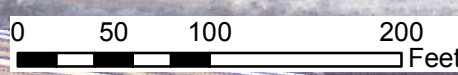


Legend

Well Type

- Abandoned Well
- Dual Phase Extraction Well
- GE Well
- Rathon Well/Piezometer
- Piezometric Surface - 10/2014
- Piezometric Surface - 4/2014

Note: Groundwater surface elevation from April 2014 is superimposed to provide indication of groundwater flow on the former Oxford Chemical property.





UNITED CONSULTING

FIGURE 2

PIEZOMETRIC SURFACE MAP - OCTOBER 2014

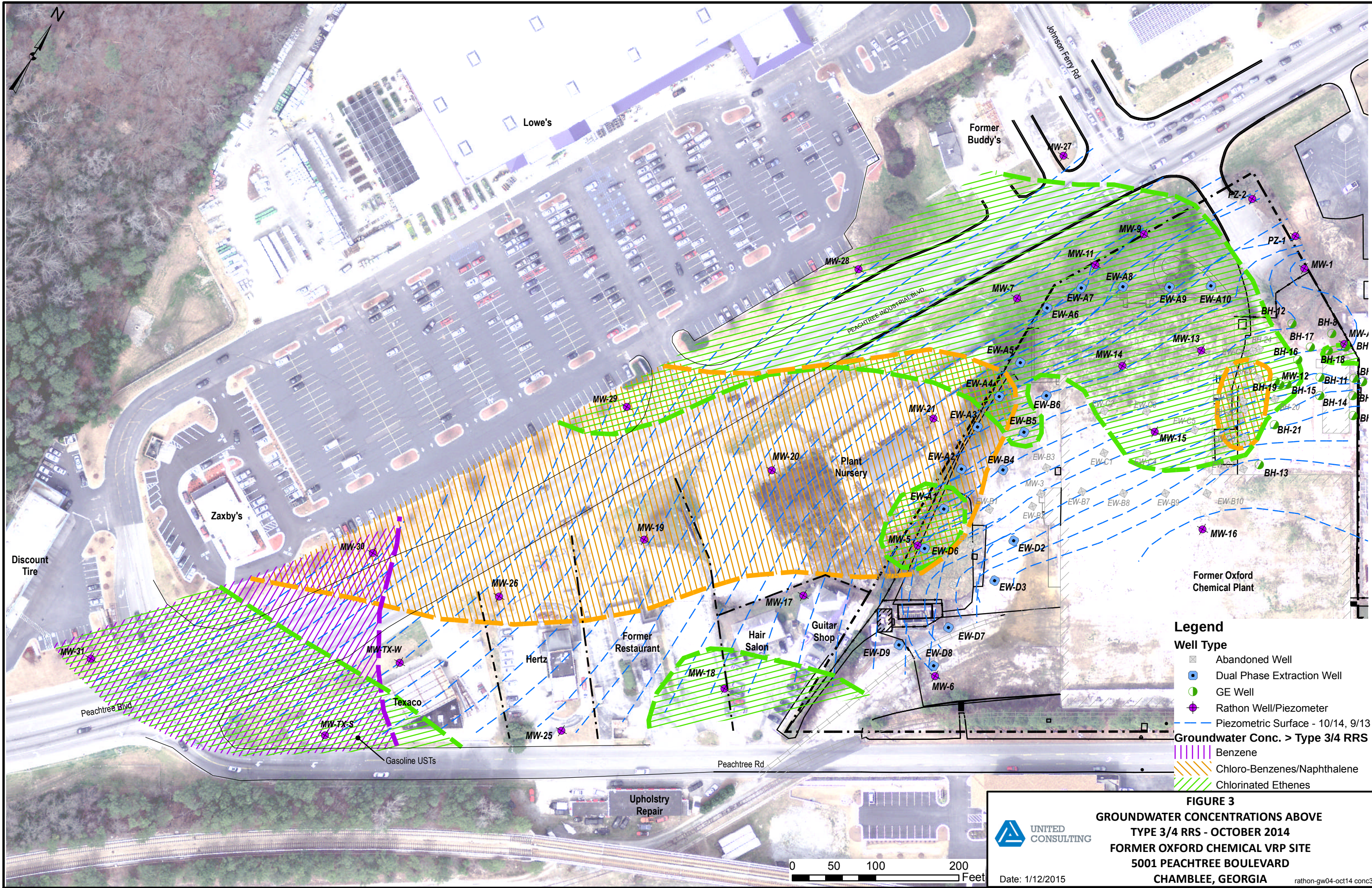
FORMER OXFORD CHEMICAL VRP SITE

5001 PEACHTREE BOULEVARD

CHAMBLEE, GEORGIA

Date: 1/12/2015

rathon-gw04-oct14 levels



Legend
Well Type

Abandoned Well

Dual Phase Extraction Well

GE Well

Rathon Well/Piezometer

GWLevels-oct2014

tax parcels

Groundwater Conc. > Type 3/4 RRS

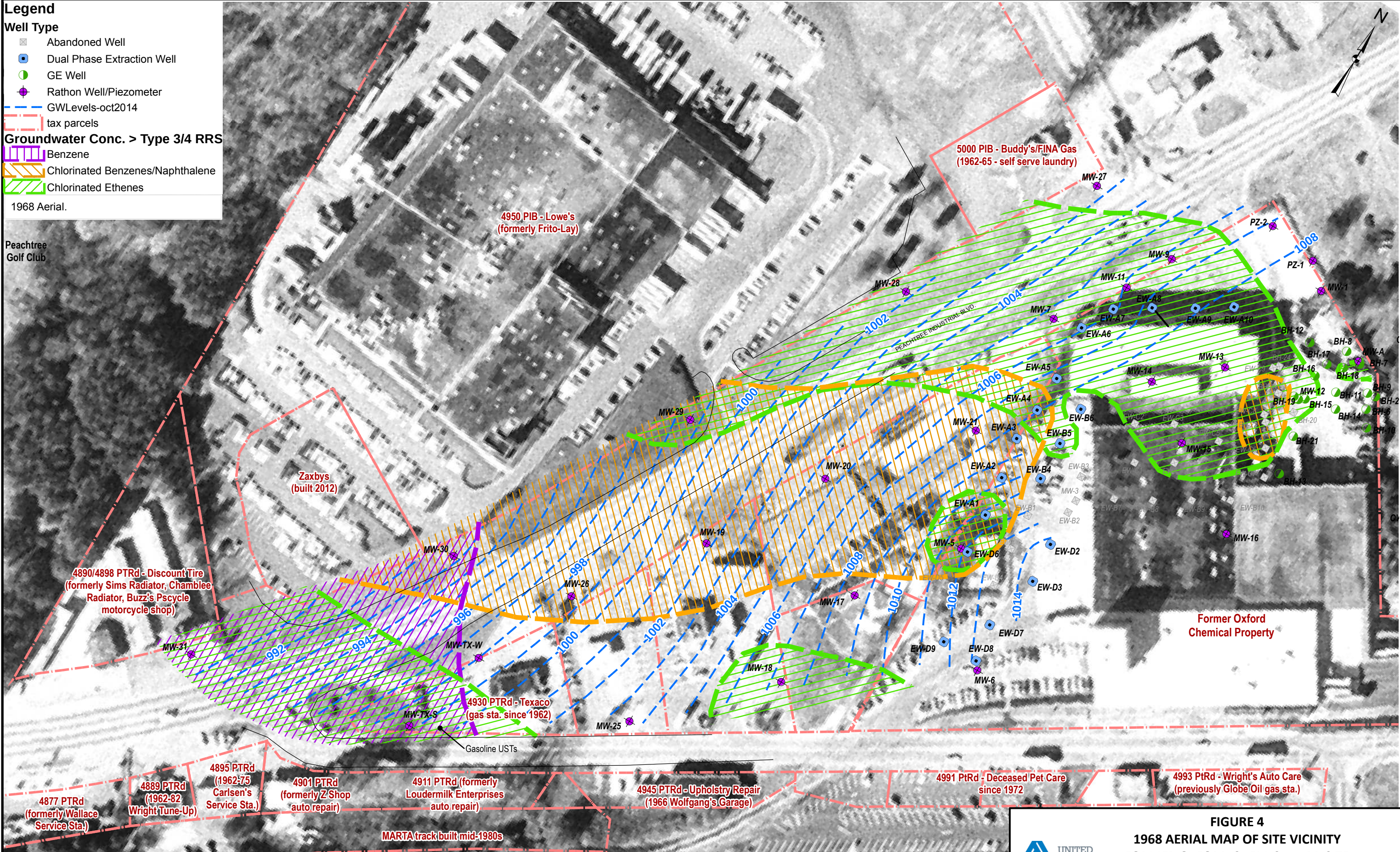
Benzene

Chlorinated Benzenes/Naphthalene

Chlorinated Ethenes

1968 Aerial.

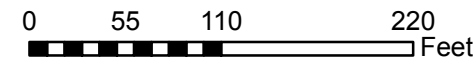
Peachtree Golf Club

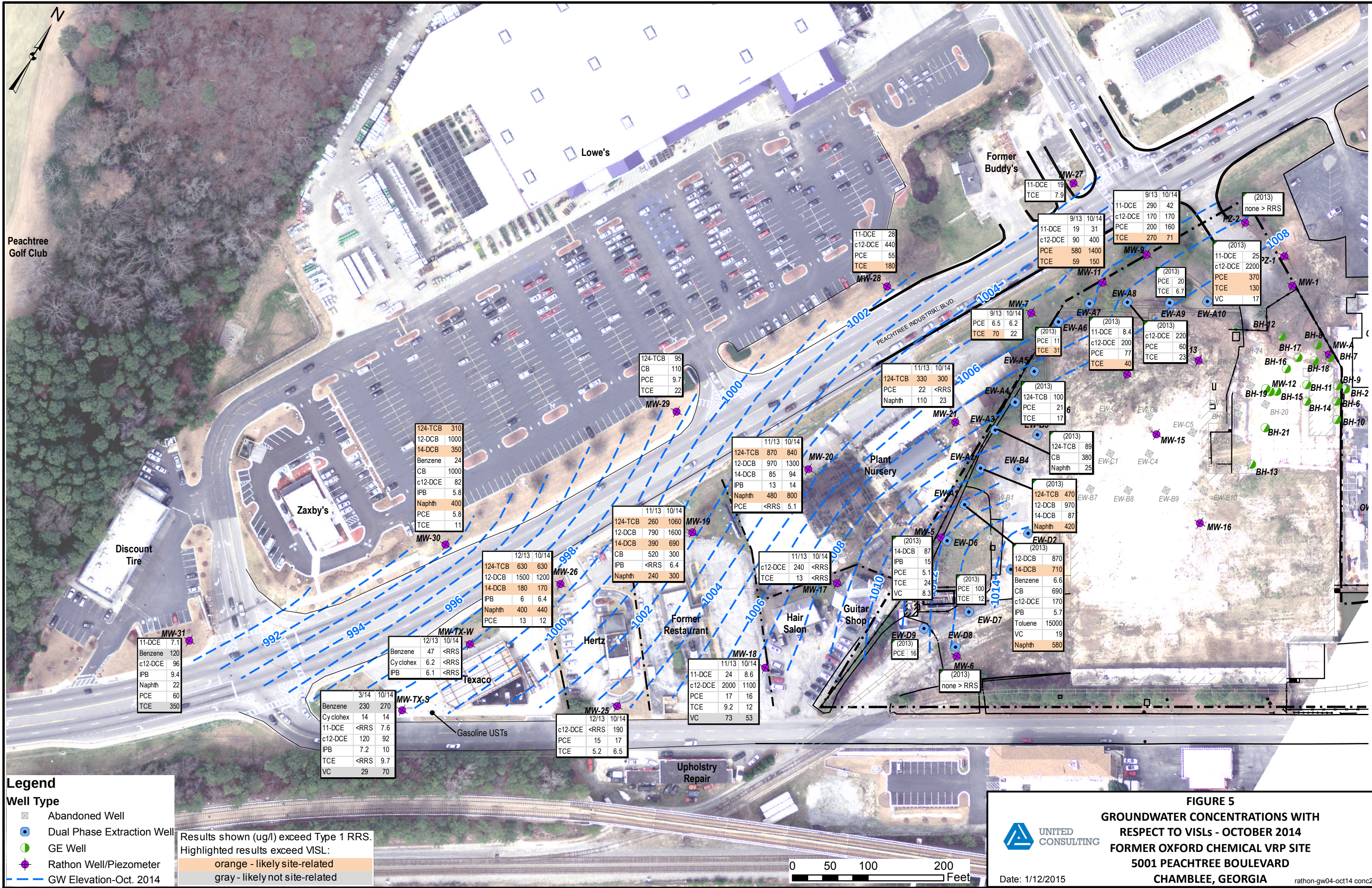


Date: 1/12/2015

FIGURE 4
1968 AERIAL MAP OF SITE VICINITY
FORMER OXFORD CHEMICAL VRP SITE
5001 PEACHTREE BOULEVARD
CHAMBLEE, GEORGIA

rathon-qw04-oct14-1968aerial-PLUMES





Legend

Well Type

- Abandoned Well
- Dual Phase Extraction Well
- GE Well
- Rathon Well/Piezometer
- GW Elevation-Oct. 2014

Results shown (ug/l) exceed Type 1 RRS.
Highlighted results exceed VISL:
orange - likely site-related
gray - likely not site-related



UNITED CONSULTING

FIGURE 5

GROUNDWATER CONCENTRATIONS WITH RESPECT TO VISLs - OCTOBER 2014

FORMER OXFORD CHEMICAL VRP SITE

5001 PEACHTREE BOULEVARD

CHAMBLEE, GEORGIA

Date: 1/12/2015

rathon-gw04-oct14 conc2



Well Type

- Soil Vapor Sample Locations
- Abandoned Well
- Dual Phase Extraction Well
- Rathon Well/Piezometer

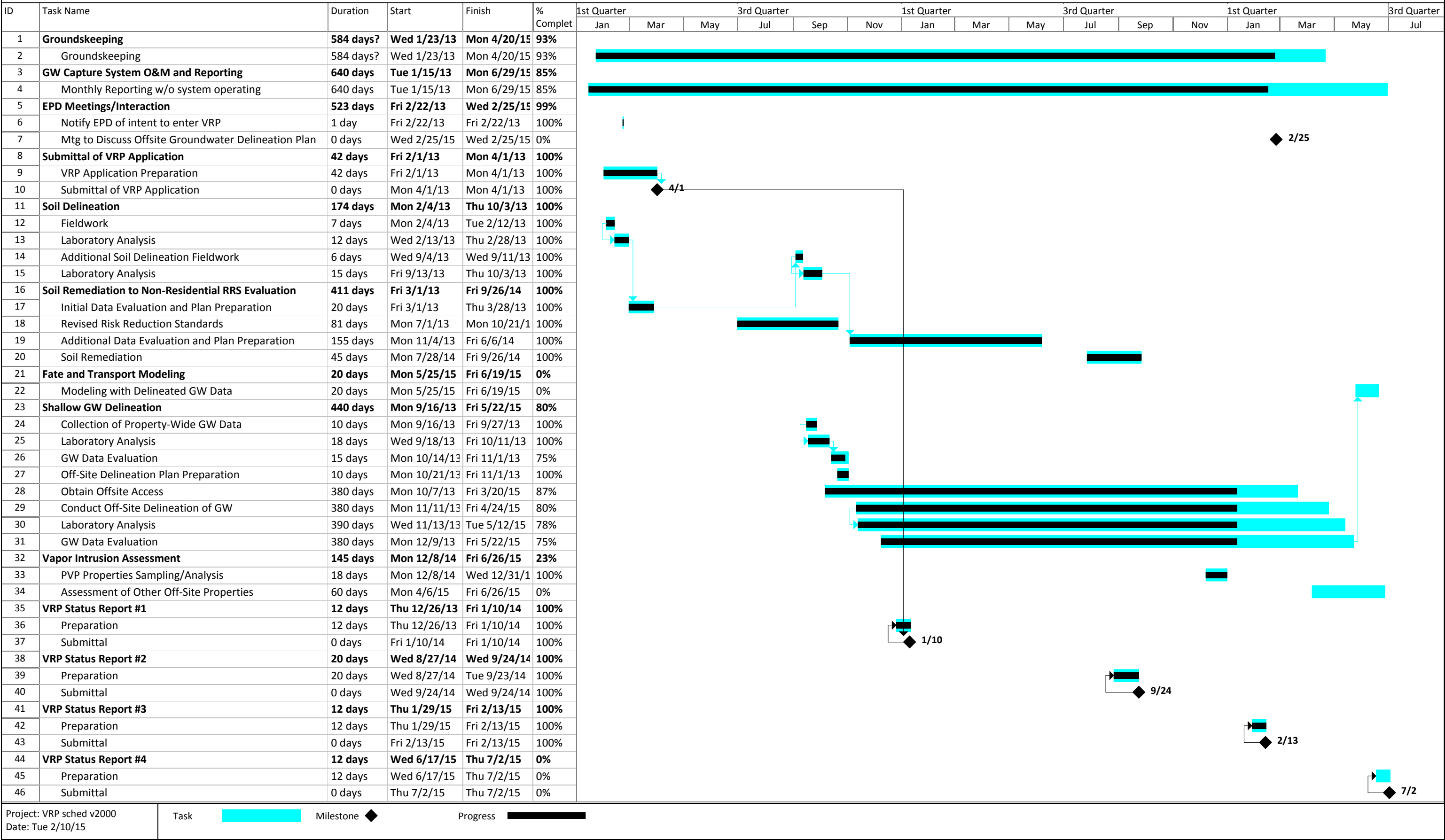


Date: 1/12/2015

FIGURE 6
SOIL GAS SAMPLING - PVP PROPERTIES
FORMER OXFORD CHEMICAL VRP SITE
5001 PEACHTREE BOULEVARD
CHAMBLEE, GEORGIA

rathon-viresults

Figure 7
Estimated VRP Schedule
Semiannual Status Report - February 13, 2015



APPENDIX A – BORING, MONITORING WELL CONSTRUCTION LOGS



Soil Boring Log

Boring ID: MW-27

Project: Rathon
Project No: 226278.00
Location: Chamblee Ga
Driller: Geo Lab
DTW: 15' Final Depth: 20' (24'well)

Elevation: _____
Date started: 10/6/14
Date Completed: 10/6/14
Field Oversight: Diprima / King

Depth (feet bgs)	Soil Classification	% Recovery	Sample No.	Remarks
-----0 --- --- --- --- -----5	Grass Backfill w/asphalt and stone ----- Reddish Brn clayey SILT	55%		
-----5 --- --- --- --- -----10	Relect RX structure 9' Striations - SILT saprolite	90%		
-----10 --- --- --- --- -----15 ▽	Becoming Tan + Lt.Grey w/thin black minerals striations Moist @ 14' Saturated @ 15'	90%		
-----15 ▽ --- --- --- --- -----20		100%		
-----20 --- --- --- --- -----25	Boring Terminated @ 20' Set 15'screen 9'-24'			
-----25 --- --- --- --- -----30				
-----30 --- --- --- --- -----35				
-----35 --- --- --- --- -----40				





Soil Boring Log

Boring ID: MW-28

Project: Rathon
Project No: 226278.00
Location: Chamblee Ga
Driller: Geo Lab
DTW: 13'

Elevation: _____
Date started: 10/6/14
Date Completed: 10/6/14
Field Oversight: Diprima / King

Final Depth: 20' (24'well)

Depth (feet bgs)	Soil Classification	% Recovery	Sample No.	Remarks
-----0 --- --- --- --- -----5 --- --- -----10 --- --- ▽	Grass Backfill Reddish Brn sandy SILT	30%		
-----5 --- --- -----10 --- --- ▽		70%		
-----10 --- --- -----15 --- --- -----20 --- --- -----25 --- --- -----30 --- --- -----35 --- --- -----40	Tan SILT w/relict Rx structure striations Moist @ 12' Saturated @ 13' Tan to Lt. Gray w/thin black mineral striations	100%		
		100%		
	Boring Terminated @ 20' Set 15'screen 9'-24'			



Soil Boring Log

Boring ID: MW-29

Project: Rathon
Project No: 226278.00
Location: Chamblee Ga
Driller: Geo Lab
DTW: 13'

Elevation: _____
Date started: 10/7/14
Date Completed: 10/7/14
Field Oversight: Diprima / King

Final Depth: 20' (24'well)

Depth (feet bgs)	Soil Classification	% Recovery	Sample No.	Remarks
-----0 --- --- --- --- -----5 --- --- -----10 --- --- ▽	Grass Backfill Reddish Brn sandy SILT	80%		
-----5 --- --- -----10 --- --- ▽		80%		
-----10 --- --- -----15 --- --- -----20 --- --- -----25 --- --- -----30 --- --- -----35 --- --- -----40	Tan Red SILT w/relict Rx structure striations Moist @ 12' Saturated @ 13'	90%		
-----15 --- --- -----20 --- --- -----25 --- --- -----30 --- --- -----35 --- --- -----40	Tan White SILT w/relict Rx structure and thin black mineral striations	90%		
-----20 --- --- -----25 --- --- -----30 --- --- -----35 --- --- -----40	Boring Terminated @ 20' Set 15'screen 9'-24'			





Soil Boring Log

Boring ID: MW-30

Project: Rathon
 Project No: 226278.00
 Location: Chamblee Ga
 Driller: Geo Lab
 DTW: 13'

Elevation: _____
 Date started: 10/7/14
 Date Completed: 10/7/14
 Field Oversight: Diprima / King

Final Depth: 20' (24'well)

Depth (feet bgs)	Soil Classification	% Recovery	Sample No.	Remarks
-----0 --- --- --- --- -----5 --- --- --- -----10 --- --- ▽ -----15 --- --- --- -----20 --- --- --- -----25 --- --- --- -----30 --- --- --- -----35 --- --- --- -----40	Fill topsoil grass rock and gravel Red Tan marbeled looking SILT fine firm moist ----- Tan Red SILT w/relict Rx structure and Black mineral striations Moist @ 12' Saturated @ 13' Tan Red SILT w/relict Rx structure and thin black mineral striations Boring Terminated @ 20' Set 15'screen 9'-24'	70% 100% 100% 100%		





Soil Boring Log

Boring ID: MW-31

Project: Rathon
Project No: 226278.00
Location: Chamblee Ga
Driller: Geo Lab
DTW: 13'

Elevation: _____
Date started: 10/7/14
Date Completed: 10/7/14
Field Oversight: Diprima / King

Final Depth: 20' (24'well)

Depth (feet bgs)	Soil Classification	% Recovery	Sample No.	Remarks
-----0 --- --- --- --- -----5	Fill topsoil grass rock and gravel Red Brown Clayey SILT dry firm	50%		
-----5 --- --- --- --- -----10	Red Tan SILT fine moist	50%		
-----10 --- --- --- --- -----15	Tan Red SILT w/relict Rx structure and Black mineral striations moist @ 12' Saturated @ 13'	100%		
-----15 --- --- --- --- -----20	Red Tan SILT w/relict Rx structure and thin black mineral striations	100%		
-----20 --- --- --- --- -----25	Boring Terminated @ 20' Set 15'screen 9'-24'			
-----25 --- --- --- --- -----30				
-----30 --- --- --- --- -----35				
-----35 --- --- --- --- -----40				



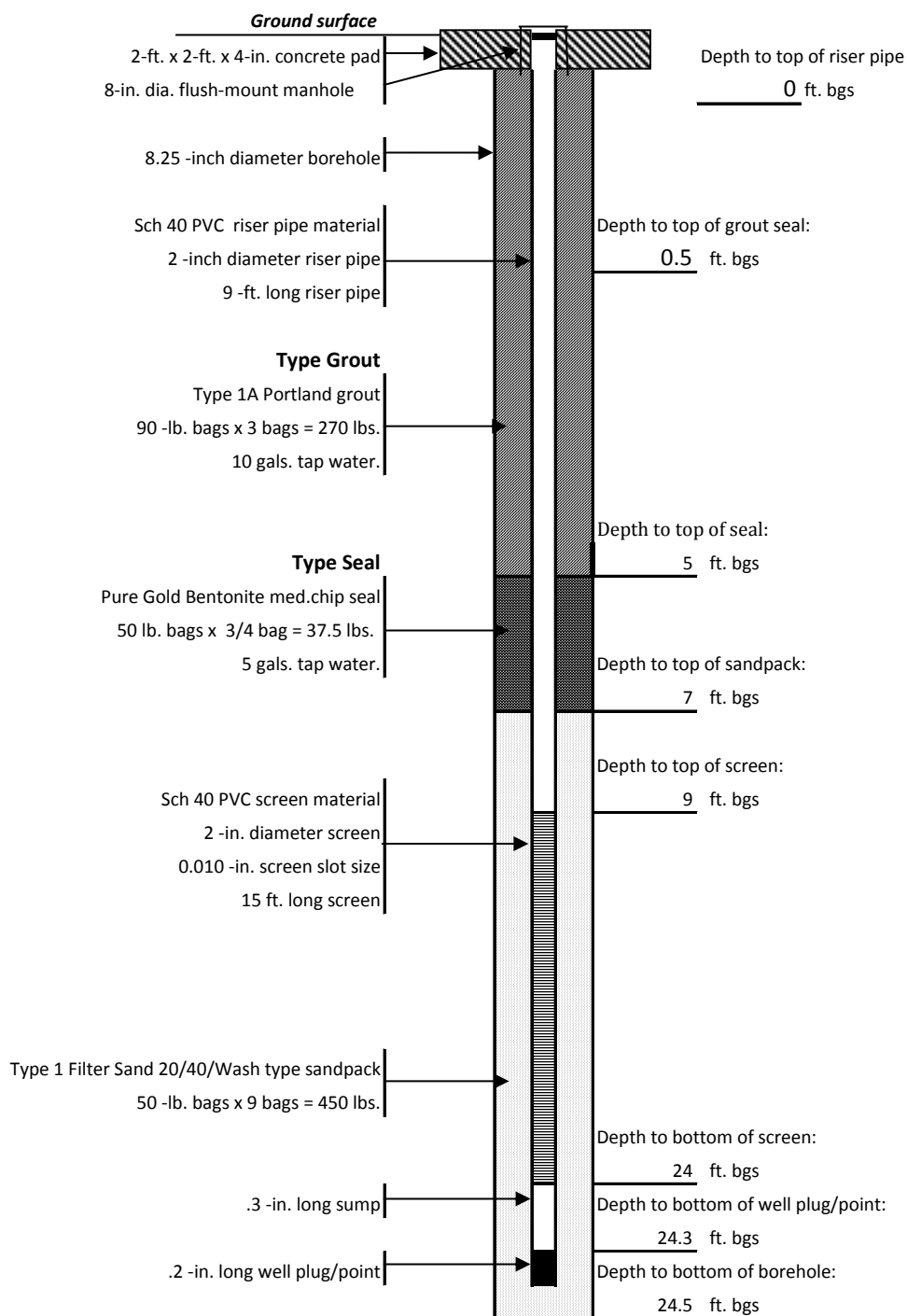


Monitor Well Log - Flush Mount

	Constr. Start	Constr. Finish
Time	12:00	14:30
Date	10/6/14	10/6/14

Well ID:	MW-27
Project No:	226278.00
Geol./Eng:	LJD
Driller:	Geo Lab

Temp Well



NOT TO SCALE

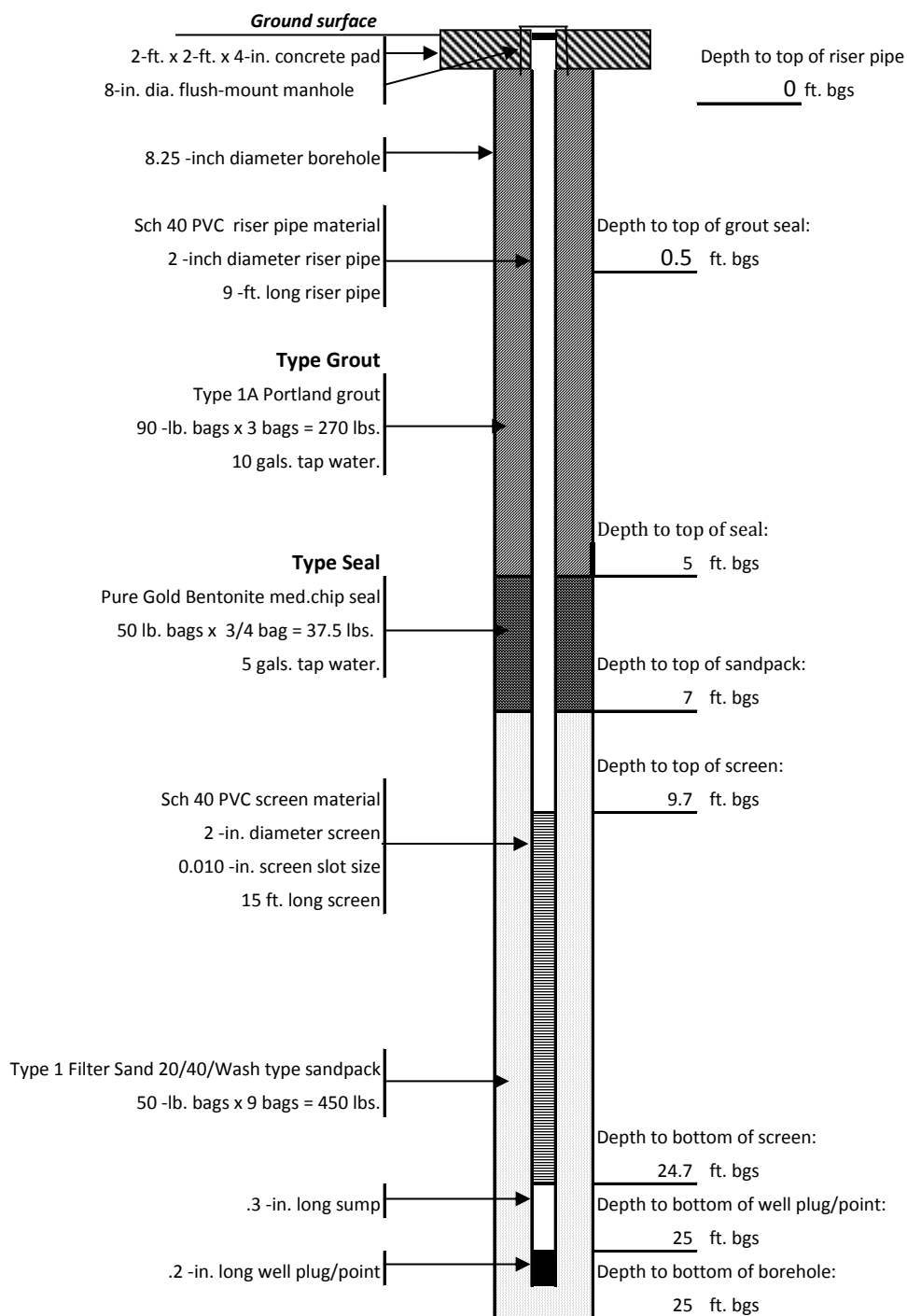


Monitor Well Log - Flush Mount

	Constr. Start	Constr. Finish
Time	14:30	16:00
Date	10/6/14	10/6/14

Well ID:	MW-28
Project No:	226278.00
Geol./Eng:	LJD
Driller:	Geo Lab

Temp Well



NOT TO SCALE

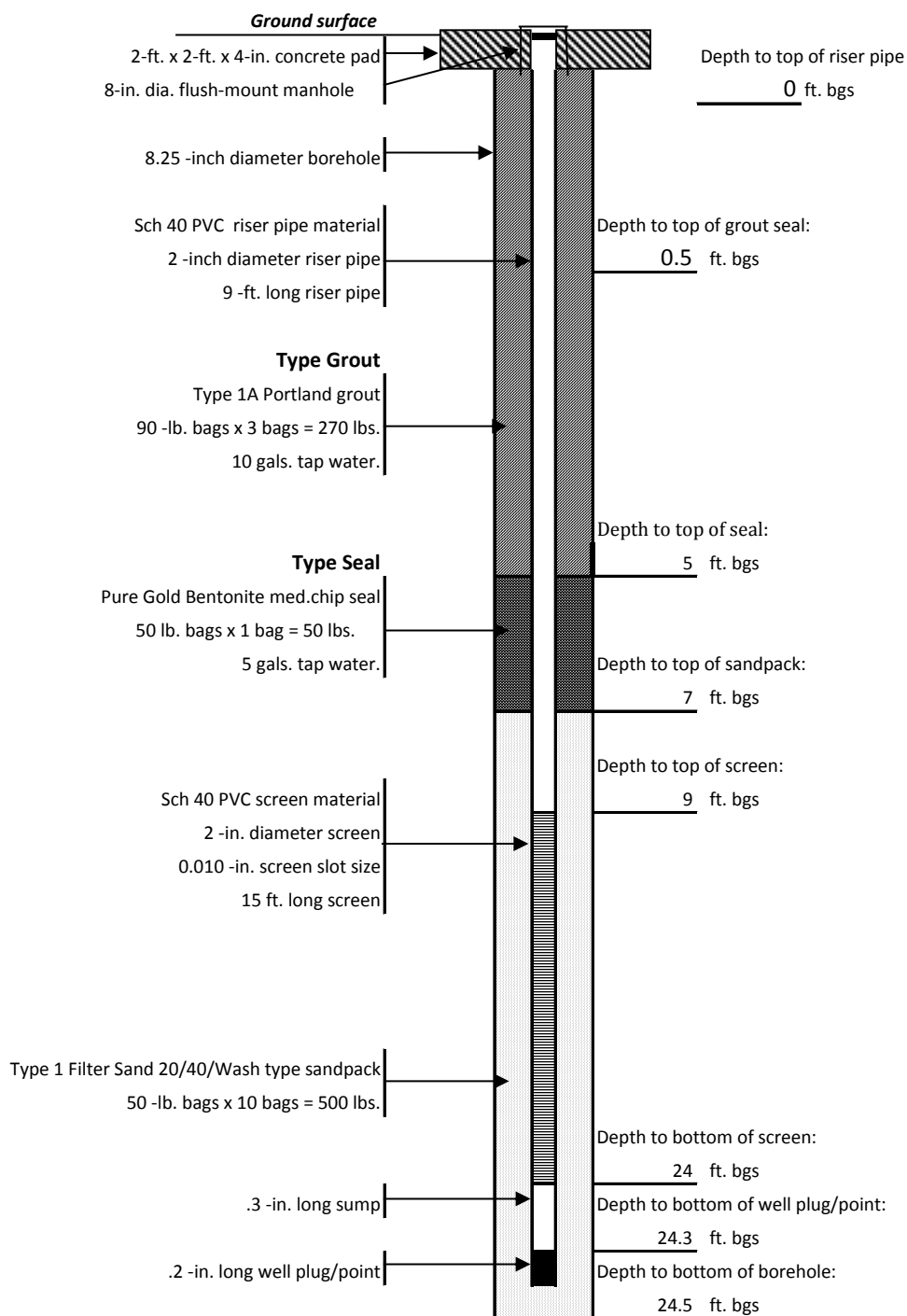


Monitor Well Log - Flush Mount

	Constr. Start	Constr. Finish
Time	10:35	12:10
Date	10/7/14	10/7/14

Well ID:	MW-29
Project No:	226278.00
Geol./Eng:	JDK
Driller:	Geo Lab

Temp Well



NOT TO SCALE

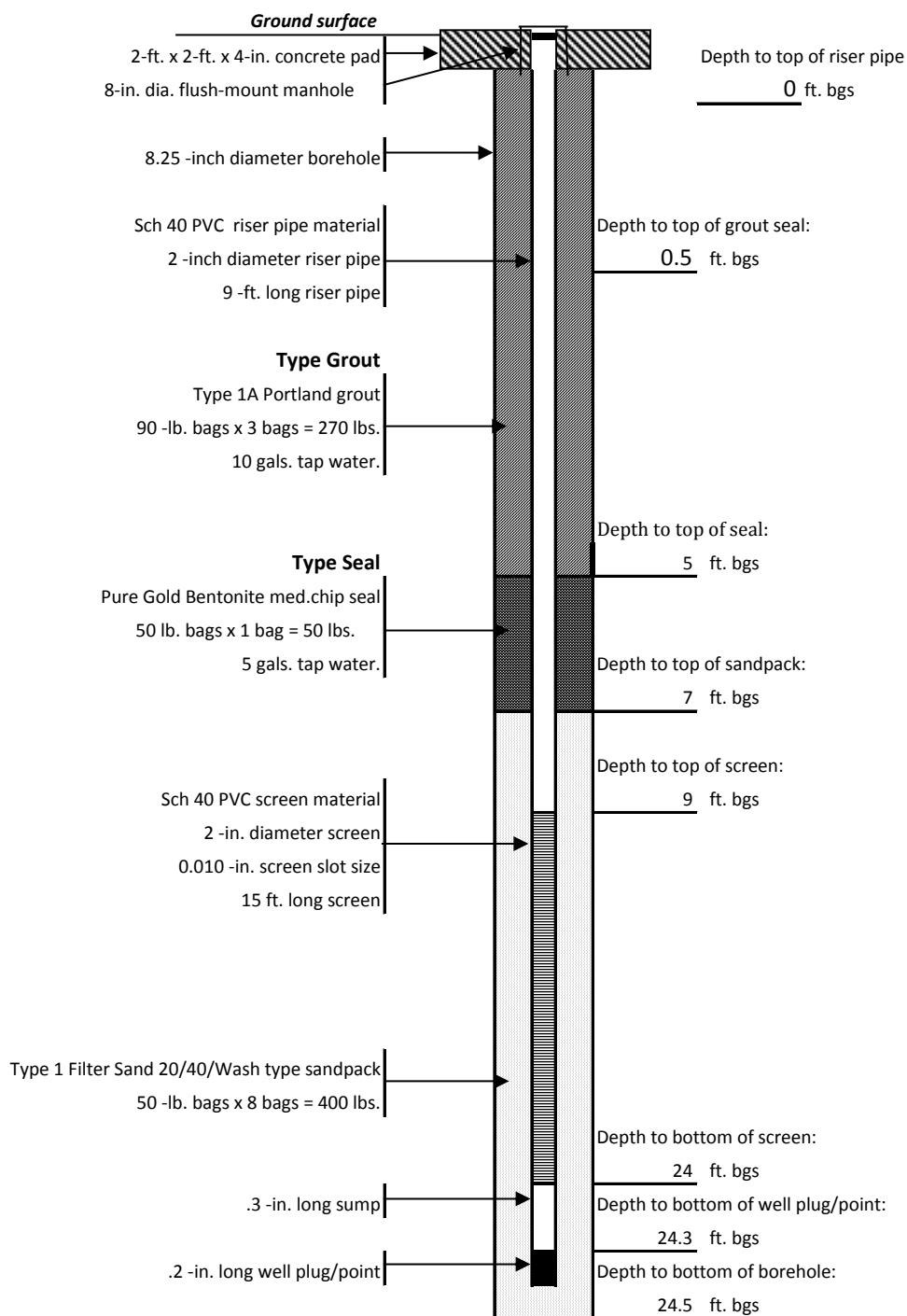


Monitor Well Log - Flush Mount

	Constr. Start	Constr. Finish
Time	12:35	17:00
Date	10/7/14	10/7/14

Well ID:	MW-30
Project No:	226278.00
Geol./Eng:	JDK
Driller:	Geo Lab

Temp Well



NOT TO SCALE

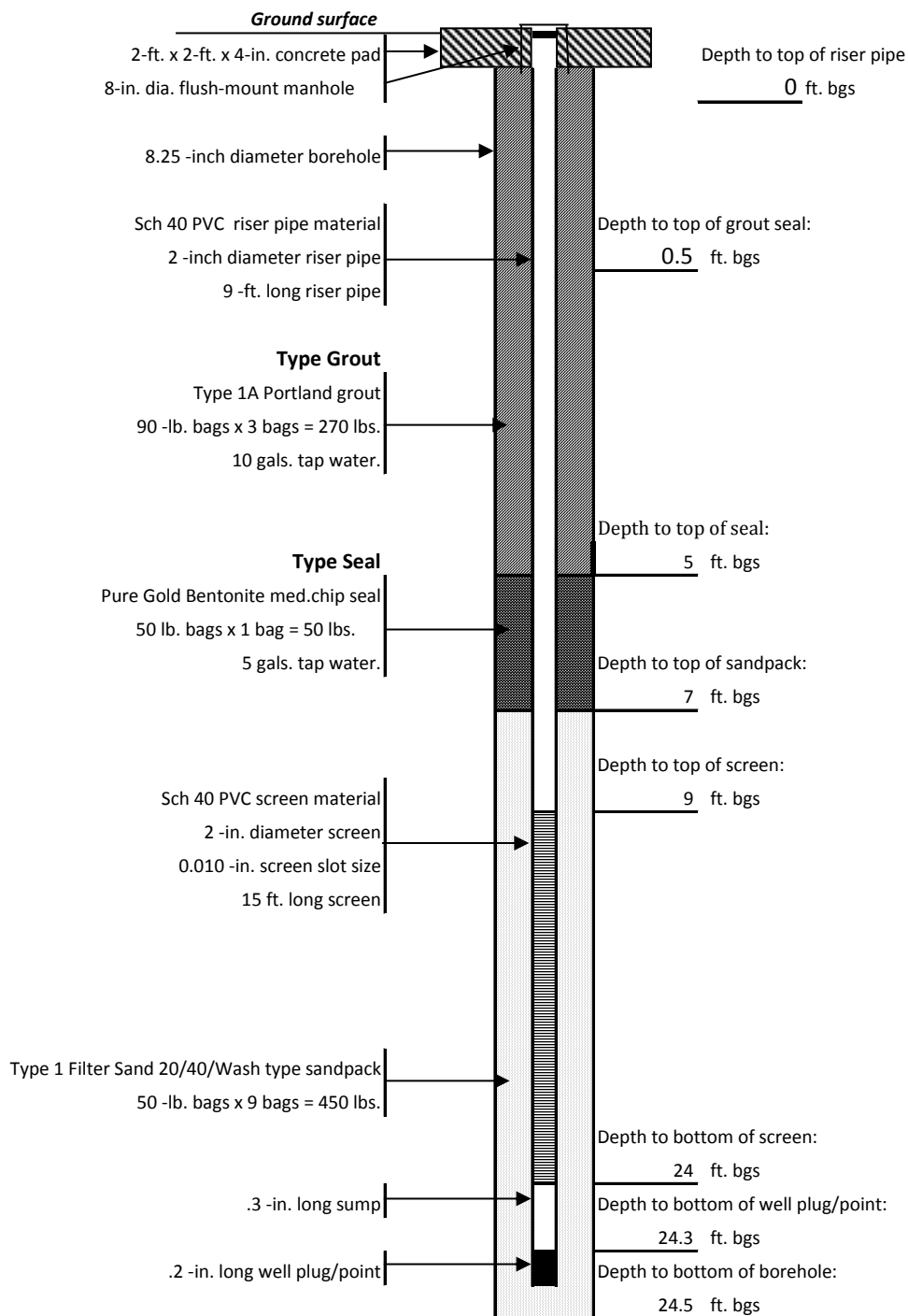


Monitor Well Log - Flush Mount

	Constr. Start	Constr. Finish
Time	7:55	9:55
Date	10/7/14	10/7/14

Well ID:	MW-31
Project No:	226278.00
Geol./Eng:	JDK
Driller:	Geo Lab

Temp Well



NOT TO SCALE

APPENDIX B – GROUNDWATER SAMPLING LOGS

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-7	
Well Diameter:	4	(inches)
Total Depth (TD):	23.68	(ft)
Depth to Groundwater (GW):	11.05	(ft)
Water Column Height (CH):	11.05	(ft) = TD - GW
Well Volume:	16.46	(gals)
Total Liters Purged:	3.00	(Lt)

Date:	10-10-2014
Measuring Pt:	North Side
Personnel:	JDK
Weather:	Clear cool
Screen Depth Interval:	13.68' - 23.68' (ft)
Pump Intake Depth:	8.68 (ft)
Tubing Type:	Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 9:50

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

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**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-9	
Well Diameter:	4	(inches)
Total Depth (TD):	15.59	(ft)
Depth to Groundwater (GW):	11.38	(ft)
Water Column Height (CH):	4.21	(ft) = TD - GW
Well Volume:	2.75	(gals)
Total Liters Purged:	2.50	(Lt)

Date:	10-10-2014
Measuring Pt:	North Side
Personnel:	JDK
Weather:	Clear cool
Screen Depth Interval:	18.69' - 28.69' (ft)
Pump Intake Depth:	13.69 (ft)
Tubing Type:	Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 10:40

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-11	
Well Diameter:	4	(inches)
Total Depth (TD):	28.69	(ft)
Depth to Groundwater (GW):	12.1	(ft)
Water Column Height (CH):	16.59	(ft) = TD - GW
Well Volume:	10.83	(gals)
Total Liters Purged:	3.75	(Lt)

Date:	10-10-2014
Measuring Pt:	North Side
Personnel:	JDK
Weather:	Clear cool
Screen Depth Interval:	18.69' - 28.69' (ft)
Pump Intake Depth:	13.69 (ft)
Tubing Type:	Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 10:40

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-17	
Well Diameter:	2	(inches)
Total Depth (TD):	22.31	(ft)
Depth to Groundwater (GW):	10.17	(ft)
Water Column Height (CH):	12.14	(ft) = TD - GW
Well Volume:	1.98	(gals)
Total Liters Purged:	2.50	(Lt)

Date:	10/17/2014	
Measuring Pt:	North Side	
Personnel:	JDK	
Weather:	Clear Warm	
Screen Depth Interval:	12.3'-22.3'	(ft)
Pump Intake Depth:	17.3'	(ft)
Tubing Type:	Teflon	

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, InSitu smarTroll MP water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 11:20

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-18	
Well Diameter:	2	(inches)
Total Depth (TD):	24.40	(ft)
Depth to Groundwater (GW):	11.61	(ft)
Water Column Height (CH):	12.79	(ft) = TD - GW
Well Volume:	2.08	(gals)
Total Liters Purged:	2.50	(Lt)

Date:	10/17/2014	
Measuring Pt:	North Side	
Personnel:	JDK	
Weather:	Clear Cold	
Screen Depth Interval:	15'-25'	(ft)
Pump Intake Depth:	20	(ft)
Tubing Type:	Teflon	

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, InSitu smarTroll MP water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 8:10

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

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**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #: 226278.00

Facility Name: Rathon

Facility Location: Chamblee Ga

Well ID:	MW-19	
Well Diameter:	2	(inches)
Total Depth (TD):	18.95	(ft)
Depth to Groundwater (GW):	9.55	(ft)
Water Column Height (CH):	9.40	(ft) = TD - GW
Well Volume:	1.53	(gals)
Total Liters Purged:	4.50	(Lt)

Date: 10/16/2014

Measuring Pt: North Side

Personnel: JDK

Weather: P.Cloudy Warm

Screen Depth Interval: 9'-19' (ft)

Pump Intake Depth: 14 (ft)

Tubing Type: Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 11:20

Preservative

Analysis/Method

Field Filter Y/N

Filter size

MS/MSD

Dup ID

2-40 mL VOA

HCL

VOC

n/a

n/a

n/a

n/a

2-1Lt Amber

Neat

SVOC

n/a

n/a

n/a

n/a

Note sample time, parameters, duplicates, field blanks, etc.

LOW FLOW GROUNDWATER MONITORING WELL SAMPLING FORM

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2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095

Project #: 226278.00
Facility Name: Rathon
Facility Location: Chamblee Ga

Well ID: MW-20 Date: 10/16/2014
Well Diameter: 2 (inches) Measuring Pt: North Side
Total Depth (TD): 14.80 (ft) Personnel: JDK
Depth to Groundwater (GW): 7.2 (ft) Weather: P.Cloudy Warm
Water Column Height (CH): 7.60 (ft) = TD - GW Screen Depth Interval: 5'-15' (ft)
Well Volume: 1.24 (gals) Pump Intake Depth: 4 (ft)
Total Liters Purged: 4.50 (Lt) Tubing Type: Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

Parameter Monitoring Results

Time	Vol. Purged (units: mL/min)	D.T.W. (feet)	Temp. (°C)	Sp. Cond (mS/cm)	D.O. (mg/l)	pH (su)	Orp (mV)	Turb. (NTUs)	Clarity /Color
Instrument Accuracy			+/- 3%	+/- 3%	+/- 10%	+/- 0.1	+/- 10mV	+/- 10%	Stabilization Criteria
11:51	150	6.92	20.47	0.609	19.1	6.19	38	61.9	CL
11:56	150	6.95	20.94	0.616	12.2	6.18	40	39.3	SC
12:01	150	7	21	0.617	9.5	6.18	42.3	14.6	AC
12:06	150	7.01	21.32	0.615	6.5	6.19	47.8	8.96	C
12:11	150	7.02	21.43	0.608	5	6.19	49	4.81	C
12:16	150	7.02	21.4	0.608	5.2	6.18	52	4	C
12:21	150	7.02	21.32	0.61	5	6.19	54	3.99	C

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 12:25

Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a
2-1Lt Amber	Neat	SVOC	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-21	
Well Diameter:	2	(inches)
Total Depth (TD):	19.20	(ft)
Depth to Groundwater (GW):	11.6	(ft)
Water Column Height (CH):	7.60	(ft) = TD - GW
Well Volume:	1.24	(gals)
Total Liters Purged:	3.15	(Lt)

Date:	10/16/2014	
Measuring Pt:	North Side	
Personnel:	JDK	
Weather:	P.Cloudy Cool	
Screen Depth Interval:	9'-19'	(ft)
Pump Intake Depth:	13	(ft)
Tubing Type:	Teflon	

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 13:23

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a
2-1Lt Amber	Neat	SVOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-25	
Well Diameter:	2	(inches)
Total Depth (TD):	19.50	(ft)
Depth to Groundwater (GW):	11.4	(ft)
Water Column Height (CH):	8.10	(ft) = TD - GW
Well Volume:	1.32	(gals)
Total Liters Purged:	3.75	(Lt)

Date:	10/17/2014	
Measuring Pt:	North Side	
Personnel:	JDK	
Weather:	Clear Warm	
Screen Depth Interval:	10'-20'	(ft)
Pump Intake Depth:	15'	(ft)
Tubing Type:	Teflon	

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, InSitu smarTroll MP water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 10:20

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #: 226278.00

Facility Name: Rathon

Facility Location: Chamblee Ga

Well ID:	MW-26	
Well Diameter:	2	(inches)
Total Depth (TD):	19.40	(ft)
Depth to Groundwater (GW):	11.1	(ft)
Water Column Height (CH):	8.30	(ft) = TD - GW
Well Volume:	1.35	(gals)
Total Liters Purged:	2.50	(Lt)

Date: 10/17/2014

Measuring Pt: North Side

Personnel: JDK

Weather: Clear Cold

Screen Depth Interval: 10'-20' (ft)

Pump Intake Depth: 15' (ft)

Tubing Type: Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, InSitu smarTroll MP water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 8:55

Preservative

Analysis/Method

Field Filter Y/N

Filter size

MS/MSD

Dup ID

2-40 mL VOA

HCL

VOC

n/a

n/a

n/a

n/a

2-1Lt Amber

Near

SVOC

n/a

n/a

n/a

n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-27	
Well Diameter:	2	(inches)
Total Depth (TD):	24.00	(ft)
Depth to Groundwater (GW):	16.37	(ft)
Water Column Height (CH):	7.63	(ft) = TD - GW
Well Volume:	1.24	(gals)
Total Liters Purged:	3.13	(Lt)

Date:	10-9-2014
Measuring Pt:	North Side
Personnel:	JDK
Weather:	Clear Warm
Screen Depth Interval:	9-24 (ft)
Pump Intake Depth:	16.5 (ft)
Tubing Type:	Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

Parameter Monitoring Results

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 11:20

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-28	
Well Diameter:	2	(inches)
Total Depth (TD):	23.75	(ft)
Depth to Groundwater (GW):	12.55	(ft)
Water Column Height (CH):	11.20	(ft) = TD - GW
Well Volume:	1.83	(gals)
Total Liters Purged:	3.75	(Lt)

Date:	10-9-2014
Measuring Pt:	North Side
Personnel:	JDK
Weather:	Clear Warm
Screen Depth Interval:	8.75 - 23.75 (ft)
Pump Intake Depth:	16 (ft)
Tubing Type:	Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 12:30

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	Dup 1
2-1 Lt Amber	Neat	SVOC	n/a	n/a	n/a	Dup 1

Note sample time, parameters, duplicates, field blanks, etc.

LOW FLOW GROUNDWATER MONITORING WELL SAMPLING FORM

Page 1 of 1



2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095

Project #: 226278.00
Facility Name: Rathon
Facility Location: Chamblee Ga

Well ID: MW-29 Date: 10-9-2014
Well Diameter: 2 (inches) Measuring Pt: North Side
Total Depth (TD): 23.75 (ft) Personnel: JDK
Depth to Groundwater (GW): 11.65 (ft) Weather: Clear Warm
Water Column Height (CH): 12.10 (ft) = TD - GW Screen Depth Interval: 8.75' - 23.75' (ft)
Well Volume: 1.97 (gals) Pump Intake Depth: 16 (ft)
Total Liters Purged: 6.00 (Lt) Tubing Type: Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

Parameter Monitoring Results

Time	Vol. Purged (units: mL/min)	D.T.W. (feet)	Temp. (°C)	Sp. Cond (mS/cm)	D.O. (mg/l)	pH (su)	Orp (mV)	Turb. (NTUs)	Clarity /Color
Instrument Accuracy			+/- 3%	+/- 3%	+/- 10%	+/- 0.1	+/- 10mV	+/- 10%	Stabilization Criteria
13:58	150	11.82	23.08	0.171	59.3	5.37	150	12	c
14:03	150	11.9	23.1	0.166	74	5.35	146	10	c
14:08	150	11.92	22.84	0.168	74	5.37	145	9	c
14:13	150	11.95	22.99	0.173	73	5.42	139	8	c
14:18	150	11.97	22.98	0.179	72	5.46	140	8	c
14:23	150	11.98	23.08	0.181	72	5.49	149	8	c
14:28	150	11.98	23.08	0.182	70	5.5	146	7	c
14:33	150	11.98	22.99	0.185	70	5.52	140	6	c
14:38	150	11.99	22.91	0.185	69	5.52	146	6	c

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 14:40

Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a
2-1 Lt Amber	Neat	SVOC	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-30	
Well Diameter:	2	(inches)
Total Depth (TD):	23.85	(ft)
Depth to Groundwater (GW):	12.78	(ft)
Water Column Height (CH):	11.07	(ft) = TD - GW
Well Volume:	1.80	(gals)
Total Liters Purged:	2.50	(Lt)

Date:	10-10-2014	
Measuring Pt:	North Side	
Personnel:	JDK	
Weather:	Clear cool	
Screen Depth Interval:	9'-24'	(ft)
Pump Intake Depth:	16.5	(ft)
Tubing Type:	Teflon	

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 8:04

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a
2-1 Lt Amber	Neat	SVOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #:	226278.00
Facility Name:	Rathon
Facility Location:	Chamblee Ga

Well ID:	MW-31	
Well Diameter:	2	(inches)
Total Depth (TD):	23.70	(ft)
Depth to Groundwater (GW):	15.11	(ft)
Water Column Height (CH):	8.59	(ft) = TD - GW
Well Volume:	1.40	(gals)
Total Liters Purged:	3.00	(Lt)

Date:	10-10-2014	
Measuring Pt:	North Side	
Personnel:	JDK	
Weather:	Clear cool	
Screen Depth Interval:	9'-24'	(ft)
Pump Intake Depth:	19.7	(ft)
Tubing Type:	Teflon	

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 7:05

	Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a	n/a
2-1 Lt Amber	Neat	SVOC	n/a	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

LOW FLOW GROUNDWATER MONITORING WELL SAMPLING FORM

Page 1 of 1



2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095

Project #: 226278.00
Facility Name: Rathon
Facility Location: Chamblee Ga

Well ID: MW-TX-S Date: 10/16/2014
Well Diameter: 2 (inches) Measuring Pt: North Side
Total Depth (TD): 15.10 (ft) Personnel: JDK
Depth to Groundwater (GW): 8.84 (ft) Weather: P.Cloudy Cool
Water Column Height (CH): 6.26 (ft) = TD - GW Screen Depth Interval: 5'-15' (ft)
Well Volume: 1.03 (gals) Pump Intake Depth: 11.9' (ft)
Total Liters Purged: 5.25 (Lt) Tubing Type: Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

Parameter Monitoring Results

Time	Vol. Purged (units: mL/min)	D.T.W. (feet)	Temp. (°C)	Sp. Cond (mS/cm)	D.O. (mg/l)	pH (su)	Orp (mV)	Turb. (NTUs)	Clarity /Color
Instrument Accuracy			+/- 3%	+/- 3%	+/- 10%	+/- 0.1	+/- 10mV	+/- 10%	Stabilization Criteria
8:32	150	8.83	21.2	0.353	41.1	5.83	0	7.1	c
8:37	150	8.85	21.1	0.328	23.9	5.89	0	7.12	c
9:42	150	8.84	21.17	0.339	22.7	5.89	47	6.35	c
8:47	150	8.85	21.51	0.349	34.6	5.86	53	6	c
8:52	150	8.85	21.66	0.222	61.8	5.93	60	7	c
8:57	150	8.86	21.6	0.233	58.1	5.94	59	6	c
9:02	150	8.87	21.59	0.236	56.5	5.94	60	3	c
9:07	150	8.86	21.58	0.23	56.1	5.94	59	2	c

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 9:10

Preservative	Analysis/Method	Field Filter Y/N	Filter size	MS/MSD	Dup ID
2-40 mL VOA	HCL	VOC	n/a	n/a	n/a
2-1Lt Amber	Neat	SVOC	n/a	n/a	n/a

Note sample time, parameters, duplicates, field blanks, etc.

Page 1 of 1



**2055 Sugarloaf Circle, Suite 175
Duluth, GA 30097
Ph: 770.622.6766
F: 770.396.0095**

Project #: 226278.00

Facility Name: Rathon

Facility Location: Chamblee Ga

Well ID:	MW-TX-W	
Well Diameter:	2	(inches)
Total Depth (TD):	14.10	(ft)
Depth to Groundwater (GW):	10.1	(ft)
Water Column Height (CH):	4.00	(ft) = TD - GW
Well Volume:	0.65	(gals)
Total Liters Purged:	2.50	(Lt)

Date: 10/16/2014

Measuring Pt: North Side

Personnel: JDK

Weather: P.Cloudy Cool

Screen Depth Interval: 4'-14' (ft)

Pump Intake Depth: 12' (ft)

Tubing Type: Teflon

Well Volume Factors (gallons/foot of water in well): 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653)

[illegible]

Clarity: VC = very cloudy, CL = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

Comments:

Low flow sample used a Geo pump, YSI 556 water meter, La Motte 2020WE turbidity meter, and a Heron Dipper -T water level meter.

Note: Sampling Method, Sample Interval, Recharge Conditions, Color, Odor, Sediment Content, etc.

Sample Time: 10:12

Preservative

Analysis/Method

Field Filter Y/N

Filter size

MS/MSD

Dup ID

2-40 mL VOA

HCL

VOC

n/a

n/a

n/a

n/a

2-1Lt Amber

Near

SVOC

n/a

n/a

n/a

n/a

Note sample time, parameters, duplicates, field blanks, etc.

APPENDIX C – LABORATORY DATA REPORTS

- Groundwater Samples – October 2014
- PVP Sub-slab Soil Gas Samples



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 16, 2014

Len Diprima
Woodard & Curran
2055 Sugarloaf Circle, Suite 175
Duluth GA 30094

TEL: (770) 622-6766
FAX:

RE: Rathon

Dear Len Diprima:

Order No: 1410A46

Analytical Environmental Services, Inc. received 9 samples on 10/10/2014 12:53:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Chantelle Kanhai
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

AES

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1410446

Date: 10-10-14 Page 1 of 1

COMPANY: Woodard + Curran		ADDRESS: 2855 Sugarloaf Circle Suite 175 Duluth GA 30097		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers		
PHONE: 770-622-6164		FAX: 770 396 0095		PRESERVATION (See codes)																
SAMPLED BY: JDK		SIGNATURE: <i>Joe King</i>														REMARKS				
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)												REMARKS	No # of Containers
		DATE	TIME																	
1	MW-27	10-9-14	1120	Y		GW	X											2		
2	MW-28	10-9-14	1230	Y		GW	X	X										4		
3	MW-29	10-9-14	1440	Y		GW	X	X										4		
4	MW-31	10-10-14	0705	Y		GW	Y	Y										4		
5	MW-30	10-10-14	0804	Y		GW	Y	Y										4		
6	MW-7	10-10-14	0950	Y		GW	Y											2		
7	MW-11	10-10-14	1040	Y		GW	X											2		
8	MW-9	10-10-14	1205	Y		GW	X											2		
9	Dup-1	10-9-14		Y		GW	X	X										4		
10																				
11																				
12																				
13																				
14																				

RELINQUISHED BY 1: <i>Joe JDK</i>	DATE/TIME 10-10-14/1253	RECEIVED BY 2: <i>Calay Rees</i>	DATE/TIME 10/10/14 12:53	PROJECT INFORMATION		RECEIPT	
				PROJECT NAME: Rathen		Total # of Containers 26	
				PROJECT #: 226278.06		Turnaround Time Request	
				SITE ADDRESS: Chamblee GA		☒ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other	
				SEND REPORT TO: <i>Bryan Maurer / Len Jofima</i>		STATE PROGRAM (if any):	
				INVOICE TO: (IF DIFFERENT FROM ABOVE) <i>Joe King</i>		E-mail? Y / N: Fax? Y / N	
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		QUOTE #:		DATA PACKAGE: I II III IV	
		OUT / / VIA: IN / / VIA: CLIENT ☒ FedEx ☐ UPS ☐ MAIL ☐ COURIER ☐ GREYHOUND ☐ OTHER		PO#:			

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client
Page 2 of 23

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-001

Client Sample ID: MW-27
Collection Date: 10/9/2014 11:20:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,1-Dichloroethane	23	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,1-Dichloroethene	19	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 04:13	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 04:13	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 04:13	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 04:13	GK
cis-1,2-Dichloroethene	6.7	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 04:13	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Tetrachloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Trichloroethene	7.9	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/15/2014 04:13	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 04:13	GK
Surr: 4-Bromofluorobenzene	88.1	66.2-120		%REC	197614	1	10/15/2014 04:13	GK
Surr: Dibromofluoromethane	97.5	79.5-121		%REC	197614	1	10/15/2014 04:13	GK
Surr: Toluene-d8	96.6	77-117		%REC	197614	1	10/15/2014 04:13	GK

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-002

Client Sample ID: MW-28
Collection Date: 10/9/2014 12:30:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,1-Dichloroethane	26	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,1-Dichloroethene	28	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,2-Dichlorobenzene	7.1	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 04:42	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 04:42	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 04:42	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 04:42	GK
cis-1,2-Dichloroethene	440	50		ug/L	197614	10	10/16/2014 04:14	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 04:42	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Tetrachloroethene	55	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Trichloroethene	180	50		ug/L	197614	10	10/16/2014 04:14	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/15/2014 04:42	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 04:42	GK
Surr: 4-Bromofluorobenzene	88.4	66.2-120		%REC	197614	1	10/15/2014 04:42	GK
Surr: 4-Bromofluorobenzene	89	66.2-120		%REC	197614	10	10/16/2014 04:14	GK
Surr: Dibromofluoromethane	90	79.5-121		%REC	197614	10	10/16/2014 04:14	GK
Surr: Dibromofluoromethane	97.5	79.5-121		%REC	197614	1	10/15/2014 04:42	GK
Surr: Toluene-d8	97.8	77-117		%REC	197614	1	10/15/2014 04:42	GK
Surr: Toluene-d8	97.4	77-117		%REC	197614	10	10/16/2014 04:14	GK

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 16-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410A46-002

Client Sample ID: MW-28
 Collection Date: 10/9/2014 12:30:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197636	1	10/15/2014 19:51	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
2,4-Dichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
2,4-Dimethylphenol	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
2,4-Dinitrophenol	BRL	25		ug/L	197636	1	10/15/2014 19:51	YH
2-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
4-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Acenaphthene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Acenaphthylene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Anthracene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Benz(a)anthracene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Benzo(a)pyrene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Chrysene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Di-n-butyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Di-n-octyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Fluorene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Naphthalene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Pentachlorophenol	BRL	25		ug/L	197636	1	10/15/2014 19:51	YH
Phenanthrene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Phenol	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Pyrene	BRL	10		ug/L	197636	1	10/15/2014 19:51	YH
Surr: 2,4,6-Tribromophenol	93.7	51.5-124		%REC	197636	1	10/15/2014 19:51	YH
Surr: 2-Fluorobiphenyl	79.9	51.7-118		%REC	197636	1	10/15/2014 19:51	YH
Surr: 2-Fluorophenol	55.4	26-120		%REC	197636	1	10/15/2014 19:51	YH
Surr: 4-Terphenyl-d14	88.7	45.2-137		%REC	197636	1	10/15/2014 19:51	YH
Surr: Nitrobenzene-d5	82.6	42-120		%REC	197636	1	10/15/2014 19:51	YH
Surr: Phenol-d5	38	12.3-120		%REC	197636	1	10/15/2014 19:51	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-003

Client Sample ID: MW-29
Collection Date: 10/9/2014 2:40:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,1-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,1-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,2,4-Trichlorobenzene	95	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,2-Dichlorobenzene	230	50		ug/L	197614	10	10/16/2014 04:43	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,3-Dichlorobenzene	25	5.0		ug/L	197614	1	10/15/2014 08:03	GK
1,4-Dichlorobenzene	61	5.0		ug/L	197614	1	10/15/2014 08:03	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 08:03	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 08:03	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 08:03	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Chlorobenzene	110	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 08:03	GK
cis-1,2-Dichloroethene	46	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 08:03	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Tetrachloroethene	9.7	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Trichloroethene	22	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/15/2014 08:03	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 08:03	GK
Surr: 4-Bromofluorobenzene	91.7	66.2-120		%REC	197614	1	10/15/2014 08:03	GK
Surr: 4-Bromofluorobenzene	90.4	66.2-120		%REC	197614	10	10/16/2014 04:43	GK
Surr: Dibromofluoromethane	95.6	79.5-121		%REC	197614	10	10/16/2014 04:43	GK
Surr: Dibromofluoromethane	97	79.5-121		%REC	197614	1	10/15/2014 08:03	GK
Surr: Toluene-d8	97.4	77-117		%REC	197614	10	10/16/2014 04:43	GK
Surr: Toluene-d8	98.2	77-117		%REC	197614	1	10/15/2014 08:03	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 16-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410A46-003

Client Sample ID: MW-29
 Collection Date: 10/9/2014 2:40:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197636	1	10/15/2014 20:18	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
2,4-Dichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
2,4-Dimethylphenol	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
2,4-Dinitrophenol	BRL	25		ug/L	197636	1	10/15/2014 20:18	YH
2-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
4-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Acenaphthene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Acenaphthylene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Anthracene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Benz(a)anthracene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Benzo(a)pyrene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Chrysene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Di-n-butyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Di-n-octyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Fluorene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Naphthalene	19	10		ug/L	197636	1	10/15/2014 20:18	YH
Pentachlorophenol	BRL	25		ug/L	197636	1	10/15/2014 20:18	YH
Phenanthrene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Phenol	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Pyrene	BRL	10		ug/L	197636	1	10/15/2014 20:18	YH
Surr: 2,4,6-Tribromophenol	97.8	51.5-124		%REC	197636	1	10/15/2014 20:18	YH
Surr: 2-Fluorobiphenyl	85.8	51.7-118		%REC	197636	1	10/15/2014 20:18	YH
Surr: 2-Fluorophenol	57.9	26-120		%REC	197636	1	10/15/2014 20:18	YH
Surr: 4-Terphenyl-d14	94	45.2-137		%REC	197636	1	10/15/2014 20:18	YH
Surr: Nitrobenzene-d5	88.8	42-120		%REC	197636	1	10/15/2014 20:18	YH
Surr: Phenol-d5	39.1	12.3-120		%REC	197636	1	10/15/2014 20:18	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-004

Client Sample ID: MW-31
Collection Date: 10/10/2014 7:05:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,1-Dichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,1-Dichloroethene	7.1	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,2-Dichlorobenzene	47	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,3-Dichlorobenzene	5.3	5.0		ug/L	197614	1	10/16/2014 02:46	GK
1,4-Dichlorobenzene	12	5.0		ug/L	197614	1	10/16/2014 02:46	GK
2-Butanone	BRL	50		ug/L	197614	1	10/16/2014 02:46	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/16/2014 02:46	GK
Acetone	BRL	50		ug/L	197614	1	10/16/2014 02:46	GK
Benzene	120	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Chloroethane	BRL	10		ug/L	197614	1	10/16/2014 02:46	GK
cis-1,2-Dichloroethene	96	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Cyclohexane	18	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/16/2014 02:46	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Isopropylbenzene	9.4	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Styrene	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Tetrachloroethene	60	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Toluene	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Trichloroethene	350	100		ug/L	197614	20	10/15/2014 02:19	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/16/2014 02:46	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/16/2014 02:46	GK
Surr: 4-Bromofluorobenzene	92.3	66.2-120		%REC	197614	1	10/16/2014 02:46	GK
Surr: 4-Bromofluorobenzene	88.6	66.2-120		%REC	197614	20	10/15/2014 02:19	GK
Surr: Dibromofluoromethane	96.5	79.5-121		%REC	197614	1	10/16/2014 02:46	GK
Surr: Dibromofluoromethane	98.3	79.5-121		%REC	197614	20	10/15/2014 02:19	GK
Surr: Toluene-d8	98.3	77-117		%REC	197614	1	10/16/2014 02:46	GK
Surr: Toluene-d8	97.3	77-117		%REC	197614	20	10/15/2014 02:19	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 16-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410A46-004

Client Sample ID: MW-31
 Collection Date: 10/10/2014 7:05:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197636	1	10/15/2014 20:43	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
2,4-Dichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
2,4-Dimethylphenol	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
2,4-Dinitrophenol	BRL	25		ug/L	197636	1	10/15/2014 20:43	YH
2-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
4-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Acenaphthene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Acenaphthylene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Anthracene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Benz(a)anthracene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Benzo(a)pyrene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Chrysene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Di-n-butyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Di-n-octyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Fluorene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Naphthalene	22	10		ug/L	197636	1	10/15/2014 20:43	YH
Pentachlorophenol	BRL	25		ug/L	197636	1	10/15/2014 20:43	YH
Phenanthrene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Phenol	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Pyrene	BRL	10		ug/L	197636	1	10/15/2014 20:43	YH
Surr: 2,4,6-Tribromophenol	89.1	51.5-124		%REC	197636	1	10/15/2014 20:43	YH
Surr: 2-Fluorobiphenyl	75.7	51.7-118		%REC	197636	1	10/15/2014 20:43	YH
Surr: 2-Fluorophenol	50.3	26-120		%REC	197636	1	10/15/2014 20:43	YH
Surr: 4-Terphenyl-d14	87.2	45.2-137		%REC	197636	1	10/15/2014 20:43	YH
Surr: Nitrobenzene-d5	82.5	42-120		%REC	197636	1	10/15/2014 20:43	YH
Surr: Phenol-d5	34.9	12.3-120		%REC	197636	1	10/15/2014 20:43	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-005

Client Sample ID: MW-30
Collection Date: 10/10/2014 8:04:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,1-Dichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,1-Dichloroethene	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,2,4-Trichlorobenzene	310	100		ug/L	197614	20	10/15/2014 02:47	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,2-Dichlorobenzene	1000	100		ug/L	197614	20	10/15/2014 02:47	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,3-Dichlorobenzene	69	5.0		ug/L	197614	1	10/16/2014 03:15	GK
1,4-Dichlorobenzene	350	100		ug/L	197614	20	10/15/2014 02:47	GK
2-Butanone	BRL	50		ug/L	197614	1	10/16/2014 03:15	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/16/2014 03:15	GK
Acetone	BRL	50		ug/L	197614	1	10/16/2014 03:15	GK
Benzene	24	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Chlorobenzene	1000	100		ug/L	197614	20	10/15/2014 02:47	GK
Chloroethane	BRL	10		ug/L	197614	1	10/16/2014 03:15	GK
cis-1,2-Dichloroethene	82	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/16/2014 03:15	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Isopropylbenzene	5.8	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Styrene	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Tetrachloroethene	5.8	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Toluene	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Trichloroethene	11	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/16/2014 03:15	GK
Xylenes, Total	62	5.0		ug/L	197614	1	10/16/2014 03:15	GK
Surr: 4-Bromofluorobenzene	94.9	66.2-120		%REC	197614	1	10/16/2014 03:15	GK
Surr: 4-Bromofluorobenzene	91.4	66.2-120		%REC	197614	20	10/15/2014 02:47	GK
Surr: Dibromofluoromethane	97.8	79.5-121		%REC	197614	1	10/16/2014 03:15	GK
Surr: Dibromofluoromethane	96.4	79.5-121		%REC	197614	20	10/15/2014 02:47	GK
Surr: Toluene-d8	98.2	77-117		%REC	197614	1	10/16/2014 03:15	GK
Surr: Toluene-d8	97.3	77-117		%REC	197614	20	10/15/2014 02:47	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 16-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410A46-005

Client Sample ID: MW-30
 Collection Date: 10/10/2014 8:04:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197636	1	10/15/2014 21:10	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
2,4-Dichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
2,4-Dimethylphenol	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
2,4-Dinitrophenol	BRL	25		ug/L	197636	1	10/15/2014 21:10	YH
2-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
4-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Acenaphthene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Acenaphthylene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Anthracene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Benz(a)anthracene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Benzo(a)pyrene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Chrysene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Di-n-butyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Di-n-octyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Fluorene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Naphthalene	400	100		ug/L	197636	10	10/16/2014 14:53	YH
Pentachlorophenol	BRL	25		ug/L	197636	1	10/15/2014 21:10	YH
Phenanthrene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Phenol	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Pyrene	BRL	10		ug/L	197636	1	10/15/2014 21:10	YH
Surr: 2,4,6-Tribromophenol	95.8	51.5-124		%REC	197636	1	10/15/2014 21:10	YH
Surr: 2-Fluorobiphenyl	90.2	51.7-118		%REC	197636	1	10/15/2014 21:10	YH
Surr: 2-Fluorophenol	61	26-120		%REC	197636	1	10/15/2014 21:10	YH
Surr: 4-Terphenyl-d14	87.9	45.2-137		%REC	197636	1	10/15/2014 21:10	YH
Surr: Nitrobenzene-d5	90.8	42-120		%REC	197636	1	10/15/2014 21:10	YH
Surr: Phenol-d5	42.7	12.3-120		%REC	197636	1	10/15/2014 21:10	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-006

Client Sample ID: MW-7
Collection Date: 10/10/2014 9:50:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)			
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,1-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,1-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 05:11	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 05:11	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 05:11	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 05:11	GK
cis-1,2-Dichloroethene	23	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 05:11	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Tetrachloroethene	6.2	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Trichloroethene	22	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/15/2014 05:11	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 05:11	GK
Surr: 4-Bromofluorobenzene	87.9	66.2-120		%REC	197614	1	10/15/2014 05:11	GK
Surr: Dibromofluoromethane	98.5	79.5-121		%REC	197614	1	10/15/2014 05:11	GK
Surr: Toluene-d8	98.2	77-117		%REC	197614	1	10/15/2014 05:11	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-007

Client Sample ID: MW-11
Collection Date: 10/10/2014 10:40:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,1,1-Trichloroethane	26	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,1-Dichloroethane	15	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,1-Dichloroethene	31	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 05:40	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 05:40	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 05:40	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 05:40	GK
cis-1,2-Dichloroethene	400	100		ug/L	197614	20	10/16/2014 03:44	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 05:40	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Tetrachloroethene	1400	100		ug/L	197614	20	10/16/2014 03:44	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
trans-1,2-Dichloroethene	6.0	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Trichloroethene	150	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Vinyl chloride	2.4	2.0		ug/L	197614	1	10/15/2014 05:40	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 05:40	GK
Surr: 4-Bromofluorobenzene	88.3	66.2-120		%REC	197614	1	10/15/2014 05:40	GK
Surr: 4-Bromofluorobenzene	90.1	66.2-120		%REC	197614	20	10/16/2014 03:44	GK
Surr: Dibromofluoromethane	99.2	79.5-121		%REC	197614	1	10/15/2014 05:40	GK
Surr: Dibromofluoromethane	96.9	79.5-121		%REC	197614	20	10/16/2014 03:44	GK
Surr: Toluene-d8	97	77-117		%REC	197614	1	10/15/2014 05:40	GK
Surr: Toluene-d8	97.7	77-117		%REC	197614	20	10/16/2014 03:44	GK

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-008

Client Sample ID: MW-9
Collection Date: 10/10/2014 12:05:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,1-Dichloroethane	51	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,1-Dichloroethene	42	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,2,4-Trichlorobenzene	7.5	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
1,4-Dichlorobenzene	5.8	5.0		ug/L	197614	1	10/15/2014 06:08	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 06:08	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 06:08	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 06:08	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 06:08	GK
cis-1,2-Dichloroethene	170	50		ug/L	197614	10	10/16/2014 05:11	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 06:08	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Tetrachloroethene	160	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
trans-1,2-Dichloroethene	5.4	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Trichloroethene	71	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/15/2014 06:08	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 06:08	GK
Surr: 4-Bromofluorobenzene	87.1	66.2-120		%REC	197614	1	10/15/2014 06:08	GK
Surr: 4-Bromofluorobenzene	91.6	66.2-120		%REC	197614	10	10/16/2014 05:11	GK
Surr: Dibromofluoromethane	94.4	79.5-121		%REC	197614	10	10/16/2014 05:11	GK
Surr: Dibromofluoromethane	99.5	79.5-121		%REC	197614	1	10/15/2014 06:08	GK
Surr: Toluene-d8	98.7	77-117		%REC	197614	1	10/15/2014 06:08	GK
Surr: Toluene-d8	98.5	77-117		%REC	197614	10	10/16/2014 05:11	GK

Qualifiers:

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- BRL Below reporting limit
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 16-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410A46-009

Client Sample ID: DUP-1
Collection Date: 10/9/2014
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,1-Dichloroethane	33	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,1-Dichloroethene	30	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,2-Dichlorobenzene	7.0	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,2-Dichloroethane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,2-Dichloropropane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
2-Butanone	BRL	50		ug/L	197614	1	10/15/2014 07:34	GK
4-Methyl-2-pentanone	BRL	10		ug/L	197614	1	10/15/2014 07:34	GK
Acetone	BRL	50		ug/L	197614	1	10/15/2014 07:34	GK
Benzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Bromoform	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Carbon disulfide	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Chlorobenzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Chloroethane	BRL	10		ug/L	197614	1	10/15/2014 07:34	GK
cis-1,2-Dichloroethene	600	50		ug/L	197614	10	10/16/2014 05:40	GK
Cyclohexane	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Dichlorodifluoromethane	BRL	10		ug/L	197614	1	10/15/2014 07:34	GK
Ethylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Isopropylbenzene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Methylene chloride	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Styrene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Tetrachloroethene	110	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Toluene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Trichloroethene	200	50		ug/L	197614	10	10/16/2014 05:40	GK
Vinyl chloride	BRL	2.0		ug/L	197614	1	10/15/2014 07:34	GK
Xylenes, Total	BRL	5.0		ug/L	197614	1	10/15/2014 07:34	GK
Surr: 4-Bromofluorobenzene	88.7	66.2-120		%REC	197614	1	10/15/2014 07:34	GK
Surr: 4-Bromofluorobenzene	91.1	66.2-120		%REC	197614	10	10/16/2014 05:40	GK
Surr: Dibromofluoromethane	93.3	79.5-121		%REC	197614	10	10/16/2014 05:40	GK
Surr: Dibromofluoromethane	100	79.5-121		%REC	197614	1	10/15/2014 07:34	GK
Surr: Toluene-d8	97.3	77-117		%REC	197614	1	10/15/2014 07:34	GK
Surr: Toluene-d8	96.3	77-117		%REC	197614	10	10/16/2014 05:40	GK

Qualifiers:

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- BRL Below reporting limit
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- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 16-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410A46-009

Client Sample ID: DUP-1
 Collection Date: 10/9/2014
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197636	1	10/15/2014 21:37	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
2,4-Dichlorophenol	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
2,4-Dimethylphenol	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
2,4-Dinitrophenol	BRL	25		ug/L	197636	1	10/15/2014 21:37	YH
2-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
4-Methylphenol	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Acenaphthene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Acenaphthylene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Anthracene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Benz(a)anthracene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Benzo(a)pyrene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Chrysene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Di-n-butyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Di-n-octyl phthalate	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Fluoranthene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Fluorene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Naphthalene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Pentachlorophenol	BRL	25		ug/L	197636	1	10/15/2014 21:37	YH
Phenanthrene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Phenol	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Pyrene	BRL	10		ug/L	197636	1	10/15/2014 21:37	YH
Surr: 2,4,6-Tribromophenol	89.8	51.5-124		%REC	197636	1	10/15/2014 21:37	YH
Surr: 2-Fluorobiphenyl	83.1	51.7-118		%REC	197636	1	10/15/2014 21:37	YH
Surr: 2-Fluorophenol	63.8	26-120		%REC	197636	1	10/15/2014 21:37	YH
Surr: 4-Terphenyl-d14	85.5	45.2-137		%REC	197636	1	10/15/2014 21:37	YH
Surr: Nitrobenzene-d5	89	42-120		%REC	197636	1	10/15/2014 21:37	YH
Surr: Phenol-d5	43.1	12.3-120		%REC	197636	1	10/15/2014 21:37	YH

Qualifiers:

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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Woodard & Curran

Work Order Number 1410A46

Checklist completed by [Signature] 10/10/14
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 3-6°C Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Receipt_Checklist_Rev1.rtf

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410A46

ANALYTICAL QC SUMMARY REPORT

BatchID: 197614

Sample ID: MB-197614	Client ID:	Units: ug/L				Prep Date: 10/14/2014	Run No: 277779				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 197614				Analysis Date: 10/14/2014	Seq No: 5871759				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0
1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,3-Trichloropropane	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromoform	BRL	5.0
Carbon disulfide	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
cis-1,2-Dichloroethene	BRL	5.0
Cyclohexane	BRL	5.0
Dichlorodifluoromethane	BRL	10
Ethylbenzene	BRL	5.0
Isopropylbenzene	BRL	5.0

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410A46

ANALYTICAL QC SUMMARY REPORT

BatchID: 197614

Sample ID: MB-197614	Client ID:					Units: ug/L	Prep Date: 10/14/2014	Run No: 277779			
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 197614	Analysis Date: 10/14/2014	Seq No: 5871759			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	45.40	0	50.00		90.8	66.2	120				
Surr: Dibromofluoromethane	49.72	0	50.00		99.4	79.5	121				
Surr: Toluene-d8	48.58	0	50.00		97.2	77	117				

Sample ID: LCS-197614	Client ID:					Units: ug/L	Prep Date: 10/14/2014	Run No: 277779			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 197614	Analysis Date: 10/14/2014	Seq No: 5871758			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	49.61	5.0	50.00		99.2	63.1	140				
Benzene	46.68	5.0	50.00		93.4	74.2	129				
Chlorobenzene	45.16	5.0	50.00		90.3	70	129				
Toluene	46.06	5.0	50.00		92.1	74.2	129				
Trichloroethene	45.72	5.0	50.00		91.4	71.2	135				
Surr: 4-Bromofluorobenzene	44.88	0	50.00		89.8	66.2	120				
Surr: Dibromofluoromethane	50.18	0	50.00		100	79.5	121				
Surr: Toluene-d8	49.23	0	50.00		98.5	77	117				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410A46

ANALYTICAL QC SUMMARY REPORT

BatchID: 197614

Sample ID: 1410A82-001AMS	Client ID:					Units: ug/L	Prep Date: 10/14/2014	Run No: 277779			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 197614	Analysis Date: 10/14/2014	Seq No: 5871762			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	49.91	5.0	50.00		99.8	60.2	159				
Benzene	47.12	5.0	50.00		94.2	70.2	138				
Chlorobenzene	45.46	5.0	50.00		90.9	70.1	133				
Toluene	45.72	5.0	50.00		91.4	70	139				
Trichloroethene	44.70	5.0	50.00		89.4	70.1	144				
Surr: 4-Bromofluorobenzene	45.29	0	50.00		90.6	66.2	120				
Surr: Dibromofluoromethane	49.64	0	50.00		99.3	79.5	121				
Surr: Toluene-d8	48.87	0	50.00		97.7	77	117				

Sample ID: 1410A82-001AMSD	Client ID:					Units: ug/L	Prep Date: 10/14/2014	Run No: 277779			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 197614	Analysis Date: 10/14/2014	Seq No: 5871763			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	48.60	5.0	50.00		97.2	60.2	159	49.91	2.66	19.2	
Benzene	46.26	5.0	50.00		92.5	70.2	138	47.12	1.84	20	
Chlorobenzene	44.28	5.0	50.00		88.6	70.1	133	45.46	2.63	20	
Toluene	44.81	5.0	50.00		89.6	70	139	45.72	2.01	20	
Trichloroethene	44.00	5.0	50.00		88.0	70.1	144	44.70	1.58	20	
Surr: 4-Bromofluorobenzene	45.32	0	50.00		90.6	66.2	120	45.29	0	0	
Surr: Dibromofluoromethane	48.96	0	50.00		97.9	79.5	121	49.64	0	0	
Surr: Toluene-d8	49.16	0	50.00		98.3	77	117	48.87	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410A46

ANALYTICAL QC SUMMARY REPORT

BatchID: 197636

Sample ID: MB-197636	Client ID:					Units: ug/L	Prep Date: 10/15/2014		Run No: 277964		
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197636	Analysis Date: 10/15/2014		Seq No: 5874090		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2-Methylphenol	BRL	10									
4-Methylphenol	BRL	10									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Anthracene	BRL	10									
Benz(a)anthracene	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Pentachlorophenol	BRL	25									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410A46

ANALYTICAL QC SUMMARY REPORT

BatchID: 197636

Sample ID: MB-197636	Client ID:					Units: ug/L	Prep Date: 10/15/2014	Run No: 277964			
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197636	Analysis Date: 10/15/2014	Seq No: 5874090			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	86.35	0	100.0		86.4	51.5	124				
Surr: 2-Fluorobiphenyl	31.75	0	50.00		63.5	51.7	118				
Surr: 2-Fluorophenol	51.07	0	100.0		51.1	26	120				
Surr: 4-Terphenyl-d14	43.28	0	50.00		86.6	45.2	137				
Surr: Nitrobenzene-d5	38.69	0	50.00		77.4	42	120				
Surr: Phenol-d5	32.46	0	100.0		32.5	12.3	120				

Sample ID: LCS-197636	Client ID:					Units: ug/L	Prep Date: 10/15/2014	Run No: 277964			
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197636	Analysis Date: 10/15/2014	Seq No: 5874091			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	104.8	10	100.0		105	67.7	122				
Pentachlorophenol	131.6	25	100.0		132	48.6	140				
Phenol	45.11	10	100.0		45.1	24.6	120				
Pyrene	96.83	10	100.0		96.8	68.3	123				
Surr: 2,4,6-Tribromophenol	104.5	0	100.0		104	51.5	124				
Surr: 2-Fluorobiphenyl	40.92	0	50.00		81.8	51.7	118				
Surr: 2-Fluorophenol	64.66	0	100.0		64.7	26	120				
Surr: 4-Terphenyl-d14	51.51	0	50.00		103	45.2	137				
Surr: Nitrobenzene-d5	45.90	0	50.00		91.8	42	120				
Surr: Phenol-d5	44.30	0	100.0		44.3	12.3	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410A46

ANALYTICAL QC SUMMARY REPORT

BatchID: 197636

Sample ID: 1410938-025FMS	Client ID:					Units: ug/L	Prep Date: 10/15/2014	Run No: 277964			
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197636	Analysis Date: 10/15/2014	Seq No: 5874094			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	90.64	10	100.0		90.6	51.9	120				
Pentachlorophenol	116.9	25	100.0		117	40.7	139				
Phenol	55.70	10	100.0		55.7	30.5	120				
Pyrene	82.92	10	100.0		82.9	50.6	120				
Surr: 2,4,6-Tribromophenol	93.52	0	100.0		93.5	51.5	124				
Surr: 2-Fluorobiphenyl	40.29	0	50.00		80.6	51.7	118				
Surr: 2-Fluorophenol	68.29	0	100.0		68.3	26	120				
Surr: 4-Terphenyl-d14	45.19	0	50.00		90.4	45.2	137				
Surr: Nitrobenzene-d5	41.07	0	50.00		82.1	42	120				
Surr: Phenol-d5	57.92	0	100.0		57.9	12.3	120				

Sample ID: 1410938-025FMSD	Client ID:					Units: ug/L	Prep Date: 10/15/2014	Run No: 277964			
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197636	Analysis Date: 10/15/2014	Seq No: 5874095			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	90.04	10	100.0		90.0	51.9	120	90.64	0.664	24.9	
Pentachlorophenol	110.9	25	100.0		111	40.7	139	116.9	5.31	28.1	
Phenol	52.22	10	100.0		52.2	30.5	120	55.70	6.45	34.4	
Pyrene	81.28	10	100.0		81.3	50.6	120	82.92	2.00	26.7	
Surr: 2,4,6-Tribromophenol	90.12	0	100.0		90.1	51.5	124	93.52	0	0	
Surr: 2-Fluorobiphenyl	38.95	0	50.00		77.9	51.7	118	40.29	0	0	
Surr: 2-Fluorophenol	65.67	0	100.0		65.7	26	120	68.29	0	0	
Surr: 4-Terphenyl-d14	44.55	0	50.00		89.1	45.2	137	45.19	0	0	
Surr: Nitrobenzene-d5	40.14	0	50.00		80.3	42	120	41.07	0	0	
Surr: Phenol-d5	52.39	0	100.0		52.4	12.3	120	57.92	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 24, 2014

Len Diprima
Woodard & Curran
2055 Sugarloaf Circle, Suite 175
Duluth GA 30094

TEL: (770) 622-6766

FAX:

RE: Rathon

Dear Len Diprima:

Order No: 1410I15

Analytical Environmental Services, Inc. received 9 samples on 10/17/2014 12:19:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Chantelle Kanhai
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1410-15

Date: 10-17-14

Page 1 of 1

COMPANY: Woodward + Curran		ADDRESS: 2055 Sugarloaf Circle Suite 175 Duluth GA. 30097		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
PHONE: 770 622 6746		FAX: 770 396 0095		VOL SUBC														
SAMPLED BY: JDK		SIGNATURE: <i>Joe King</i>														PRESERVATION (See codes)		
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)												
		DATE	TIME															
1	MW-TX-S	10-16-14	0925	X		GW	X	X										4
2	MW-TX-W	10-16-14	1012	X		GW	X	X										4
3	MW-19	10-16-14	1120	X		GW	X	X										4
4	MW-20	10-16-14	1225	X		GW	X	X										4
5	MW-21	10-16-14	1323	X		GW	X	X										4
6	MW-18	10-17-14	0810	X		GW	X											2
7	MW-26	10-17-14	0855	X		GW	X	X										4
8	MW-25	10-17-14	1020	X		GW	X											2
9	MW-17	10-17-14	1120	X		GW	X											2
10																		
11																		
12																		
13																		
14																		

RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION				RECEIPT	
1: <i>Joe King</i>		10-17-14 / 12:19		1: <i>Latoya Reeves</i>		10/17/14 12:19		PROJECT NAME: <i>Rathon</i>				Total # of Containers	
2:				2:				PROJECT #: <i>0210274.00</i>				Turnaround Time Request ☒ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other _____	
3:				3:				SITE ADDRESS: <i>Chamblee GA</i>					
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				SEND REPORT TO: <i>Bryan Maurer, Len D'Amico</i>				STATE PROGRAM (if any): _____	
				OUT / / VIA:				INVOICE TO: <i>Joe King</i>				E-mail? Y/N: _____ Fax? Y/N: _____	
				IN <i>FedEx</i> UPS MAIL COURIER				QUOTE #: _____ PO#: _____				DATA PACKAGE: I II III IV	
				GREYHOUND OTHER _____									

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original: Yellow Copy - Client
Page 2 of 24

Analytical Environmental Services, Inc
Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-001

Client Sample ID: MW-TX-S
Collection Date: 10/16/2014 9:25:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,1-Dichloroethane	10	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,1-Dichloroethene	7.6	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,2-Dichlorobenzene	5.3	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
2-Butanone	BRL	50		ug/L	198076	1	10/23/2014 14:16	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/23/2014 14:16	NP
Acetone	BRL	50		ug/L	198076	1	10/23/2014 14:16	NP
Benzene	270	5.0		ug/L	198076	10	10/23/2014 15:09	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Chlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Chloroethane	BRL	10		ug/L	198076	1	10/23/2014 14:16	NP
cis-1,2-Dichloroethene	92	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Cyclohexane	14	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/23/2014 14:16	NP
Ethylbenzene	7.2	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Isopropylbenzene	10	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Styrene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Tetrachloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Toluene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Trichloroethene	9.7	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Vinyl chloride	70	2.0		ug/L	198076	1	10/23/2014 14:16	NP
Xylenes, Total	BRL	5.0		ug/L	198076	1	10/23/2014 14:16	NP
Surr: 4-Bromofluorobenzene	90.9	66.2-120		%REC	198076	10	10/23/2014 15:09	NP
Surr: 4-Bromofluorobenzene	94.2	66.2-120		%REC	198076	1	10/23/2014 14:16	NP
Surr: Dibromofluoromethane	97	79.5-121		%REC	198076	1	10/23/2014 14:16	NP
Surr: Dibromofluoromethane	96.4	79.5-121		%REC	198076	10	10/23/2014 15:09	NP
Surr: Toluene-d8	93	77-117		%REC	198076	10	10/23/2014 15:09	NP
Surr: Toluene-d8	95.9	77-117		%REC	198076	1	10/23/2014 14:16	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-001

Client Sample ID: MW-TX-S
 Collection Date: 10/16/2014 9:25:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197885	1	10/22/2014 20:13	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
2,4-Dichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
2,4-Dimethylphenol	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
2,4-Dinitrophenol	BRL	25		ug/L	197885	1	10/22/2014 20:13	YH
2-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
4-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Acenaphthene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Acenaphthylene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Anthracene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Benz(a)anthracene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Benzo(a)pyrene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Chrysene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Di-n-butyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Di-n-octyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Fluorene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Naphthalene	16	10		ug/L	197885	1	10/22/2014 20:13	YH
Pentachlorophenol	BRL	25		ug/L	197885	1	10/22/2014 20:13	YH
Phenanthrene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Phenol	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Pyrene	BRL	10		ug/L	197885	1	10/22/2014 20:13	YH
Surr: 2,4,6-Tribromophenol	91.4	51.5-124		%REC	197885	1	10/22/2014 20:13	YH
Surr: 2-Fluorobiphenyl	91.3	51.7-118		%REC	197885	1	10/22/2014 20:13	YH
Surr: 2-Fluorophenol	65.7	26-120		%REC	197885	1	10/22/2014 20:13	YH
Surr: 4-Terphenyl-d14	87	45.2-137		%REC	197885	1	10/22/2014 20:13	YH
Surr: Nitrobenzene-d5	94.7	42-120		%REC	197885	1	10/22/2014 20:13	YH
Surr: Phenol-d5	46.5	12.3-120		%REC	197885	1	10/22/2014 20:13	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-002

Client Sample ID: MW-TX-W
Collection Date: 10/16/2014 10:12:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,1-Dichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,1-Dichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
2-Butanone	BRL	50		ug/L	198076	1	10/22/2014 19:20	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/22/2014 19:20	NP
Acetone	BRL	50		ug/L	198076	1	10/22/2014 19:20	NP
Benzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Chlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Chloroethane	BRL	10		ug/L	198076	1	10/22/2014 19:20	NP
cis-1,2-Dichloroethene	17	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/22/2014 19:20	NP
Ethylbenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Isopropylbenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Styrene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Tetrachloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Toluene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Trichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/22/2014 19:20	NP
Xylenes, Total	BRL	5.0		ug/L	198076	1	10/22/2014 19:20	NP
Surr: 4-Bromofluorobenzene	86.9	66.2-120		%REC	198076	1	10/22/2014 19:20	NP
Surr: Dibromofluoromethane	94.6	79.5-121		%REC	198076	1	10/22/2014 19:20	NP
Surr: Toluene-d8	95.1	77-117		%REC	198076	1	10/22/2014 19:20	NP
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3510C)				
2,4,5-Trichlorophenol	BRL	25		ug/L	197885	1	10/22/2014 20:40	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-002

Client Sample ID: MW-TX-W
Collection Date: 10/16/2014 10:12:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,6-Trichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
2,4-Dichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
2,4-Dimethylphenol	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
2,4-Dinitrophenol	BRL	25		ug/L	197885	1	10/22/2014 20:40	YH
2-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
4-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Acenaphthene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Acenaphthylene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Anthracene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Benz(a)anthracene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Benzo(a)pyrene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Chrysene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Di-n-butyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Di-n-octyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Fluorene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Naphthalene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Pentachlorophenol	BRL	25		ug/L	197885	1	10/22/2014 20:40	YH
Phenanthrene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Phenol	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Pyrene	BRL	10		ug/L	197885	1	10/22/2014 20:40	YH
Surr: 2,4,6-Tribromophenol	84	51.5-124		%REC	197885	1	10/22/2014 20:40	YH
Surr: 2-Fluorobiphenyl	87.1	51.7-118		%REC	197885	1	10/22/2014 20:40	YH
Surr: 2-Fluorophenol	61.9	26-120		%REC	197885	1	10/22/2014 20:40	YH
Surr: 4-Terphenyl-d14	88.5	45.2-137		%REC	197885	1	10/22/2014 20:40	YH
Surr: Nitrobenzene-d5	91.3	42-120		%REC	197885	1	10/22/2014 20:40	YH
Surr: Phenol-d5	42.3	12.3-120		%REC	197885	1	10/22/2014 20:40	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-003

Client Sample ID: MW-19
Collection Date: 10/16/2014 11:20:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,1-Dichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,1-Dichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,2,4-Trichlorobenzene	1000	5.0		ug/L	198076	10	10/23/2014 14:42	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,2-Dichlorobenzene	1600	5.0		ug/L	198076	10	10/23/2014 14:42	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,3-Dichlorobenzene	98	5.0		ug/L	198076	1	10/22/2014 20:17	NP
1,4-Dichlorobenzene	640	5.0		ug/L	198076	10	10/23/2014 14:42	NP
2-Butanone	BRL	50		ug/L	198076	1	10/22/2014 20:17	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/22/2014 20:17	NP
Acetone	BRL	50		ug/L	198076	1	10/22/2014 20:17	NP
Benzene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Chlorobenzene	300	5.0		ug/L	198076	10	10/23/2014 14:42	NP
Chloroethane	BRL	10		ug/L	198076	1	10/22/2014 20:17	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/22/2014 20:17	NP
Ethylbenzene	15	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Isopropylbenzene	6.4	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Styrene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Tetrachloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Toluene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Trichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/22/2014 20:17	NP
Xylenes, Total	49	5.0		ug/L	198076	1	10/22/2014 20:17	NP
Surr: 4-Bromofluorobenzene	91.5	66.2-120		%REC	198076	1	10/22/2014 20:17	NP
Surr: 4-Bromofluorobenzene	92.9	66.2-120		%REC	198076	10	10/23/2014 14:42	NP
Surr: Dibromofluoromethane	93.1	79.5-121		%REC	198076	1	10/22/2014 20:17	NP
Surr: Dibromofluoromethane	98	79.5-121		%REC	198076	10	10/23/2014 14:42	NP
Surr: Toluene-d8	94.8	77-117		%REC	198076	1	10/22/2014 20:17	NP
Surr: Toluene-d8	95.9	77-117		%REC	198076	10	10/23/2014 14:42	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-003

Client Sample ID: MW-19
 Collection Date: 10/16/2014 11:20:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197885	1	10/22/2014 21:07	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
2,4-Dichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
2,4-Dimethylphenol	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
2,4-Dinitrophenol	BRL	25		ug/L	197885	1	10/22/2014 21:07	YH
2-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
4-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Acenaphthene	23	10		ug/L	197885	1	10/22/2014 21:07	YH
Acenaphthylene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Anthracene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Benz(a)anthracene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Benzo(a)pyrene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Chrysene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Di-n-butyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Di-n-octyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Fluorene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Naphthalene	300	100		ug/L	197885	10	10/23/2014 14:09	YH
Pentachlorophenol	BRL	25		ug/L	197885	1	10/22/2014 21:07	YH
Phenanthrene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Phenol	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Pyrene	BRL	10		ug/L	197885	1	10/22/2014 21:07	YH
Surr: 2,4,6-Tribromophenol	69.7	51.5-124		%REC	197885	1	10/22/2014 21:07	YH
Surr: 2-Fluorobiphenyl	66.6	51.7-118		%REC	197885	1	10/22/2014 21:07	YH
Surr: 2-Fluorophenol	61.5	26-120		%REC	197885	1	10/22/2014 21:07	YH
Surr: 4-Terphenyl-d14	89.4	45.2-137		%REC	197885	1	10/22/2014 21:07	YH
Surr: Nitrobenzene-d5	94.3	42-120		%REC	197885	1	10/22/2014 21:07	YH
Surr: Phenol-d5	43.1	12.3-120		%REC	197885	1	10/22/2014 21:07	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-004

Client Sample ID: MW-20
Collection Date: 10/16/2014 12:25:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,1-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,1-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,2,4-Trichlorobenzene	840	50		ug/L	198076	10	10/23/2014 16:47	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,2-Dichlorobenzene	1300	50		ug/L	198076	10	10/23/2014 16:47	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,3-Dichlorobenzene	45	5.0		ug/L	198076	1	10/23/2014 13:56	NP
1,4-Dichlorobenzene	94	5.0		ug/L	198076	1	10/23/2014 13:56	NP
2-Butanone	BRL	50		ug/L	198076	1	10/23/2014 13:56	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/23/2014 13:56	NP
Acetone	BRL	50		ug/L	198076	1	10/23/2014 13:56	NP
Benzene	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Chlorobenzene	31	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Chloroethane	BRL	10		ug/L	198076	1	10/23/2014 13:56	NP
cis-1,2-Dichloroethene	17	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/23/2014 13:56	NP
Ethylbenzene	66	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Isopropylbenzene	14	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Styrene	8.6	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Tetrachloroethene	5.1	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Toluene	61	5.0		ug/L	198076	1	10/23/2014 13:56	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Trichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/23/2014 13:56	NP
Xylenes, Total	240	5.0		ug/L	198076	1	10/23/2014 13:56	NP
Surr: 4-Bromofluorobenzene	90.1	66.2-120		%REC	198076	10	10/23/2014 16:47	NP
Surr: 4-Bromofluorobenzene	94	66.2-120		%REC	198076	1	10/23/2014 13:56	NP
Surr: Dibromofluoromethane	89.6	79.5-121		%REC	198076	10	10/23/2014 16:47	NP
Surr: Dibromofluoromethane	93.4	79.5-121		%REC	198076	1	10/23/2014 13:56	NP
Surr: Toluene-d8	93.3	77-117		%REC	198076	10	10/23/2014 16:47	NP
Surr: Toluene-d8	95.2	77-117		%REC	198076	1	10/23/2014 13:56	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-004

Client Sample ID: MW-20
 Collection Date: 10/16/2014 12:25:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197885	1	10/22/2014 21:33	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
2,4-Dichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
2,4-Dimethylphenol	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
2,4-Dinitrophenol	BRL	25		ug/L	197885	1	10/22/2014 21:33	YH
2-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
4-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Acenaphthene	14	10		ug/L	197885	1	10/22/2014 21:33	YH
Acenaphthylene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Anthracene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Benz(a)anthracene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Benzo(a)pyrene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Chrysene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Di-n-butyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Di-n-octyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Fluorene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Naphthalene	800	100		ug/L	197885	10	10/23/2014 14:36	YH
Pentachlorophenol	BRL	25		ug/L	197885	1	10/22/2014 21:33	YH
Phenanthrene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Phenol	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Pyrene	BRL	10		ug/L	197885	1	10/22/2014 21:33	YH
Surr: 2,4,6-Tribromophenol	89.8	51.5-124		%REC	197885	1	10/22/2014 21:33	YH
Surr: 2-Fluorobiphenyl	88.4	51.7-118		%REC	197885	1	10/22/2014 21:33	YH
Surr: 2-Fluorophenol	61.9	26-120		%REC	197885	1	10/22/2014 21:33	YH
Surr: 4-Terphenyl-d14	89.4	45.2-137		%REC	197885	1	10/22/2014 21:33	YH
Surr: Nitrobenzene-d5	95.7	42-120		%REC	197885	1	10/22/2014 21:33	YH
Surr: Phenol-d5	47.3	12.3-120		%REC	197885	1	10/22/2014 21:33	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-005

Client Sample ID: MW-21
 Collection Date: 10/16/2014 1:23:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,1-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,1-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,2,4-Trichlorobenzene	300	50		ug/L	198076	10	10/23/2014 17:16	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,2-Dichlorobenzene	47	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
1,4-Dichlorobenzene	6.0	5.0		ug/L	198076	1	10/23/2014 19:39	NP
2-Butanone	BRL	50		ug/L	198076	1	10/23/2014 19:39	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/23/2014 19:39	NP
Acetone	BRL	50		ug/L	198076	1	10/23/2014 19:39	NP
Benzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Chlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Chloroethane	BRL	10		ug/L	198076	1	10/23/2014 19:39	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/23/2014 19:39	NP
Ethylbenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Isopropylbenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Styrene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Tetrachloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Toluene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Trichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/23/2014 19:39	NP
Xylenes, Total	BRL	5.0		ug/L	198076	1	10/23/2014 19:39	NP
Surr: 4-Bromofluorobenzene	89.5	66.2-120		%REC	198076	1	10/23/2014 19:39	NP
Surr: 4-Bromofluorobenzene	89	66.2-120		%REC	198076	10	10/23/2014 17:16	NP
Surr: Dibromofluoromethane	91.9	79.5-121		%REC	198076	1	10/23/2014 19:39	NP
Surr: Dibromofluoromethane	91.4	79.5-121		%REC	198076	10	10/23/2014 17:16	NP
Surr: Toluene-d8	93.6	77-117		%REC	198076	1	10/23/2014 19:39	NP
Surr: Toluene-d8	94.2	77-117		%REC	198076	10	10/23/2014 17:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-005

Client Sample ID: MW-21
 Collection Date: 10/16/2014 1:23:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197885	1	10/22/2014 22:00	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
2,4-Dichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
2,4-Dimethylphenol	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
2,4-Dinitrophenol	BRL	25		ug/L	197885	1	10/22/2014 22:00	YH
2-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
4-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Acenaphthene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Acenaphthylene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Anthracene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Benz(a)anthracene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Benzo(a)pyrene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Chrysene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Di-n-butyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Di-n-octyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Fluorene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Naphthalene	23	10		ug/L	197885	1	10/22/2014 22:00	YH
Pentachlorophenol	BRL	25		ug/L	197885	1	10/22/2014 22:00	YH
Phenanthrene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Phenol	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Pyrene	BRL	10		ug/L	197885	1	10/22/2014 22:00	YH
Surr: 2,4,6-Tribromophenol	87.3	51.5-124		%REC	197885	1	10/22/2014 22:00	YH
Surr: 2-Fluorobiphenyl	86.8	51.7-118		%REC	197885	1	10/22/2014 22:00	YH
Surr: 2-Fluorophenol	57.2	26-120		%REC	197885	1	10/22/2014 22:00	YH
Surr: 4-Terphenyl-d14	89.2	45.2-137		%REC	197885	1	10/22/2014 22:00	YH
Surr: Nitrobenzene-d5	87.3	42-120		%REC	197885	1	10/22/2014 22:00	YH
Surr: Phenol-d5	42.7	12.3-120		%REC	197885	1	10/22/2014 22:00	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-006

Client Sample ID: MW-18
Collection Date: 10/17/2014 8:10:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,1-Dichloroethane	42	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,1-Dichloroethene	8.6	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
2-Butanone	BRL	50		ug/L	198076	1	10/23/2014 19:11	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/23/2014 19:11	NP
Acetone	BRL	50		ug/L	198076	1	10/23/2014 19:11	NP
Benzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Chlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Chloroethane	BRL	10		ug/L	198076	1	10/23/2014 19:11	NP
cis-1,2-Dichloroethene	1100	50		ug/L	198076	10	10/23/2014 17:45	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/23/2014 19:11	NP
Ethylbenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Isopropylbenzene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Styrene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Tetrachloroethene	16	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Toluene	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
trans-1,2-Dichloroethene	12	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Trichloroethene	12	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Vinyl chloride	53	2.0		ug/L	198076	1	10/23/2014 19:11	NP
Xylenes, Total	BRL	5.0		ug/L	198076	1	10/23/2014 19:11	NP
Surr: 4-Bromofluorobenzene	87.3	66.2-120		%REC	198076	1	10/23/2014 19:11	NP
Surr: 4-Bromofluorobenzene	87.6	66.2-120		%REC	198076	10	10/23/2014 17:45	NP
Surr: Dibromofluoromethane	91.1	79.5-121		%REC	198076	10	10/23/2014 17:45	NP
Surr: Dibromofluoromethane	92.2	79.5-121		%REC	198076	1	10/23/2014 19:11	NP
Surr: Toluene-d8	93.4	77-117		%REC	198076	1	10/23/2014 19:11	NP
Surr: Toluene-d8	94.3	77-117		%REC	198076	10	10/23/2014 17:45	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 24-Oct-14

Client: Woodard & Curran
Project Name: Rathon
Lab ID: 1410I15-007

Client Sample ID: MW-26
Collection Date: 10/17/2014 8:55:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,1-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,1-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,2,4-Trichlorobenzene	630	50		ug/L	198076	10	10/23/2014 18:13	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,2-Dichlorobenzene	1200	50		ug/L	198076	10	10/23/2014 18:13	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,3-Dichlorobenzene	68	5.0		ug/L	198076	1	10/23/2014 15:21	NP
1,4-Dichlorobenzene	170	5.0		ug/L	198076	1	10/23/2014 15:21	NP
2-Butanone	BRL	50		ug/L	198076	1	10/23/2014 15:21	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/23/2014 15:21	NP
Acetone	BRL	50		ug/L	198076	1	10/23/2014 15:21	NP
Benzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Chlorobenzene	7.5	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Chloroethane	BRL	10		ug/L	198076	1	10/23/2014 15:21	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/23/2014 15:21	NP
Ethylbenzene	20	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Isopropylbenzene	6.4	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Styrene	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Tetrachloroethene	12	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Toluene	39	5.0		ug/L	198076	1	10/23/2014 15:21	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Trichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/23/2014 15:21	NP
Xylenes, Total	130	5.0		ug/L	198076	1	10/23/2014 15:21	NP
Surr: 4-Bromofluorobenzene	89.3	66.2-120		%REC	198076	10	10/23/2014 18:13	NP
Surr: 4-Bromofluorobenzene	93.1	66.2-120		%REC	198076	1	10/23/2014 15:21	NP
Surr: Dibromofluoromethane	89.3	79.5-121		%REC	198076	10	10/23/2014 18:13	NP
Surr: Dibromofluoromethane	92.2	79.5-121		%REC	198076	1	10/23/2014 15:21	NP
Surr: Toluene-d8	93.5	77-117		%REC	198076	10	10/23/2014 18:13	NP
Surr: Toluene-d8	94.7	77-117		%REC	198076	1	10/23/2014 15:21	NP

Qualifiers:

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- BRL Below reporting limit
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- N Analyte not NELAC certified
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- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-007

Client Sample ID: MW-26
 Collection Date: 10/17/2014 8:55:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
2,4,5-Trichlorophenol	BRL	25		ug/L	197885	1	10/22/2014 22:27	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
2,4-Dichlorophenol	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
2,4-Dimethylphenol	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
2,4-Dinitrophenol	BRL	25		ug/L	197885	1	10/22/2014 22:27	YH
2-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
4-Methylphenol	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Acenaphthene	19	10		ug/L	197885	1	10/22/2014 22:27	YH
Acenaphthylene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Anthracene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Benz(a)anthracene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Benzo(a)pyrene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Benzo(b)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Benzo(k)fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Chrysene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Di-n-butyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Di-n-octyl phthalate	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Fluoranthene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Fluorene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Naphthalene	440	100		ug/L	197885	10	10/23/2014 15:01	YH
Pentachlorophenol	BRL	25		ug/L	197885	1	10/22/2014 22:27	YH
Phenanthrene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Phenol	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Pyrene	BRL	10		ug/L	197885	1	10/22/2014 22:27	YH
Surr: 2,4,6-Tribromophenol	92.8	51.5-124		%REC	197885	1	10/22/2014 22:27	YH
Surr: 2-Fluorobiphenyl	91.9	51.7-118		%REC	197885	1	10/22/2014 22:27	YH
Surr: 2-Fluorophenol	59	26-120		%REC	197885	1	10/22/2014 22:27	YH
Surr: 4-Terphenyl-d14	83.3	45.2-137		%REC	197885	1	10/22/2014 22:27	YH
Surr: Nitrobenzene-d5	100	42-120		%REC	197885	1	10/22/2014 22:27	YH
Surr: Phenol-d5	42.6	12.3-120		%REC	197885	1	10/22/2014 22:27	YH

Qualifiers:

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- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 24-Oct-14

Client: Woodard & Curran
 Project Name: Rathon
 Lab ID: 1410I15-008

Client Sample ID: MW-25
 Collection Date: 10/17/2014 10:20:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,1-Dichloroethane	15	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,1-Dichloroethene	6.5	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
2-Butanone	BRL	50		ug/L	198076	1	10/22/2014 19:49	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/22/2014 19:49	NP
Acetone	BRL	50		ug/L	198076	1	10/22/2014 19:49	NP
Benzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Chlorobenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Chloroethane	BRL	10		ug/L	198076	1	10/22/2014 19:49	NP
cis-1,2-Dichloroethene	190	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/22/2014 19:49	NP
Ethylbenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Isopropylbenzene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Styrene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Tetrachloroethene	17	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Toluene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Trichloroethene	6.5	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/22/2014 19:49	NP
Xylenes, Total	BRL	5.0		ug/L	198076	1	10/22/2014 19:49	NP
Surr: 4-Bromofluorobenzene	86.5	66.2-120		%REC	198076	1	10/22/2014 19:49	NP
Surr: Dibromofluoromethane	94.5	79.5-121		%REC	198076	1	10/22/2014 19:49	NP
Surr: Toluene-d8	94.7	77-117		%REC	198076	1	10/22/2014 19:49	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 24-Oct-14

Client: Woodard & Curran	Client Sample ID: MW-17
Project Name: Rathon	Collection Date: 10/17/2014 11:20:00 AM
Lab ID: 1410I15-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)			
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,1-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,1-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,2,3-Trichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,2-Dichloroethane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,2-Dichloropropane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
2-Butanone	BRL	50		ug/L	198076	1	10/23/2014 15:35	NP
4-Methyl-2-pentanone	BRL	10		ug/L	198076	1	10/23/2014 15:35	NP
Acetone	BRL	50		ug/L	198076	1	10/23/2014 15:35	NP
Benzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Bromoform	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Carbon disulfide	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Chlorobenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Chloroethane	BRL	10		ug/L	198076	1	10/23/2014 15:35	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Cyclohexane	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Dichlorodifluoromethane	BRL	10		ug/L	198076	1	10/23/2014 15:35	NP
Ethylbenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Isopropylbenzene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Methylene chloride	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Styrene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Tetrachloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Toluene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Trichloroethene	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Vinyl chloride	BRL	2.0		ug/L	198076	1	10/23/2014 15:35	NP
Xylenes, Total	BRL	5.0		ug/L	198076	1	10/23/2014 15:35	NP
Surr: 4-Bromofluorobenzene	92.5	66.2-120		%REC	198076	1	10/23/2014 15:35	NP
Surr: Dibromofluoromethane	94.8	79.5-121		%REC	198076	1	10/23/2014 15:35	NP
Surr: Toluene-d8	96.2	77-117		%REC	198076	1	10/23/2014 15:35	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

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Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Woodward & Curran

Work Order Number 1410.15

Checklist completed by JB 10/16/14
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($4^{\circ}\text{C} \pm 2$)* Yes ☒ No ☐

Cooler #1 3.2 Cooler #2 3.6 Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by JB

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

ANALYTICAL QC SUMMARY REPORT

BatchID: 197885

Sample ID: MB-197885	Client ID:					Units: ug/L	Prep Date: 10/21/2014	Run No: 278371			
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197885	Analysis Date: 10/22/2014	Seq No: 5883339			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2-Methylphenol	BRL	10									
4-Methylphenol	BRL	10									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Anthracene	BRL	10									
Benz(a)anthracene	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Pentachlorophenol	BRL	25									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410I15

ANALYTICAL QC SUMMARY REPORT

BatchID: 197885

Sample ID: MB-197885	Client ID:					Units: ug/L	Prep Date: 10/21/2014	Run No: 278371			
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197885	Analysis Date: 10/22/2014	Seq No: 5883339			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	81.98	0	100.0		82.0	51.5	124				
Surr: 2-Fluorobiphenyl	44.77	0	50.00		89.5	51.7	118				
Surr: 2-Fluorophenol	64.20	0	100.0		64.2	26	120				
Surr: 4-Terphenyl-d14	45.20	0	50.00		90.4	45.2	137				
Surr: Nitrobenzene-d5	46.23	0	50.00		92.5	42	120				
Surr: Phenol-d5	42.74	0	100.0		42.7	12.3	120				

Sample ID: LCS-197885	Client ID:					Units: ug/L	Prep Date: 10/21/2014	Run No: 278371			
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197885	Analysis Date: 10/22/2014	Seq No: 5883340			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	99.04	10	100.0		99.0	67.7	122				
Pentachlorophenol	107.8	25	100.0		108	48.6	140				
Phenol	44.96	10	100.0		45.0	24.6	120				
Pyrene	98.31	10	100.0		98.3	68.3	123				
Surr: 2,4,6-Tribromophenol	101.8	0	100.0		102	51.5	124				
Surr: 2-Fluorobiphenyl	49.29	0	50.00		98.6	51.7	118				
Surr: 2-Fluorophenol	63.92	0	100.0		63.9	26	120				
Surr: 4-Terphenyl-d14	54.70	0	50.00		109	45.2	137				
Surr: Nitrobenzene-d5	46.28	0	50.00		92.6	42	120				
Surr: Phenol-d5	45.44	0	100.0		45.4	12.3	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410I15

ANALYTICAL QC SUMMARY REPORT

BatchID: 197885

Sample ID: 1410G17-002BMS	Client ID:					Units: ug/L	Prep Date: 10/21/2014	Run No: 278371			
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D					BatchID: 197885	Analysis Date: 10/22/2014	Seq No: 5883531			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	89.39	10	100.0		89.4	51.9	120				
Pentachlorophenol	103.3	25	100.0		103	40.7	139				
Phenol	69.01	10	100.0		69.0	30.5	120				
Pyrene	82.99	10	100.0		83.0	50.6	120				
Surr: 2,4,6-Tribromophenol	76.64	0	100.0		76.6	51.5	124				
Surr: 2-Fluorobiphenyl	40.26	0	50.00		80.5	51.7	118				
Surr: 2-Fluorophenol	68.23	0	100.0		68.2	26	120				
Surr: 4-Terphenyl-d14	41.44	0	50.00		82.9	45.2	137				
Surr: Nitrobenzene-d5	40.72	0	50.00		81.4	42	120				
Surr: Phenol-d5	60.38	0	100.0		60.4	12.3	120				

Sample ID: 1410G17-002BMSD	Client ID:				Units: ug/L	Prep Date: 10/21/2014	Run No: 278371				
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D				BatchID: 197885	Analysis Date: 10/22/2014	Seq No: 5883536				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	99.21	10	100.0		99.2	51.9	120	89.39	10.4	24.9	
Pentachlorophenol	108.6	25	100.0		109	40.7	139	103.3	4.93	28.1	
Phenol	66.09	10	100.0		66.1	30.5	120	69.01	4.32	34.4	
Pyrene	93.01	10	100.0		93.0	50.6	120	82.99	11.4	26.7	
Surr: 2,4,6-Tribromophenol	89.74	0	100.0		89.7	51.5	124	76.64	0	0	
Surr: 2-Fluorobiphenyl	45.27	0	50.00		90.5	51.7	118	40.26	0	0	
Surr: 2-Fluorophenol	69.36	0	100.0		69.4	26	120	68.23	0	0	
Surr: 4-Terphenyl-d14	46.43	0	50.00		92.9	45.2	137	41.44	0	0	
Surr: Nitrobenzene-d5	44.27	0	50.00		88.5	42	120	40.72	0	0	
Surr: Phenol-d5	58.29	0	100.0		58.3	12.3	120	60.38	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410I15

ANALYTICAL QC SUMMARY REPORT

BatchID: 198076

Sample ID: MB-198076	Client ID:					Units: ug/L	Prep Date: 10/22/2014		Run No: 278320		
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 198076	Analysis Date: 10/22/2014		Seq No: 5883876		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromoform	BRL	5.0									
Carbon disulfide	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Isopropylbenzene	BRL	5.0									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410I15

ANALYTICAL QC SUMMARY REPORT

BatchID: 198076

Sample ID: MB-198076	Client ID:					Units: ug/L	Prep Date: 10/22/2014	Run No: 278320			
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 198076	Analysis Date: 10/22/2014	Seq No: 5883876			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.96	0	50.00		95.9	66.2	120				
Surr: Dibromofluoromethane	51.03	0	50.00		102	79.5	121				
Surr: Toluene-d8	50.87	0	50.00		102	77	117				

Sample ID: LCS-198076	Client ID:					Units: ug/L	Prep Date: 10/22/2014	Run No: 278320			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 198076	Analysis Date: 10/22/2014	Seq No: 5883877			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	40.87	5.0	50.00		81.7	63.1	140				
Benzene	48.15	5.0	50.00		96.3	74.2	129				
Chlorobenzene	46.78	5.0	50.00		93.6	70	129				
Toluene	46.90	5.0	50.00		93.8	74.2	129				
Trichloroethene	44.64	5.0	50.00		89.3	71.2	135				
Surr: 4-Bromofluorobenzene	49.15	0	50.00		98.3	66.2	120				
Surr: Dibromofluoromethane	51.70	0	50.00		103	79.5	121				
Surr: Toluene-d8	50.76	0	50.00		102	77	117				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Woodard & Curran
 Project Name: Rathon
 Workorder: 1410I15

ANALYTICAL QC SUMMARY REPORT

BatchID: 198076

Sample ID: 1410H53-001AMS	Client ID:					Units: ug/L	Prep Date: 10/22/2014	Run No: 278320			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 198076	Analysis Date: 10/22/2014	Seq No: 5883879			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	50.13	5.0	50.00		100	60.2	159				
Benzene	48.76	5.0	50.00		97.5	70.2	138				
Chlorobenzene	45.65	5.0	50.00		91.3	70.1	133				
Toluene	47.68	5.0	50.00		95.4	70	139				
Trichloroethene	50.14	5.0	50.00	3.640	93.0	70.1	144				
Surr: 4-Bromofluorobenzene	48.97	0	50.00		97.9	66.2	120				
Surr: Dibromofluoromethane	51.80	0	50.00		104	79.5	121				
Surr: Toluene-d8	51.00	0	50.00		102	77	117				

Sample ID: 1410H53-001AMSD	Client ID:	Units: ug/L				Prep Date: 10/22/2014	Run No: 278320				
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 198076				Analysis Date: 10/22/2014	Seq No: 5883880				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	46.15	5.0	50.00		92.3	60.2	159	50.13	8.27	19.2	
Benzene	46.20	5.0	50.00		92.4	70.2	138	48.76	5.39	20	
Chlorobenzene	43.74	5.0	50.00		87.5	70.1	133	45.65	4.27	20	
Toluene	45.04	5.0	50.00		90.1	70	139	47.68	5.69	20	
Trichloroethene	46.79	5.0	50.00	3.640	86.3	70.1	144	50.14	6.91	20	
Surr: 4-Bromofluorobenzene	48.45	0	50.00		96.9	66.2	120	48.97	0	0	
Surr: Dibromofluoromethane	51.93	0	50.00		104	79.5	121	51.80	0	0	
Surr: Toluene-d8	50.81	0	50.00		102	77	117	51.00	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		