REPSG
React Environmental
Professional Services Group, Inc.

CORRECTIVE ACTION PLAN

Calvert Citgo (Former Alger Country Store)
2815 North East Road
Town of North East
Cecil County, Maryland
MDE Case No. 92-2616-CE

REPSG Project Reference No. 005977.130.01

May 1, 2013

PREPARED FOR:

Country Stores, Inc.
2314 Market Street
Philadelphia, PA 19145
Attn: Mr. Chris Haab

PREPARED BY:

Suzanne Shourds
Environmental Risk Analyst

REVIEWED BY:

Brenda MacPhail Kellogg
Project Manager

Kevin McAllister, P.G.
Professional Geologist

P.O. Box 5377
6901 Kingsessing Avenue, Suite 201
Philadelphia, PA 19142-0377

215 729.3220
215 729.1557 (Fax)
www.repsg.com

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1.0 INTRODUCTION

React Environmental Professional Services Group, Inc. (REPSG, formerly "React Environmental Services Group, Inc." or "React") was retained by Country Stores, Inc. to complete a Corrective Action Plan (CAP) at 2815 North East Road in the town of North East, Cecil County, Maryland (Site), known as Maryland Department of the Environment (MDE) Case No. 92-2616-CE. The Site is currently occupied by an active "Citgo" Brand Gasoline Service Station. This Revised SIW has been prepared in general accordance with the *Maryland Environmental Assessment Technology for Leaking Underground Storage Tanks*, (MEAT LUST Guidance) produced by the Oil Control Program of the Waste Management Administration of the MDE (as revised February 2003). The specific scope of this CAP was designed to satisfy the conditions of the "Pilot Test Work Plan Approval" letter prepared by the MDE on January 8, 2013. This scope is defined in REPSG Proposal No. 011-9633.

The MDE's January 8, 2013 "Pilot Test Work Plan Approval" letter was prepared in response to REPSG's July 31, 2012 *Pilot Test Workplan (PTW)* and REPSG's *Letter in Response* to the MDE's "Request for Additional Pilot Test Information" dated December 13, 2012. The execution of the approved pilot test and the results thereof are presented in this CAP.

2.0 CONTACT INFORMATION

2.1 Remediator Contact Information

Country Stores, Inc.
2341 Market Street
Philadelphia, PA 19145

2.2 Owner Contact Information

Mr. Prag Patel
Calvert Citgo Stores
2815 Northeast Road
North East, Maryland, 21901

2.3 Consultant Contact Information

React Environmental Professional Services Group, Inc. (REPSG)
6901 Kingsessing Avenue, Suite 201
Philadelphia, PA 19142
Charlene Drake, Director of Operations: 215-729-3220 x 315
Brenda MacPhail Kellogg, Project Manager: 215-729-3220 x327

3.0 SITE BACKGROUND

This section discusses Site location and features and details regarding Site topography, geology, hydrogeology, regulatory and operational history, the continuing hydrogeological investigation, and the Site Conceptual Model.

3.1 Site Location and Description

The Site consists of an irregularly shaped parcel of land located at the street address: 2815 North East Road, in the Town of North East, Cecil County, Maryland. The Site measures approximately 1.05 acres in area; it is bounded by North East Road (MD Route 272) to the east, several single family residences across North East Road; Quaker Lane (old MD Route 272) and agricultural land to the west, an access road and agricultural land to the south, and a mixture of residential, commercial, and agricultural land to the north (see **Figure 1** in **Attachment 1**).

3.2 Site Features

Development at the Site consists of a single-story convenience store structure, located centrally at the Site, surrounded by landscaping, parking and drive areas typical of a service station. Gasoline and diesel pump islands are located east of the structure, parallel to Route 272. Gasoline is stored in one (1) 8,000-gallon underground storage tank (UST) and one (1) 12,000-gallon UST which are located in a single tank field to the north of the structure. A 12,000-gallon compartmentalized (two (2) 6,000-gallon compartments) diesel/kerosene fuel UST is situated beneath the diesel fuel pump island. A kerosene pump island is located adjacent to and directly north of the structure. An on-Site septic tank is located to the southwest of the existing building (see **Figure 2** in **Attachment 1)**. An on-Site potable well, labeled DW-001 for the purposes of this reporting, is located approximately 33 feet west of the existing structure at the Site. This potable well is actively used by the facility occupying the Site, and has a dedicated carbon filtration treatment system.

3.3 Area Topography

According to USGS topographic mapping (7.5-minute series, *Bay View, Maryland* Quadrangle) the Site is located at an elevation of approximately 420 feet above mean sea level (MSL). Topography at the Site slopes very gently towards the east and southeast. See **Figure 1** in **Attachment 1**.

3.4 Physiographic Province & Regional Geology

Based on review of mapping prepared by the Maryland Geological Survey[1], the site lies within the Upland Section of the Piedmont Plateau Physiographic Province in Maryland. The Piedmont Plateau Province extends from the inner edge of the Coastal Plain westward to Catoctin Mountain, the eastern boundary of the Blue Ridge Province. The

[1] Physiographic Provinces and their Subdivisions in Maryland, MGS, 2001: http://www.mgs.md.gov/esic/brochures/mdgeology.html

site is located in the eastern portion of the Piedmont Plateau, approximately 5 miles to the northwest of the boundary between the Piedmont and the Coastal Plain province.

The Piedmont Plateau has considerably more topographic relief than the Coastal Plain, with gently rolling uplands having as much as 500 ft. of local relief. Landforms within this province are generally underlain by extremely deformed and folded schist, gneiss and quartzite bedrock, with an overburden of unconsolidated material known as regolith. In several places these rocks have been intruded by granitic plutons and pegmatites. Differential erosion of these contrasting rock types has produced a distinctive topography in this part of the Piedmont.

Geologic mapping[2] indicates that the Site and its vicinity are underlain by the Pelitic Gneiss rock unit (formerly mapped as a section of the Wissahickon Formation) of metasedimentary rocks. The Pelitic Gneiss is described as "*lustrous, brown, medium to coarse-grained muscovite-biotite-quartz-plagioclase gneiss with… locally abundant red garnets... Unit has a streaked appearance due to…layers, veins, and stringers.*" Locally, the unit has an apparent thickness of up to 15,000 feet.

Based on Soil Survey mapping[3] for the area, soil at the Site is mapped as Glenelg loam (GeB), with 3 to 8 percent slopes. This soil type occurs on hillslopes and is described as "loamy residuum weathered from schist and phyllite." The Glenelg loam is further described as well drained, with moderately high to high permeability, and with a seasonal high water table greater than 80 inches from the surface.

3.5 Site Geology

3.5.1 *Lithology*

Based on the observations reported from REPSG's recent soil investigations, and previous soil investigations at the Site, the shallow subsurface materials consist primarily of brown to yellow-brown silty to sandy clay, and brown sand and gravel from the surface to a depth of approximately 10 to 15 feet below grade (fbg). Beginning at the depth of 10 to 15 fbg, the boring logs indicate the presence of highly weathered, dense, clayey unconsolidated materials, with significant mica content, that retain the foliation and schistosity of underlying bedrock (i.e., saprolite). Saprolite was observed to approximately 40 fbg. Competent bedrock was observed at a depth of 98 fbg during construction of the on-Site deep monitoring MW-008D.

3.5.2 *Other Geologic Structures*

A downhole acoustic test was completed on MW-008D on October 3, 2011 by Advanced Geologic Services (AGS). The results of this test indicated that the most prominent borehole fractures observable within the deep well were at 103 fbg, 110 fbg, and 111 fbg.

[2] Geologic Map of Cecil County, Maryland Geological Survey, 1986
[3] Natural Resources Conservation Service, Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

The fractures noted at 110 fbg and 111 fbg were indicative of the presence of a water bearing zone. In addition to these primary fractures, two secondary fractures were observed at 117 fbg and 120 fbg. These fractures did not appear to supply a significant amount of water.

3.6 Hydrogeology

3.6.1 *Surface Water*

No surface water bodies are present on the Site. An unnamed drainage swale runs along the west side of North East Road, beginning just south of the intersection of North East Road and Quaker Lane. The nearest permanent body of water in the vicinity of the Site is a small pond connected to North East Creek and located approximately 1,695 feet southwest of the Site. Surface water drainage follows the general direction of the slope at the Site (southeasterly). Storm drain collection basins are located on the roads to the east and west the Site. No stormwater collection basins were observed on the Site.

3.6.2 *Hydrology*

The Site is underlain by the Piedmont crystalline-rock aquifer systems; fractured igneous and metamorphic rock aquifers. This crystalline rock tends to possess low primary porosity; groundwater occurs and flows primarily through secondary porosity, i.e., rock joints and fractures. Groundwater in the fractured rock aquifers may occur in either confined or unconfined conditions. Groundwater flow patterns are dependent on multiple factors including regional topography, and various characteristics of rock fracturing, including orientation, density, and connectivity of the fractures.

There is a shallow water table (i.e., unconfined) aquifer in the overburden and weathered rock layers above the top of competent fractured rock. Subsurface investigations at the site indicated that groundwater table was generally first observed in the fine-grained overburden materials at the Site at depths of 20 to 24.5 fbg. Depths to water of 14.70 to 18.55 fbg were measured in the eleven (11) groundwater monitoring wells on the Site during the most recent full groundwater monitoring event, conducted in April 2013. (See **Table 2** and **Attachment 3**.)

Based on review of water elevations in groundwater monitoring wells at the Site, as calculated from measurements obtained during the last three (3) quarterly groundwater events (see **Figures 4**, **5**, and **7 in Attachment 1**), shallow groundwater at the Site is estimated to flow in a direction varying from easterly to southerly. It is not known whether variations in groundwater flow directions may be attributable to pumping in nearby potable wells, seasonal variations, or other factors.

4.0 SITE REGULATORY AND OPERATION HISTORY

4.1 Operational History and Usage

As noted in React's Revised Workplan (dated May 26, 2004), a review of prior environmental reporting indicated that the Site operated as a retail petroleum station since the late 1950's and it continues to be operated in that capacity. Currently the Site contains a total of three (3) USTs: one (1) 8,000-gallon steel-constructed UST containing gasoline; one (1) 12,000-gallon steel-constructed UST containing gasoline; and one (1) 12,000-gallon, steel-constructed compartmentalized UST containing diesel fuel and kerosene. All three (3) USTs were installed at the Site in February 1997, following the removal and disposal of the previous gasoline/diesel tank system. Relevant Site features are depicted on **Figure 2** in **Attachment 1**.

4.2 Investigation History

In the capacity of the environmental consultant for the Site, as contracted by Country Stores, Inc., REPSG reviewed all available prior reporting and correspondence for the Site. This reporting included the following:

- A Preliminary Environmental Site Assessment Report conducted by Geomatrix, Inc. in August 1991;
- A Report of Observations completed by the MDE in August 2003; a Report of Direct Push Soil Sampling conducted by Advanced Environmental Concepts, Inc. (AEC) in October 2003;
- The Revised Work Plan for Environmental Investigation submitted by React in May 2004; Monitoring Well Gauging and Sampling Reports completed by AEC in 2008;
- The Site Assessment Report (SAR) submitted by REPSG in December 2008;
- The Site Status Report and Site Investigation Workplan (SSR/SIW) submitted by REPSG on April 23, 2010;
- The Revised Subsurface Investigation Workplan (SIW) submitted by REPSG on August 27, 2010;
- The Site Status Report (SSR) submitted by REPSG on December 21, 2010;
- The Active Remedial Technologies Report submitted by REPSG on August 2011;
- Discrete Zone Sampling Methodology information submitted by REPSG on May 25, 2012;
- The Pilot Test Workplan (PTW) submitted by REPSG on July 31, 2012;

- The Bench Test Workplan submitted by REPSG on November 2, 2012;
- The Response to Request for Additional Pilot Testing Information submitted by REPSG on December 13, 2012; and
- Various correspondence from the MDE regarding the status of the Site.

Details of the reports and correspondence reviewed for the Site through 2008 were provided to the MDE in the April 2010 SSR/SIW. All reporting and correspondence since 2008 have been submitted to the MDE as per the dates listed above. Therefore, additional copies of these reports have not been provided with this CAP.

4.3 Regulatory History

In 1992, following the completion of the August 1991 Preliminary Environmental Site Assessment and the subsequent observation of liquid-phase hydrocarbons (LPH) in monitoring wells at the Site, the MDE required the recovery of LPH through manual bailing. The former USTs at the Site (installed in 1979) were removed and replaced with a new tank system in 1997. In 2003, MDE again identified LPH in on-Site monitoring wells, and a soil boring program was completed by AEC.

In correspondence dated January 5, 2004, the MDE Oil Control Program indicated the following:

- A review of the preliminary environmental assessment report completed by Geomatrix in 1991 had been completed;
- LPH was identified on October 15, 1992 in Site monitoring well MW-005 (**Figure 16**); MDE had previously required that free product be manually bailed from the well;
- An inspector for the MDE visited the Site on August 15, 2003 and identified LPH in Site monitoring well MW-001 (**Figure 16**), and a copy of the inspector's report was forward to Alger Oil Company on August 18, 2003;
- The MDE received confirmation of receipt of the inspector's report from Alger Oil Company on September 9, 2003, which stated that corrective action would be completed by September 14, 2003; however, no confirmation of scheduled or completed activities had yet been received by the Department; and
- LPH that was identified in soil boring AE-B-002 (17 fbg) during AEC's subsurface investigation exceeded the Department's action levels (**Figure 16**).

In response to the aforementioned findings, the January 2004 MDE correspondence issued a Notice of Violation (NOV) for the Site, requiring that the following be performed:

- A complete hydrogeological study to define the vertical and lateral extent of

subsurface contamination;

- A risk assessment as outlined in the MDE's MEAT Guidance document; and
- Repair or replace and make accessible well caps with locks on existing on-Site monitoring wells.

Following this correspondence, on March 5, 2004 (and revised on May 26, 2004) React submitted a Hydrogeological Investigation/Work Plan for the Site. This document was approved by the Department on December 7, 2005. However, an NOV was later prepared by the MDE (on July 9, 2008) in reference to the Hydrogeological Investigation/Work Plan. Specifically, the MDE's NOV letter requested that a completed Site Conceptual Model (SCM) and Supplemental Work Plan (SWP) be completed in order to prepare a comprehensive Corrective Action Plan (CAP).

In response to this NOV, REPSG submitted a Site Assessment Report (SAR) on December 18, 2008. This SAR reviewed prior Site history and investigation activities, as well as discussed recent investigation activities conducted at the Site in order to address NOV concerns. This SAR assessed soil, groundwater, and drinking water at the Site, as well as drinking water at off-Site private residences located within the vicinity of the Site.

A Site Status Letter was issued by MDE on October 22, 2009 in response to the December 2008 SAR. This Site Status Letter requested that a *Subsurface Investigation Workplan* be submitted to address data gaps identified by the MDE in the SAR's Site Conceptual Model (SCM).

In response to this request, REPSG submitted a combined Site Status Report and Site Investigation Workplan (SSR/SIW) to the MDE on April 23, 2010. This SSR/SIW addressed the data gaps associated with the December 2008 SAR via the completion of additional groundwater and potable well sampling, both on-Site and off-Site. This reporting recommended the following: the completion of a geophysical survey via ground-penetrating radar; the completion of additional subsurface soil sampling; the installation of a nested shallow and deep groundwater monitoring well pair; and that soil vapor intrusion be investigated.

A Site Status Letter was then issued by MDE on July 30, 2010 in response to the April 2010 SSR/SIW submitted by REPSG, requested that a *Revised Subsurface Investigation Workplan* be submitted to address changes in the proposed scope of work as identified in the SSR/SIW. Specifically, the MDE requested the completion of a borehole geophysical survey of the on-Site drinking water well, and the relocation of several proposed soil borings, including temporary well points.

In response to this request, REPSG submitted a Revised Subsurface Investigation Workplan (SIW) to the MDE on August 27, 2010. This Revised SIW addressed all of the requests made by the MDE in the July 2010 Site Status Letter.

On December 21, 2010, REPSG submitted a Site Status Report (SSR) to the MDE which directly addressed the results of all the investigatory work as proposed within the Revised SIW, with the exception of the installation of the nested pair of deep and shallow groundwater monitoring wells. The installation of this pair of wells was completed on August 8, 201, following MDE approval of the selected locations for the wells.

Per the request of the MDE in correspondence dated April 20, 2011, an Active Remedial Technologies Report was completed on August 26, 2011 by REPSG. The Active Remedial Technologies Report provided an evaluation of active remedial technology methods that may be utilized to further remediate the groundwater contamination at the above-referenced Site. The April 2011 MDE correspondence, specifically requested that the pros, cons, and applicability of soil vapor extraction, oxygen release compounds, air sparging, and/or surfactant injection be evaluated. In addition, in-situ bioremediation was selected and discussed as a possible technology for use at the Site.

A Site Status letter was issued by MDE in response to the August 2011 Active Remedial Technologies Report, the March 2012 Formal Request for Sampling Revision Letter, and the March 2012 Groundwater and Drinking Water Results. The Active Remedial Technologies Report evaluated the applicability of various remedial strategies for the Site. The report concluded that based on known Site conditions and available information that a combination of a soil vapor extraction (SVE) and in-situ bioremediation were best equipped to address Site hydrogeology and contamination at the Site. However, a specific remediation strategy and timeline could not be determined at the time of this report without first obtaining data from the recently installed on-Site deep monitoring well (MW-008D). REPSG recommended the completion of several rounds of groundwater sampling from MW-008D prior to selecting an appropriate remediation method.

The MDE requested the submittal of a PTW following the completion of these additional rounds of groundwater sampling. A formal request for an extension to the deliverable date for this PTW from June 15, 2012 to July 31, 2012 was submitted on May 11, 2012 by REPSG, and granted approval by the MDE via email correspondence received on May 22, 2012.

In addition to the quarterly groundwater sampling conducted at the Site, REPSG recommended in a *Formal Request for Sampling Program Revision* letter, dated March 2, 2012, that discrete zone sampling be conducted at on-Site deep monitoring well MW-008D and off-Site drinking water well DW-005, located at 2802 North East Road prior to the completion of the PTW. This discrete zone sampling utilized inflatable “straddle” packers positioned in the wells above and below specific sampling intervals in order to allow for the isolation of a sampling interval of interest to assist in the collection of discrete zone samples. In email correspondence dated June 28, 2012, the MDE approved this discrete zone sampling following the submittal of a *Discrete Zone Sampling Methodology* letter dated May 25, 2012

On November 2, 2012, REPSG submitted a formal *Bench Test Workplan* for approval to the MDE. Permission for the requested Bench Test was denied by the MDE within correspondence dated December 4, 2012 and received by REPSG on December 7, 2012. This correspondence indicated that a full-scale Pilot test, as detailed in the July 30, 2012 *Pilot Test Workplan*, must be conducted at the Site. Prior to the implementation of this Pilot Test, however, the MDE requested that additional information be provided to the MDE for review by December 15, 2012. This additional information was provided to the MDE by REPSG in a *Letter in Response* to the MDE's on December 13, 2012.

An approval letter for the commencement of the Pilot Test at the Site, and requesting the completion of this CAP, was prepared by the MDE on January 8, 2013.

5.0 CONTINUING HYDROGEOLOGIC INVESTIGATION

To further evaluate and improve upon the Conceptual Site Model last updated in the July 2012 PTW, REPSG has conducted additional on-Site and off-Site groundwater and potable well sampling. These activities were performed to further characterize the hydrogeologic system at the Site and included the quarterly gauging and sampling of groundwater monitoring wells and the drinking water well located at the Site; as well as the monthly sampling of drinking water wells at two (2) off-Site residences. Detailed information regarding these activities is provided below.

5.1 Groundwater Sampling Events

Since the submittal of the July 2012 PTW, REPSG mobilized to the Site three (3) times to gauge and sample the full on-Site monitoring well network (MW-001, MW-001R, MW-002, MW-003, MW-003R, MW-005, MW-005R, MW-006, MW-007, MW-008, and MW-008D) along with the two (2) on-Site leak detection wells constructed within the gasoline tank field (MP-001 and MP-002)[4]. These sampling and gauging events occurred on: November 15-16, 2012 and March 7-8, 2013, and April 1-2, 2013[5], All groundwater samples collected were analyzed for VOCs plus MTBE and TBA via EPA method 8260, and TPH-DRO[6] and TPH-GRO via EPA method 8015D. Samples were submitted, packed on ice and under chain of custody, to Analytical Laboratory services, Inc. of Middletown, PA. All monitoring wells and measuring points were gauged and sampled via purge-method sampling. During all three (3) sampling events, purged water was drummed and stored at the Site, per the MDE's request. All drummed water will be removed and disposed of properly by a licensed disposal facility.

[4] The two (2) leak detection wells were only sampled and gauged during two (2) of the three (3) events, as both leak detection wells were dry during the November 15-16, 2012 event.

[5] The results of all groundwater sampling events conducted prior to November 15-16, 2013 have previously been supplied to the MDE in prior reporting and correspondence.

[6] Effective the first quarter of 2013, TPH-DRO and TPH-GRO have been removed from the on-Site groundwater monitoring program.

5.1.1 *Groundwater Sampling Results*

Results of the groundwater investigation laboratory analyses were compared against the applicable MDE VCP groundwater standards (see **Attachment 3**). The complete analytical laboratory reports are provided in **Attachment 5.**

Analysis results indicated the presence of TPH-DRO and TPH-GRO and VOC compound concentrations above the applicable MDE VCP groundwater standards in all samples analyzed for the compounds. Results of these groundwater sampling are presented in **Table 1**. Contaminant distribution maps for all three (3) groundwater sampling events showing compound concentrations above the applicable MDE VCP groundwater standards in groundwater at the Site are presented in **Figures 8, 9,** and **10** of **Attachment 1**.

Table 1 – Compounds with Concentrations above the MDE VCP GW Standards in Monitoring Wells

		Sample ID	*MW-001*	*MW-001*	*MW-001*	*MW-001R*	*MW-001R*	*MW-001R*
		Date	*11/15/2012*	*03/07/2013*	*04/02/2013*	*11/15/2012*	*03/07/2013*	*04/02/2013*
Compound	**MDE VCP**	**Unit**						
1,2-Dichloroethane	5	ug/l	**8.5**	3.9	ND	**114**	**141**	ND
Acetone	550	ug/l	ND	ND	ND	ND	ND	ND
Benzene	5	ug/l	**14500**	**9640**	**356**	**81.9**	**89.3**	**2890**
Diesel Range Organics (DRO)	47	ug/l	**2400**	NT	NT	**920**	NT	NT
Ethylbenzene	700	ug/l	**1590**	**872**	**2580**	12.3	ND	**1390**
Gasoline Range Organics (GRO)	47	ug/l	**19600**	NT	NT	**1080**	NT	NT
Methyl chloride	19	ug/l	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	20	ug/l	**27.8**	**23.7**	ND	**89**	**156**	15.6
Toluene	1000	ug/l	522	385	**20600**	59.5	ND	**14800**
Xylene (total)	10000	ug/l	2540	1530	**14600**	58.8	ND	7570
		Sample ID	*MW-002*	*MW-002*	*MW-002*	*MW-003*	*MW-003*	*MW-003*
		Date	*11/16/2012*	*03/07/2013*	*04/02/2013*	*11/15/2012*	*03/08/2013*	*04/01/2013*
Compound	**MDE VCP**	**Unit**						
1,2-Dichloroethane	5	ug/l	ND	ND	ND	ND	ND	ND
Acetone	550	ug/l	ND	ND	ND	105	126	0
Benzene	5	ug/l	**48.6**	**42.4**	**37.2**	**66.1**	**12.1**	**44.2**
Diesel Range Organics (DRO)	47	ug/l	**390**	NT	NT	**4200**	NT	NT
Ethylbenzene	700	ug/l	1.1	0.47	0.48	**1250**	322	637
Gasoline Range Organics (GRO)	47	ug/l	**180**	NT	NT	**19600**	NT	NT
Methyl chloride	19	ug/l	ND	ND	1.6	7.3	2.7	ND
Methyl tert-butyl ether	20	ug/l	17.6	18.8	17.9	7.2	2	5.9
Toluene	1000	ug/l	0.35	0	3.3	816	237	790
Xylene (total)	10000	ug/l	3.1	2.3	3.8	5910	1710	2900
		Sample ID	*MW-003R*	*MW-003R*	*MW-003R*	*MW-005*	*MW-005*	*MW-005*
		Date	*11/15/2012*	*03/08/2013*	*04/01/2013*	*11/15/2012*	*03/07/2013*	*04/02/2013*
Compound	**MDE VCP**	**Unit**						
1,2-Dichloroethane	5	ug/l	ND	ND	ND	ND	ND	ND

Acetone	550	ug/l	ND	ND	ND	**763**	ND	ND
Benzene	5	ug/l	**152**	**70.8**	**85.5**	**475**	**271**	**4620**
Diesel Range Organics (DRO)	47	ug/l	**1700**	NT	NT	**11200**	NT	NT
Ethylbenzene	700	ug/l	56.6	10	24	**2940**	**2490**	285
Gasoline Range Organics (GRO)	47	ug/l	2240	NT	NT	**133000**	NT	NT
Methyl chloride	19	ug/l	ND	7	ND	ND	122	ND
Methyl tert-butyl ether	20	ug/l	17	17.7	13	14	15.8	ND
Toluene	1000	ug/l	79.9	9	198	**12800**	**25400**	55.5
Xylene (total)	10000	ug/l	187	71.8	425	**14300**	**12700**	731
		Sample ID	*MW-005R*	*MW-005R*	*MW-005R*	*MW-006*	*MW-006*	*MW-006*
		Date	*11/15/2012*	*03/08/2013*	*04/02/2013*	*11/15/2012*	*03/07/2013*	*04/01/2013*
Compound	**MDE VCP**	**Unit**						
1,2-Dichloroethane	5	ug/l	ND	ND	ND	ND	ND	ND
Acetone	550	ug/l	387	ND	ND	ND	ND	ND
Benzene	5	ug/l	**8660**	**6000**	**178**	0.77	**23.9**	3.8
Diesel Range Organics (DRO)	47	ug/l	**9600**	NT	NT	**2100**	NT	NT
Ethylbenzene	700	ug/l	**2740**	**2150**	ND	14.1	6.6	21.7
Gasoline Range Organics (GRO)	47	ug/l	**140000**	NT	NT	**459**	NT	NT
Methyl chloride	19	ug/l	ND	**39.3**	ND	ND	ND	ND
Methyl tert-butyl ether	20	ug/l	8.7	13.4	146	2	1.5	1.1
Toluene	1000	ug/l	**26200**	**28500**	10.8	6.9	3	143
Xylene (total)	10000	ug/l	**15000**	**13000**	33	76.4	16	176
		Sample ID	*MW-007*	*MW-007*	*MW-007*	*MW-008*	*MW-008*	*MW-008*
		Date	*11/15/2012*	*03/07/2013*	*04/02/2013*	*11/16/2012*	*03/08/2013*	*04/02/2013*
Compound	**MDE VCP**	**Unit**						
1,2-Dichloroethane	5	ug/l	ND	ND	ND	ND	**6.5**	ND
Acetone	550	ug/l	ND	ND	ND	ND	ND	ND
Benzene	5	ug/l	**430**	**64.9**	3.2	**449**	**418**	**51**
Diesel Range Organics (DRO)	47	ug/l	**1300**	NT	NT	**1300**	NT	NT
Ethylbenzene	700	ug/l	421	211	17.7	197	139	6.2
Gasoline Range Organics (GRO)	47	ug/l	**14900**	NT	NT	**3470**	NT	NT
Methyl chloride	19	ug/l	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	20	ug/l	ND	ND	ND	**664**	**550**	**485**
Toluene	1000	ug/l	**3190**	423	97.3	20.5	11.9	5.1
Xylene (total)	10000	ug/l	1730	1080	212	41.1	30.9	9.1
		Sample ID	*MW-008D*	*MW-008D*	*MW-008D*	*MP-001*	*MP-001*	
		Date	*11/16/2012*	*03/07/2013*	*04/01/2013*	*03/08/2013*	*04/02/2013*	
Compound	**MDE VCP**	**Unit**						
1,2-Dichloroethane	5	ug/l	ND	ND	ND	ND	ND	
Acetone	550	ug/l	ND	ND	4.3	ND	366	
Benzene	5	ug/l	0.43	ND	0.37	**1230**	**673**	
Diesel Range Organics (DRO)	47	ug/l	**280**	NT	NT	NT	NT	
Ethylbenzene	700	ug/l	ND	ND	ND	57.2	28.5	
Gasoline Range Organics (GRO)	47	ug/l	ND	NT	NT	NT	NT	
Methyl chloride	19	ug/l	ND	ND	ND	**438**	ND	

Methyl tert-butyl ether	20	ug/l	0.75	0.55	0.49	**39.9**	7.3
Toluene	1000	ug/l	0.87	0.38	0.8	**3180**	**2830**
Xylene (total)	10000	ug/l	ND	ND	ND	948	873

		Sample ID	*MP-002*	*MP-002*
		Date	*03/08/2013*	*04/02/2013*
Compound	**MDE VCP**	**Unit**		
1,2-Dichloroethane	5	ug/l	ND	ND
Acetone	550	ug/l	ND	53.1
Benzene	5	ug/l	**357**	**400**
Diesel Range Organics (DRO)	47	ug/l	NT	NT
Ethylbenzene	700	ug/l	ND	9.8
Gasoline Range Organics (GRO)	47	ug/l	NT	NT
Methyl chloride	19	ug/l	**190**	ND
Methyl tert-butyl ether	20	ug/l	5.1	5.7
Toluene	1000	ug/l	**2180**	**2670**
Xylene (total)	10000	ug/l	186	492

*Exceedences of the regulatory standard are printed in **bold**. ND = Compound not detected above laboratory method detection limit. NT = Compound not tested on specified sampling date.

5.1.2 *Groundwater Gauging Information*

Depth to water information for each sampling event is presented in **Table 2** (see **Attachment 3**). Monitoring well and measuring point locations are shown in **Figure 3** of **Attachment 1**. No LPH was encountered in the monitoring wells or measuring points during any of the groundwater gauging and sampling events. REPSG's standard operating procedure for groundwater sampling is presented in **Attachment 4**.

Table 2 – Well Gauging Data

Date	Sample ID	MP Elevation	Groundwater Elevation (fbg)	Depth to Water (fbg)
11/15-16/2012	MW-001	416.3	396.3	20.04
	MW-001R	416.5	397.7	18.81
	MW-002	415.7	396.8	18.86
	MW-003	416.2	399.1	17.15
	MW-003R	416.3	399.4	16.92
	MW-005	416.9	398	18.92
	MW-005R	416.9	397.1	19.78
	MW-006	416.7	397.3	19.36
	MW-007	417.6	398.9	18.68
	MW-008	416.4	397	19.36
	MW-008D	416.5	399.3	17.25
03/07-08/2013	MW-001	416.3	396.6	19.7
	MW-001R	416.5	399.3	17.25
	MW-002	415.7	398.5	17.2
	MW-003	416.2	400.5	15.72
	MW-003R	416.3	400.8	15.45
	MW-005	416.9	399.4	17.45
	MW-005R	416.9	398.6	18.3
	MW-006	416.7	398.8	17.88

Date	Sample ID	MP Elevation	Groundwater Elevation (fbg)	Depth to Water (fbg)
	MW-007	417.6	400.7	16.88
	MW-008	416.4	397.9	18.51
	MW-008D	416.5	401	15.55
04/01-02/2013	MW-001	416.3	399.4	16.92
	MW-001R	416.5	400.1	16.39
	MW-002	415.7	399	16.66
	MW-003	416.2	401.3	14.95
	MW-003R	416.3	401.6	14.7
	MW-005	416.9	398.4	18.55
	MW-005R	416.9	400.4	16.55
	MW-006	416.7	399.5	17.2
	MW-007	417.6	401.4	16.21
	MW-008	416.4	399.9	16.56
	MW-008D	416.5	401.6	14.93

Groundwater elevation contours indicate groundwater flow generally in a south/southeast direction, and closely resemble the direction and shape of topographic contours in the area. Groundwater contour maps for all three (3) gauging events are provided as **Figures 4, 5,** and **7** in **Attachment 1**.

5.2 On-Site Potable Well Sampling

Since July 2012, REPSG has mobilized to the Site two (2) times (October 19, 2012 and January 30, 2013) to gauge and sample the on-Site potable well (DW-001). This potable well is actively used by the facility occupying the Site, and has an in-place carbon filtration system of its own. During the two (2) sampling events, the well was sampled at the pre-filtration stage (DW-001), mid-filtration stage (DW-001A), and the post-filtration stage (DW-001B). All samples were packaged directly into 40-milliliter HCL preserved VOA vials and 1-liter amber jars, as required by EPA Methods 524.2 and 8015B. REPSG's standard operating procedure for potable well sampling is presented in **Attachment 3**.

All purged water from DW-001 was filtered through a carbon filter to remove impurities before it was discarded. No LPH was encountered in the potable well at the time that the water sample was collected. The location of DW-001 at the Site is depicted in **Figure 3** of **Attachment 1**.

All drinking water samples collected were analyzed for the full suite[7] of drinking water VOCs plus TBA and MTBE via EPA method 524.2. The parameter list analyzed for drinking water includes all COCs that have been reported in Site groundwater. Samples were packed on ice and, under chain of custody, submitted to Analytical Laboratory services, Inc. of Middletown, PA.

[7] A complete list of all compounds analyzed for is included in the analytical lab reports provided in **Attachment 5**.

The results of the potable well investigation laboratory analyses were compared to the applicable Maximum Contaminant Levels (MCLs) established by the U.S Environmental Protection Agency (EPA) National Primary Drinking Water (DW) Standards[8], which are enforced in Maryland by the MDE's Safe Drinking Water Act Implementation Division.

Analysis results indicated the presence of MTBE at a concentration (29.5 ppb) above the applicable EPA DW standards (20 ppb) in one (1) sample (DW-001, pre-filtration) during the October 19, 2012 sampling event. Several compounds (including MTBE) were detected at levels above the laboratory reportable detection limits (RDL), but below the applicable EPA DW standards during the two (2) sampling events. All other analyzed constituents were not reported at concentrations above the laboratory detection limits. All RDLs were sufficiently below the standard to be considered valid regulatory data (see **Attachment 3**).

A complete table showing all tested parameters compared to the EPA DW standards is provided in **Attachment 3**. The complete analytical laboratory reports are provided in **Attachment 5.**

5.3 Residential Potable Well Sampling

In accordance with MDE directives, potable water samples were collected from the following residential potable wells eight (8) times since July 2012:

- 2794 North East Rd, North East, MD (Permit No. CE951470; identified herein as DW-004) on August 14, 2012, September 14, 2012, October 19, 2012, November 16, 2012, December 11, 2012, January 30, 2013, February 21, 2013, and March 8, 2013.
- 2802 North East Rd., North East, MD (Permit No. CE951499; identified herein as DW-005) on August 14, 2012, September 14, 2012, October 19, 2012, November 20, 2012, December 11, 2012, January 30, 2013, February 21, 2013, and March 8, 2013.

Both residences have been outfitted with a granular activated carbon (GAC) filtration system, as required by the MDE in their December 19, 2008 correspondence, for their potable well water. These systems, consisting of dual (primary and secondary) GAC units, were installed on December 8, 2008. In addition, because the refrigerators dispense ice and drinking water at both residences, they are also outfitted with carbon filtration systems. Currently, both residences are being provided with bottled water for drinking purposes.

The previously identified existence of volatile organic compounds in both off-Site wells for which no applicable EPA DW standard is available at concentrations above the laboratory MDL, indicated that the GAC filtration systems in place at both off-Site

[8] EPA National Primary Drinking Water Standards (as published on the EPA website).

residences have not been fully mitigating all potable water impacts. In an effort to determine when the carbon should be replaced, a totalizing flow meter has been installed on both systems to record the amount of water in use at each residence. REPSG has installed/replaced carbon in both systems on the dates indicated on **Table 3**. In addition, REPSG installed a Sentry I Open-Air volatilization system at both residences in May 2010[9]. This volatilization system is known to be highly effective and efficient at removing VOCs from water.

Table 3 – Potable Well Carbon Replacement Schedule

	Residence	
	2794 North East Rd. (O'Brien)	**2802 North East Rd. (Ginksi)**
Date of Carbon Change	12/8/2008 (Installed)	12/8/2008 (Installed)
	8/12/2010	9/15/2010
	5/27/2011	5/27/2011
	6/20/2011	6/20/2011
	7/25/2011	7/25/2011
	8/11/2011	8/11/2011
	9/20/2011	9/20/2011
	9/29/2011	9/29/2001
	10/14/2011	10/14/2011
	11/18/2011	11/18/2011
	12/8/2011	12/8/2011
	1/13/2012	1/13/2012
	2/22/2012	2/22/2012
	3/16/2012	3/16/2012
	4/20/2012	4/20/2012
	5/24/2012	5/24/2012
	6/20/2012	6/20/2012
	7/27/2012	8/14/2012
	8/14/2012	9/14/2012
	9/14/2012	10/19/2012
	10/19/2012	12/11/2012
	12/11/2012	1/30/2013
	1/30/2013	2/21/2013
	2/21/2013	3/8/2013
	3/8/2013	

For all eight (8) off-Site drinking water sampling events, samples from the off-Site potable wells were collected: pre-volatilization and pre-carbon filtration; post-volatilization and pre-carbon-filtration; post-volatilization and mid-carbon filtration; and post-volatilization and post-carbon filtration. The residential potable well samples collected, and their corresponding level of filtration, are identified in **Table 4**.

[9] The Sentry I system was removed from both residences in April 2013.

Table 4 – Potable Well Sample Level of Filtration

Sample ID	Level
DW-004C (2794 North East Rd.)	Pre-filtration
DW-004F (2794 North East Rd.)	Post-filtration (Vapor*), Pre-filtration (Carbon)
DW-004G (2794 North East Rd.)	Post-filtration (Vapor), Mid-filtration (Carbon)
DW-004H (2794 North East Rd.)	Post-filtration (Vapor and Carbon)
DW-005A (2802 North East Rd.)	Pre-filtration
DW-005F (2802 North East Rd.)	Post-filtration (Vapor), Pre-filtration (Carbon)
DW-005G (2802 North East Rd.)	Post-filtration (Vapor), Mid-filtration (Carbon)
DW-005H (2802 North East Rd.)	Post-filtration (Vapor and Carbon)

*The term "Vapor" is in reference t o the Sentry I system installed in 2010 at both residences.

All drinking water samples collected were analyzed for the full suite of drinking water VOCs plus TBA and MTBE via EPA method 524.2. The parameter list analyzed for drinking water includes all COCs that have been reported in Site groundwater. All samples were packaged directly into 40-milliliter HCL preserved VOA vials as required by EPA Methods 524.2. Samples were submitted, packed on ice and under chain of custody, to Analytical Laboratory services, Inc. of Middletown, PA. REPSG's standard operating procedure for potable well sampling is presented in **Attachment 4**.

The results of the potable well investigation laboratory analyses were compared to the applicable U.S EPA National Primary DW Standards, which are enforced in Maryland by the MDE's Safe Drinking Water Act Implementation Division.

Analysis results indicated the presence of the following compounds in concentrations above the applicable EPA DW standards: 1,1-dichloroethane and MTBE[10]. These compounds are presented in **Table 5,** below.

[10] Levels of 1,1-dichloroethane and MTBE above the applicable MDE VCP groundwater standards in on-Site potable well DW-001 have not been detected by REPSG during the course of the 2010 investigation. 1,1-dichloroethane is a known breakdown product of PCE, and has not been identified as a COC at the Site.

Table 5 – Compounds with Concentrations above the EPA DW standards in off-Site Potable Wells

		Compound	*1,2-Dichloroethane*	*Methyl tert-butyl ether*
		EPA DW Standard	*5*	*20*
		Unit	*ug/l*	*ug/l*
Sample Date	**Sample ID**	**Level of Filtration**		
08/14/2012	DW-004C	Pre-filtration	**7.5**	**330**
	DW-004F	Post-Vapor, Pre-Carbon	2	**85.3**
	DW-005A	Pre-filtration	**7.8**	**455**
	DW-005F	Post-Vapor, Pre-Carbon	ND	3.8
09/14/2012	DW-004C	Pre-filtration	**8.7**	**478**
	DW-004F	Post-Vapor, Pre-Carbon	1.6	**106**
	DW-005A	Pre-filtration	**8.8**	**538**
	DW-005F	Post-Vapor, Pre-Carbon	1.9	**118**
10/19/2012	DW-004C	Pre-filtration	**7.5**	**345**
	DW-004F	Post-Vapor, Pre-Carbon	1.3	**98.8**
	DW-005A	Pre-filtration	**5.6**	**401**
	DW-005F	Post-Vapor, Pre-Carbon	0.32	**36.2**
11/16/2012	DW-004C	Pre-filtration	**14.8**	**339**
	DW-004F	Post-Vapor, Pre-Carbon	1.1	**67.5**
11/20/2012	DW-005A	Pre-filtration	4	**281**
	DW-005F	Post-Vapor, Pre-Carbon	4.6	**270**
12/11/2012	DW-004C	Pre-filtration	**9.4**	**476**
	DW-004F	Post-Vapor, Pre-Carbon	1.3	**124**
	DW-005A	Pre-filtration	3.4	**351**
	DW-005F	Post-Vapor, Pre-Carbon	ND	**52.8**
01/30/2013	DW-004C	Pre-filtration	**8.6**	**350**
	DW-004F	Post-Vapor, Pre-Carbon	ND	**82.3**
	DW-005A	Pre-filtration	2.1	**174**
	DW-005F	Post-Vapor, Pre-Carbon	0.36	**43.6**
02/21/2013	DW-004C	Pre-filtration	**9.8**	**421**
	DW-004F	Post-Vapor, Pre-Carbon	1.8	**96.5**
	DW-005A	Pre-filtration	1.7	**169**
	DW-005F	Post-Vapor, Pre-Carbon	ND	**75.1**
03/08/2013	DW-004C	Pre-filtration	**10.2**	**458**
	DW-004F	Post-Vapor, Pre-Carbon	1.5	**106**
	DW-005A	Pre-filtration	1.5	**157**
	DW-005F	Post-Vapor, Pre-Carbon	1.5	**177**

*Exceedences of the regulatory standard are printed in **bold**. ND = Compound not detected above laboratory method detection limit.

Post-filtration samples collected from both residences did not demonstrate any compounds at concentrations above the EPA DW standards. Several compounds were detected at levels above the RDL, but below the applicable EPA DW standards. In addition, several compounds for which no applicable EPA DW standard is available were detected at levels above the RDL. All laboratory detection limits were sufficiently below the standard to be considered valid regulatory data. A complete table showing all tested parameters compared to the EPA DW standards is provided in **Attachment 3**. The analytical laboratory report is provided in **Attachment 5.**

6.0 SITE CONCEPTUAL MODEL

6.1 Source and Extent of Site Contamination

Soil Characterization

As identified in the December 2008 SAR, the source of on-Site petroleum impacts is most likely the historical releases of petroleum products from the former gasoline tanks previously located within the current gasoline UST field in the north central portion of the Site.

Based on a comparison of current and historical soil data against the applicable MDE VCP standards, the identified COCs[11] in soil at the Site are: 1,1,2-trichloroethane; 1,2-dibromoethane; 1,2-dichloroethane; benzene, ethylbenzene, toluene, MTBE, and total xylenes.

As discussed in the April 2010 SSR/SIW, soils from the original gasoline USTs (which were identified as contaminated on the tank closure form) were excavated and disposed during UST closure and replacement activities conducted in 1997. No documentation of these disposal receipts or of UST closure sampling was available with this document. REPSG conducted a file review in October 2008, and the case manager for the Site was contacted regarding the availability of this information, and no documentation was found.

As reported in the December 2010 Site Status Report Updated (SSR Update), the extent of these COCs at the Site has been delineated horizontally within the Site boundary to the north by sample B-003 and B-021, to the south by samples B-006 and B-012, and to the east by B-009. Horizontal delineation within the Site boundary to the west has been established for all COCs by boring B-022, with the exception of benzene. Benzene was reported at a concentration of 0.0021J mg/kg in sample B-022 (17-17.5'), slightly above the Protection of Groundwater standard of 0.0019 mg/kg, and well below the Non-Residential standard of 52 mg/kg.

The results of soil characterization indicate that the majority of petroleum-contaminated soil is located in a roughly circular-shaped area of approximately 7,850 square feet (sf), centered approximately 20 feet to the southeast of the current UST field, and approximately midway between monitoring wells MW-005 and MW-001 (see **Figure 13**). A smaller portion of this area contains the majority of the heavily contaminated soil, loosely defined as soil with benzene concentrations above 1 mg/kg and/or DRO concentrations above 1,000 mg/kg. This circular area has a radius of approximately 22 feet, and comprises an area of approximately 1,520 sf (see **Figure 13**). Soil contamination occurs, in general beginning at 8 to 10 fbg grade, and ending (or attenuating to much lower concentrations) at 17 to 24 fbg in the "inner" circular area, and occurs at approximately 14 to 23 fbg in the outer circular area. Based on these data,

[11] As methylene chloride is known to be a common laboratory contaminant, and was found at concentrations greater than the laboratory reporting value in laboratory conducted quality assurance and control (QA/QC), it has not been identified as a COC in soils at the Site.

REPSG calculates a total volume of approximately 2,540 cubic yards, or 3,800 tons, of soil to be treated with the proposed remediation system (see **Figure 13**).

Groundwater Characterization

As reported in the July 2012 Pilot Test Workplan, based on the groundwater characterizations that have been conducted within the full monitoring well network (MW-001, MW-001R, MW-002, MW-003, MW-003R, MW-005, MW-005R, MW-006, MW-007, MW-008, and MW-008D) at the Site, the following compounds continue to be compounds of concern (COCs) in Site groundwater:

- TPH-DRO; TPH-GRO; 1,1,2-trichloroethane; 1,2-dibromoethane; 1,2-dichloroethane; acetone; benzene; ethylbenzene; methyl chloride; methyl ethyl ketone (MEK); methyl tert-butyl ether (MTBE); naphthalene; tetrachloroethylene (PCE); toluene; and total xylenes.

Monitoring well MW-005, situated at the southeast corner of the gasoline UST field is located near the center of the source area. During the most recent quarterly groundwater sampling events (conducted prior to the Pilot Test on November 15-16, 2012 and March 7-8, 2013, and post the Pilot Test on April 1-2, 2013)[12], the following compounds were detected at concentrations above the applicable MDE Voluntary Cleanup Program (VCP) standards[13] within the on-Site well network:

- TPH-DRO[14]; TPH-GRO; 1,2-dichloroethane; benzene; ethylbenzene; methyl chloride; methyl tert-butyl ether (MTBE); toluene; and total xylenes

MW-005, MW-005R, MW-001R, and MW-008 have consistently maintained the highest concentrations of COCs during the groundwater Site investigations conducted by REPSG. No discernible decrease in compound concentrations has been noted during this time, however, the number of compounds present in concentrations above the applicable MDE VCPs has decreased during this third quarter 2012.

The solvent PCE, a non-petroleum related groundwater COC, is the only solvent detected during the regular quarterly groundwater characterization activities at the Site at concentrations above the applicable MDE VCP standards. Solvent trichloroethylene (TCE), a breakdown compound of PCE, has been detected in Site groundwater at concentrations below the applicable MDE VCP standards, but above the laboratory MDLs, during the regular quarterly groundwater characterization activities[15]. No other solvents were detected in Site groundwater at concentrations above the applicable MDE

[12] The results of all groundwater sampling events conducted prior to November 15-16, 2013 have previously been supplied to the MDE in prior reporting and correspondence.

[13] Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

[14] Effective the first quarter of 2013, TPH-DRO and TPH-GRO have been removed from the on-Site groundwater monitoring program.

[15] TCE was also detected within the groundwater sample collected on March 13, 2013 during the Pilot Test at a concentration above the MDE VCP GW standards. Information pertaining to these sampling results is provided in Section 9.5 of this report.

VCP standards. No solvents have been identified in Site soils at concentrations above the laboratory MDLs. The southernmost well, MW-006, has exhibited the only concentration of PCE above the applicable MDE VCP standards at the Site. PCE has not been detected at concentrations above the applicable MDE VCP standards in groundwater at the Site since November 2010. Based on Site soil investigations (which have not indicated the presence of PCE above MDE VCP standards) it does not appear that PCE has migrated into groundwater from on-Site conditions.

The source area of the petroleum related groundwater impacts at the Site appears to be the gasoline UST field located in the north- central portion of the Site, to the northwest of monitoring wells MW-005 and MW-005R. No on-Site sources for PCE in groundwater were identified. Compounds with concentrations above the applicable EPA DW standards (1,1-dichloroethane and MTBE) are present at two (2) of the off-Site potable wells (DW-004 and DW-005). While the source of these impacts has not yet been established, contaminant flow appears to be via the shallow aquifer in the unconsolidated residuum overlying bedrock, and not via the bedrock aquifer.

No discernible trend in concentrations of COCs in groundwater has yet been observed.

6.2 Liquid Phase Hydrocarbons

No LPH has been detected in any of the monitoring wells, measuring points, or potable well samples analyzed during the first quarter 2013, or at any other time since REPSG began groundwater monitoring at the Site in 2008.

The 1991 Geomatrix SAR identified LPH in the unsaturated zone and the capillary fringe. The specific location of this LPH occurrence at the Site was not noted within the reporting. No free product was found floating on the groundwater during Geomatrix's investigation. In October 1992, 0.75-inches of LPH was identified in MW-005 by Geomatrix, with subsequent gauging events revealing the continued presence of up to 6 inches of LPH in MW-005. Based on the presence of LPH, the MDE required the recovery of petroleum through manual bailing. In August 2003, the MDE identified 0.5-inches of LPH within MW-001. Supplemental investigations conducted in October 2003 revealed LPH in boring AE-B-002 at a depth of 17 fbg.

To date, manual hand bailing of the monitoring well network at the Site has resulted in minimal recovery of LPH. While some of the contaminant concentrations in groundwater samples are suggestive of LPH in the water column (based on the EPA's Online Tools for Site Assessment[16]) no LPH has been identified within the on-Site monitoring well network during the 2008 through 2013 Site investigation activities.

6.3 Specific Sensitive Receptors

Based on findings to date, sensitive receptors include on-Site workers and off-Site

[16] http://www.epa.gov/athens/learn2model/part-two/onsite/es.html

residential homeowners relying on well water for drinking purposes, and a local day care facility located to the east of the Site. A further evaluation of REPSG's findings is presented below.

For the December 2008 SAR a well search was conducted by REPSG in conjunction with the MDE for a one-half mile radius in the vicinity surrounding the Site. This well search indicated that within a one-half mile radius of the Site there are: 38 drinking water wells (used for either public or home use); three (3) industrial, commercial state, or federal use wells; and one (1) farm use well (for livestock watering and agricultural irrigation). Three (3) of the 28 drinking water wells and one (1) of the industrial wells are located within 500 feet of the Site. Two (2) of the drinking water wells (located at 2794 and 2802 North East Rd.) and one (1) of the industrial wells are located within 1,000 feet of the Site. All other wells are located between 1,000 feet and a half mile radius of the Site. Well construction details and location documentation was provided in the December 2008 SAR. Both of the off-Site potable wells are currently being monitored by REPSG. Additionally, there is one (1) on-Site potable well (DW-0001) located to the west of the structure at the Site. Both of the off-Site potable wells are currently being monitored by REPSG. More information regarding the two (2) off-Site potable wells is provided in **Section 5.2** of this report.

The presence of potable wells at these residences provides an open pathway to Site groundwater contamination via ingestion. These residential properties represent potential sensitive receptors.

An at-home day care facility (license No. 155668 for Cecil County, Region 11, and known as "Cammie Ginski") is located at 2802 North East Road. This day care facility is licensed for up to ten (10) children, and is located east of the Site. The day care facility is housed within one of the residences currently included in REPSG's off-Site potable well monitoring program (see **Figure 3** in **Attachment 1**). Due to its proximity to the Site, and its inclusion in off-Site potable well monitoring, this day care facility presents a potential sensitive receptor for Site groundwater contamination.

6.4 Current and Future Use of Impacted Groundwater

On-Site and off-Site groundwater within a half-mile radius is used for public consumption via potable wells. As shown in the potable well results sections of this report (**Sections 8.3** and **8.4**), petroleum impacts (in the form of MTBE) to the groundwater at the Site were most recently identified in the pre-filtration (DW-001) potable well sample on October 19, 2012. Based on currently available data, groundwater from the Site appears to flow towards the southeast; two (2) residential wells located approximately 258 feet to the east of the Site are known to be contaminated with petroleum hydrocarbons. Currently, residents of these two (2) locations are being provided with bottled water and both have had GAC filtration systems and Sentry I

Open-Air volatilization systems installed. REPSG has confirmed with the Cecil County Department of Public Works Water Division that no public water is available within the area.

6.5 Migration of Contamination

6.5.1 *Contaminant Fate*

The contaminant fate characteristics of each COC in soil and groundwater are as follows:

- 1,1,2-Trichloroethane is a colorless, sweet-smelling liquid, used as a solvent that does not burn easily, can be dissolved in water, and evaporates easily. It primarily evaporates when released into water with little of the chemical lost by adsorption to sediment or by biodegradation.
- Acetone is a colorless liquid, with a distinct smell and taste, that evaporates easily, is flammable, and dissolves in water. It is used to make plastic, fibers, drugs, and other chemicals. It is also used to dissolve other substances. Acetone is highly water soluble.
- Benzene is a colorless, aromatic, highly flammable liquid widely used in the United States in the production of other chemicals and materials and is a natural component of gasoline and crude oil. It can move from water and soil into air, however, due to reactions with other airborne chemicals, it breaks down within a few days. Benzene has low to moderate solubility in water. Benzene has high to very high mobility in soil.
- Toluene is a clear, colorless, aromatic liquid often produced during the process of making gasoline and other fuels from crude oil. It has low solubility in water, and high to very high mobility in soil.
- Ethylbenzene is a colorless, flammable liquid, with an odor similar to gasoline, found in petroleum and coal tar. It has low solubility in water and moderate mobility in soil.
- MTBE is a flammable liquid with a distinctive odor; it is often used as an additive in unleaded gasoline. It evaporates quickly from surface water, and so is commonly found as a vapor in the air. It biodegrades very slowly, and is highly soluble in water and is very mobile. MTBE does not easily adsorb onto soil or organic carbon therefore the retardation or slowing of MTBE movement in ground water is minimal. It is slow to volatilize and is not readily strippable by conventional stripping methods. Taste and odor thresholds for MTBE are very low, taste and odor can be detected at approximately 30 ppb.
- Naphthalene is a white solid that evaporates easily that is found in petroleum and coal fuels. It is also referred to as white tar, and tar camphor, and has been used

in mothballs and moth flakes. The burning of tobacco or wood also produces naphthalene. It has a strong, but not unpleasant smell. The major commercial use of naphthalene is in the manufacture of polyvinyl chloride (PVC) plastics. Its major consumer use is in moth repellents and toilet deodorant blocks. Naphthalene has low solubility in water and may be lost from soil through evaporation, volatilization, and biodegradation.

- PCE is a sweet-smelling, non-flammable manufactured liquid used for dry cleaning and metal degreasing that evaporates quickly from surface water into the air. PCE has low solubility in water and has moderate to high mobility in soil.
- Xylenes are a colorless, sweet-smelling and flammable liquid, which are commonly used in paint, paint thinners, and in gasoline. They quickly evaporate from soil and surface water into the air, and will dissolve in water through soil, and enter into groundwater.
- 1,2-Dibromoethane is a colorless liquid with a mild, sweet odor that has been used as a pesticide in soil, and on citrus, vegetable, and grain crops (this use was mostly stopped in 1984 by the EPA). It was also previously used as an additive in leaded gasoline. Current uses include treatment of logs for termites and beetles, control of moths in beehives, and as a preparation for dyes and waxes. It has high solubility in water and high to very high mobility in soil.
- 1,2-Dichloroethane is a manufactured, clear sweet-smelling and pleasant tasting liquid used in the production of vinyl chloride and as a leaded gasoline additive. 1,2-Dichloroethane breaks down slowly in water, and easily evaporates into the air.[17]

6.5.2 *Migration of Contaminants in Soil to Groundwater*

The COCs characteristically have high potential to migrate in soil or leach from soil into groundwater. Site-specific fine-grained soils are only moderately favorable for migration. However, the presence of 1,2-dibromoethane, 1,2-dichloroethane, benzene, ethylbenzene, MTBE, toluene, and total xylenes (soil COCs) in multiple monitoring wells at the Site, verifies that migration of contaminants from soil to groundwater has occurred. Due to the localized nature of 1,1,2-trichloroethane in soils (at B-008 in 2008), and the absence of 1,1,2-trichloroethane in groundwater above laboratory MDLs, under existing geochemical conditions future migration of this compound from soil to groundwater is not likely.

[17] Information on contaminant fate provided by the Agency for Toxic Substances and Disease Registry Division of Toxicology and Environmental Medicine's website: http://www.atsdr.cdc.gov/

6.5.3 *Migration of Contaminants in Groundwater*

Site analytical data indicates significant variation over time in COC concentrations at the Site within individual wells. However, the monitoring wells at the Site located within the immediate vicinity of the suspected source area, the gasoline UST field, demonstrate overall higher levels of Site COCs than the most downgradient well (MW-002) located at the Site.

The absence of COCs in the on-Site potable well (with the exception of 1,2-dichloroethane, which was identified in a pre-filtration sample collected on August 14, 2008 and MTBE, which has been identified in pre-filtration samples collected on August 14, 2008, November 29, 2010, October 14, 2011, January 13, 2012, and October 19, 2012 at concentrations above the applicable EPA DW standards) situated to the southwest of the tank field at the Site, and the presence of COCs impacts in off-Site residential potable wells located east of the Site, is likely due to groundwater directional flow at the Site. Based on review of water elevations in groundwater monitoring wells at the Site, as calculated from measurements obtained during the most recent groundwater events, shallow groundwater at the Site is estimated to flow in a direction varying from easterly to southerly. It is not known whether variations in groundwater flow directions may be attributable to pumping in nearby potable wells, seasonal variations, or other factors.

6.5.4 *Volatilization of Contaminants in Soil and Groundwater*

The soil vapor intrusion pathway was previously evaluated by screening volatile soil and groundwater compounds using the Johnson & Ettinger[18] model (J & E model) as required within the MDE VCP Guidance Document (Revision Date: 3/17/2006). The screening indicated that the combined soil plus groundwater incremental risk of vapor intrusion presents a potential risk to indoor air for the following compounds: 1,1,2-trichloroethane, 1,2-dichloroethane, 1,2-dibromorethane, acetone, benzene, ethylbenzene, methyl ethyl ketone, MTBE, PCE, and toluene. Specific information regarding the Site-specific use of the J& E model was provided in the April 2010 SSR/SIW.

6.5.5 *Quantification of Vapor Exposure Risk*

The quantification of exposure is expressed as the amount of a substance which is available to the receptor, known as the exposure point concentration. For this Site-specific risk assessment, the exposure point concentrations are the levels of the Site's vapor-phase compounds of concern that could migrate from subslab soils and groundwater into the indoor air space of the on-Site and off-Site buildings.

Indoor air models such as the J&E model are valuable screening tools for estimating the human health risks for the migration of volatile compounds from soil and groundwater

[18] EPA OSWER *Draft Guidance for Evaluation of the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance, November 29, 2002).*

into an indoor air space. The MDE VCP Guidance Document (Revision Date: 3/17/2006) recommends using the J&E model to evaluate the potential for vapor intrusion. This model incorporates convective and diffusive mechanisms to allow for the estimation of the transport of contaminant vapors emitting from subsurface soils and/or groundwater into indoor spaces. This model uses input values which are inherently conservative and that include parameters such as: soil type, depth to groundwater, depth from receptor, and chemical properties of the contaminants detected in the subsurface. A Quantification of Vapor Exposure Risk was conducted for the December 2010 Site Status Report.

Specific information regarding the Quantification of Vapor Exposure Risk was provided in the December 2010 Site Status Report. In summary, the results of the non-residential, on-Site models indicated that the following VOC concentrations present in soil and groundwater present an on-Site cumulative incremental risk above the EPA-determined level for carcinogens and the EPA-determined target hazard quotient for non-carcinogens. These compounds included: 1,2-dichloroethane, 1,2-dibromorethane, acetone, benzene, ethylbenzene, naphthalene, MTBE, PCE, and toluene. The compounds primarily driving the human health risk at the Site in soil and groundwater are benzene, 1,2-dibromomethane, and 1,2-dichloroethane.

The results of the residential, off-Site models indicated that the VOC concentrations present in groundwater present an off-Site cumulative incremental risk below the EPA-determined level for carcinogens and below the EPA-determined target hazard quotient for non-carcinogens. These compounds include: acetone, benzene, ethylbenzene, MTBE, and toluene. The compounds primarily driving the human health risk at the Site in soil and groundwater are benzene and toluene.

Specific information regarding the Quantification of Vapor Exposure Risk was provided in the December 2010 Site Status Report.

6.5.6 *Human Exposure*

Soil Contact Pathway

The Site is completely developed and is currently comprised of a convenience store and retail gasoline service station. Current land use is commercial and the Site is currently completely capped with either pavement or landscaping; there are no proposed changes to land use. The Site Assessment has determined that with the cap in place, the direct contact exposure routes from Site soils to potential receptors are incomplete.

Human receptors to on-Site soil contamination will occur only if construction or utility work is performed on-Site. A Site-Specific Health and Safety Plan and best management practices should be implemented during activities conducted in these areas to prevent exposure to Site contaminants by dermal sorption, ingestion or inhalation.

Groundwater Pathway

The direction of shallow groundwater flow at the Site is generally towards the southeast,

based on water levels measured in wells at the Site during the course of the groundwater investigation conducted by REPSG since 2008. Depth to groundwater during the most recent round of groundwater gauging and sampling conducted at the Site prior to the initiation of the Pilot Test on March 7-8, 2013 was demonstrated to range from 15.45 fbg (in MW-003R) to 19.70 fbg (in MW-001).

Exposure to human receptors to on-Site groundwater contamination will occur if construction or utility work is performed on-Site at depths greater than approximately 10 fbg. A Site-Specific Health and Safety Plan and best management practices should be implemented during activities conducted in these areas to prevent exposure to Site contaminants by dermal sorption, ingestion or inhalation. Additionally, an open pathway to groundwater via a potable well (DW-001) is present. During the course of this investigation, results from the on-Site potable well did not report any concentrations above the applicable EPA DW standards; however previously conducted investigations (most recently those conducted in March and December 2008, as conducted by AEC) have shown impacts to this well. Potable water obtained at the Site from this well is purified through a carbon filtration system prior to consumption, closing the pathway to on-Site receptors via ingestion. Water obtained at off-Site receptors is also purified through a carbon filtration system prior to use, and bottled water is currently being supplied to off-Site receptors for consumption, closing the pathway to on-Site receptors via ingestion.

Vapor Intrusion and Indoor Air Pathway
As previously discussed, the potential for volatilization of Site COCs from soil and groundwater impacts exists. Due to the presence of potable wells and unknown utilities, which can serve as preferential pathways, the vapor intrusion pathway to on-Site and off-Site structures within is potentially complete.

6.5.7 *Environmental Ecological Exposure*

No wetlands or surface water bodies are present on-Site. Currently available data do not indicate any wetlands or surface water bodies located within the identified contaminant plume extent. The additional groundwater monitoring activities (to include the installation of a nested pair of deep/shallow monitoring wells) proposed in the August 2010 SIW are intended to address this data gap.

6.5.8 *Impact to Utilities and Other Buried Services*

The majority of the electrical services to the on-Site structure are aboveground, with the exception of one electrical line that runs from the building and up a service pole at the rear of the structure. A private septic tank system is located off the southwest side of the convenience store structure at the Site for sewage disposal. No leach field is associated with this system. There is currently no public water service to the Site; the Site is supplied water by the on-Site potable well (DW-001). Piping associated with the USTs at

the Site is situated underground towards the front of the store.

6.5.9 *Other Sensitive Receptors*

An at-home day care facility is located at 2802 North East Road, located east of the Site and within one of the residence's currently included within REPSG off-Site potable well monitoring. No other sensitive receptors such as surface water, historic structures, or subways are located within the vicinity of the area. The nearest body of permanent surface water is located 1,695 feet southwest of the Site.

7.0 OBJECTIVES OF CORRECTIVE ACTION

The results of the extensive characterization of the Site indicate that soil and groundwater at the site are contaminated with dissolved and residual phase petroleum hydrocarbons (the "Site COC")in soil and groundwater, at levels above MDE cleanup standards. The SCM concludes that the historical operations related to the former petroleum USTs located in or near the current gasoline tank field are the source of the petroleum contaminants. The SCM further concludes that contaminants are likely transported off-Site in groundwater, and present potentially completed exposure pathways to off-Site receptors.

Based on these data, and based on MDE's directives to the responsible parties, Country Stores, Inc. presents the following evaluation of the active remediation technology selected for pilot testing at the Site. REPSG has identified the following objectives, in order to guide the screening, selection, and design of a site remediation system:

a. To identify a robust technology to aggressively remove contaminant mass, and reduce COC concentrations in soil and groundwater, particularly in the source area;

b. To reduce and then terminate offsite migration of site COC, to the extent practicable;

c. To effect containment of the groundwater plume, by using hydraulic measures to effect groundwater capture; and

d. To remediate by actively removing contaminants and by enhancing naturally occurring biodegradation of COC.

The following sections describe the methodologies used, and the results and conclusions of REPSG's screening for, selection of, and site pilot testing of, a remedial technology to achieve these objectives. The final section describes the site-specific design for the selected technology.

8.0 INITIAL ACTIVE REMEDIATION FEASIBILITY SCREENING

8.1 Desktop Screening

REPSG compared known Site conditions including contaminant chemistry, lithological and hydrogeological features, etc., to literature descriptions of suitable conditions for feasibility of vapor-phase extraction technologies. The parameters considered and conclusions regarding technology suitability are summarized in **Table 6**, below.

Table 6 – Results of Desktop Screening

Parameter	Site Condition	Suitability for DPE – Positive or Negative indication
Soil grain size	Fine-grained soils: sandy and clayey silts, but not dense clays.	Slightly positive, but indicates need for pilot testing.
Soil structure	No impermeable layers in the treatment zone	Positive.
Depth to water	> 15 fbg	Positive. Sufficient depth interval of unsaturated zone to distribute vacuum and air flow.
Depth intervals of source area	Approximately 8 to 23 fbg.	Positive. Sufficient depth interval to distribute vacuum and air flow. Shallowest contaminants are deep enough so that short-circuiting of extraction wells is an unlikely issue
Volatility of contaminants	High volatility and vapor pressures for all petroleum-related VOC COCs. Henry's Law constants > 100 atm.	Positive.

8.2 Soil Chemical Analytical and Geotechnical Data

REPSG collected two undisturbed soil samples from the treatment area on March 7-8, 2013. The samples were collected with Shelby tubes, driven by a direct-push rig, in the boring completed for the construction of vapor monitoring point VMP-002, from depth intervals of 13 to 15 fbg and 20 to 22 fbg, respectively. The location of boring VMP-002 is shown on **Figure 11** in **Attachment 1**.

The samples were analyzed for a list of chemical analyses related to bioremediation conditions, and a list of geotechnical parameters related to feasibility of soil vapor extraction technologies. Chemical analysis included VOCs plus a forward library search via EPA Method 8260B, as well as TPH-DRO and TPH-GRO via EPA Method 8015B. Chemical analysis samples were packaged directly into 'encore'-type samplers and unpreserved eight-ounce jars, as required by the EPA methods. Samples were submitted, packed on ice and under chain of custody, to Test America, Inc. in King of Prussia, PA.

The results of the soil chemical analyses were compared against the applicable MDE VCP soil standards[19] for both Non-Residential and Protection of Groundwater (PGW)

[19] Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Cleanup Standards For Soil And

exposure scenarios (see **Attachment 2**).

Analytical results indicate the presence of the VOCs benzene and total xylenes in both samples at concentrations above one the applicable MDE VCP PGW standards. These results are summarized in **Table 7**. The complete analytical laboratory reports are provided in **Attachment 5.**

Table 7 – Compounds with Concentrations above the MDE VCP PGW Standards in Soils

		Sample ID	*VMP-001*	*VMP-003*
		Depth (ft)	*9.5-10*	*9.5-10*
Compound	**Protection of Groundwater Standard**	**Unit**		
Benzene	0.0019	mg/kg	**0.72**	**5.5**
Xylene (total)	3	mg/kg	**38**	**11**

*Exceedences of the regulatory standard are printed in **bold**.

The list of geotechnical analytical parameters and the results of analyses, are presented in **Table 8**. The complete analytical laboratory reports are provided in **Attachment 5.**

Groundwater (June 2008), Interim Final Guidance, Tables 1 and 2 - Generic Numeric Cleanup Standards for Soil, Non-Residential and Protection of Groundwater Standards.

Table 8 – Results of Geotechnical Analysis

Geotechnical Analysis Performed	Sample ID	*VMP-002*	
	Depth (ft)	*13-15*	*20-22*
	Units		
DENSITY	g/cc	1.14	1.22
POROSITY	%	60.9	55.9
VOID RATIO	NA	1.6	1.3
SPECIFIC GRAVITY	NA	2.91	2.76
FRACTIONAL ORGANIC CARBON	%	3.3	3.4
SIEVE, 75000 MICRONS, PERCENT PASSING	% passed	100	100
SIEVE, 50000 MICRONS, PERCENT PASSING	% passed	100	100
SIEVE, 37500 MICRONS, PERCENT PASSING	% passed	100	100
SIEVE, 25000 MICRONS, PERCENT PASSING	% passed	100	100
SIEVE, 19000 MICRONS, PERCENT PASSING	% passed	100	100
SIEVE, 9500 MICRONS, PERCENT PASSING	% passed	100	100
SIEVE NO. 4, PERCENT PASSING	% passed	100	100
SIEVE NO. 10, PERCENT PASSING	% passed	99.8	99.5
SIEVE, NO. 20, PERCENT PASSING	% passed	96.4	96.4
SIEVE NO. 40, PERCENT PASSING	% passed	89.9	89.5
SIEVE, NO. 60, PERCENT PASSING	% passed	83.9	80.4
SIEVE NO. 80, PERCENT PASSING	% passed	78.1	70.3
SIEVE, NO. 100, PERCENT PASSING	% passed	73.8	63.5
SIEVE NO. 200, PERCENT PASSING	% passed	53.7	44.1
HYDROMETER, READING 1, PERCENT PASSING	% passed	30.3	25.8
HYDROMETER, READING 2, PERCENT PASSING	% passed	22.6	19.5
HYDROMETER, READING 3, PERCENT PASSING	% passed	14.9	13.3
HYDROMETER, READING 4, PERCENT PASSING	% passed	10.6	9.9
HYDROMETER, READING 5, PERCENT PASSING	% passed	7.2	7
HYDROMETER, READING 6, PERCENT PASSING	% passed	3.6	2.9
GRAVEL	%	0	0
SAND	%	46.3	55.9
COARSE SAND	%	0.2	0.5
MEDIUM SAND	%	9.9	10
FINE SAND	%	36.2	45.4
SILT	%	46.6	37.1
CLAY	%	7.2	7
NITROGEN, KJELDAHL, TOTAL (AS N)	mg/kg	1	ND
NITRATE + NITRITE	mg/kg	ND	ND

The results of analyses suggested the following regarding site conditions relative to suitability of DPE:

- Porosity is high, over 50 in both samples, potentially suggesting fine-grained particle sizes, a factor contraindicating the suitability of the DPE technology.
- A soil moisture content of 35% or lower was selected as the criteria which would indicate that soil moisture would not prevent sufficient soil vapor flow through the formation. Soil moisture was reported at 20 and 26%, respectively, in the two samples; the criteria is met.

- The bulk density of the two samples, 1.14 and 1.22, are typical of a soft clay, and not a positive indicator for DPE suitability.
- Fractional Organic Compound content reported in the two samples is relatively high at 3.2 and 3.4 percent, indicating potential resistance of VOCs in residual or adsorbed phase to volatilization by applied vacuum.
- Grain size analyses that both samples are a roughly equal mix of sand and silt-sized particles, both with approximately 7% clay-sized particles. The results of grain size analyses are a positive indicator for the feasibility of DPE.
- Very low to non-detected concentrations of nitrogen as TKN and nitrate, suggest low levels of bioremediation activity in the treatment area. It may be anticipated that increased oxygen levels supplied by the air flow created by the DPE system will increase bioactivity.

8.3 Summary of Preliminary Screening

Based on the initial Feasibility Screening and the Site-specific Geotechnical and Bioremediation analyses, REPSG concluded that both the vapor extraction and DPE technologies were feasible at the Site, and worthy of further evaluation. There were, however, sufficient neutral to negative indicators of the feasibility of these technologies, so that performance of a full scale pilot test was strongly suggested.

Based on that conclusion, REPSG designed a full-scale pilot test in consultation with the MDE, and prepared a PTW dated July 31, 2012 as well as REPSG's Letter in Response to the MDE's Request for Additional Pilot Test Information, Dated December 13, 2012. The PTW was subsequently approved by the MDE in correspondence dated January 8, 2013. The execution of that pilot test and the results thereof are presented in **Sections 9** and **10**.

9.0 PILOT TEST PROCEDURES

On March 13, 2013, REPSG performed a full-scale Dual-Phase Extraction (DPE) Single-Well Pilot Test at the Site. The pilot test was performed in accordance with REPSG's approved PTW.

The purpose of the pilot test was to collect data sufficient to determine if DPE is likely to be a feasible technology to perform source area contaminant mass removal at this Site, and whether or not it should be considered favorably for full-scale implementation at the Site. Information pertaining to the specifics of the DPE Pilot Test conducted at the Site is included in **Sections 9.1** through **9.4**, below.

9.1 Description of Evaluated Remedial Technology: Dual-Phase Extraction[20]

DPE (also referred to as Multi-phase Extraction, or Bioslurping) is an in-situ technology that employs pumping systems to extract VOCs (primarily) from the subsurface in the various phase in which the VOCs occur: as soil gases, dissolved in groundwater, and as LPH. When successful in removing LPH – the source of ongoing dissolved contaminants in groundwater – DPE reduces concentrations of dissolved petroleum hydrocarbons in both the unsaturated and saturated subsurface zones.

While DPE technologies can generally be divided into two categories, depending on whether subsurface liquids and soil vapor are extracted together or whether the subsurface liquids and soil vapor are extracted separately using two or more pumps, for the purposes of this pilot test, the DPE technology that was utilized at the Site during the pilot test was a single-pump system that extracts subsurface liquids and soil vapor simultaneously.

9.2 Pilot Test Objectives

The purpose of the pilot test was to collect data sufficient to determine if DPE is likely to be a feasible technology to perform source area contaminant mass removal at this Site, and whether or not it should be considered favorably for full-scale implementation at the Site.

The objectives of the pilot test were to:

- Determine the radius of influence (ROI) within which significant vacuum and soil vapor flow could be induced in the treatment zone under various extraction parameters (for the purpose pilot test evaluation, REPSG considers “significant vacuum” to be an effect of 1 in H_20 at the monitoring point);
- Accumulate performance data in order to determine optimal remedial technology design considerations such as soil vapor recovery well spacing and design, vapor flow rates (cfm), and soil vapor vacuum pressures (in Hg);
- Determine the appropriate methods of treating recovered soil vapors and contaminated fluids from the final implemented remedial system;
- Estimate expected contaminant mass removal rates; and
- Determine shutdown criteria for a final full scale system.

[20] Information gathered by the EPA (http://www.epa.gov/oust/pubs/tum_ch11.pdf and http://www.epa.gov/oust/cat/dualphas.htm), AEC (http://www.clu-in.org/download/techfocus/mpe/MPE-Royal-Farms-96-2011.pdf), and the MDE (http://www.mde.state.md.us/programs/Land/MarylandBrownfieldVCP/ERRP_Superfund/Documents/COA%20IM%20Work%20Plan%20Rev%203.pdf).

9.3 Components of Pilot Test System

The pilot test system consisted of the following major components:

- A mobile DPE pilot test unit;
- An extraction well;
- Vacuum monitoring points (VMPs); and
- Monitoring and miscellaneous instruments.

Figure 11 presents a schematic layout of the major pilot test system components.

9.3.1 Mobile DVE Pilot Test Unit

A mobile skid-mounted DPE pilot testing unit was supplied by Remediation Equipment & Services (RES) of Royersford, Pennsylvania for the pilot test. RES also assisted with pilot test operations. The pilot testing unit included the following components and specifications:

- A high-vacuum, 5-HP rotary pump manufactured by Hyundai, capable of inducing 100 actual cubic feet per minute (acfm) at 22 inches of Hg vacuum;
- Water knockout system, including water level-actuated system to pump water into off-unit frac tanks (for off-Site disposal at the conclusion of testing);
- Vapor and liquid flow and pressure gauges and totalizers;
- Sampling ports to collect vapor and liquid samples; and
- An off-unit vapor discharge treatment system, including two (2) 400-lb vapor phase Granular Activated Carbon treatment units, connected in series.
- Piping, Well Cap and Drop Tube for single Well extraction
- Power was supplied by a three-phase diesel generator.

9.3.2 Extraction Well

Monitoring well MW-005R was used as the pilot test extraction well. MW-005R is located approximately 10 feet from the southeast corner of the gasoline UST field and is considered to be near the center of the contaminant source area. The well is constructed of 4-inch diameter PVC materials to a total depth of 25 fbg, and is screened from approximately 10 to 25 fbg. A soil boring log and well construction log are provided in **Attachment 2**.

9.3.3 Vacuum Monitoring Points

REPSG measured vacuum readings at 10 selected monitoring points in the vicinity of the extraction well. The monitoring points were located in various directions from the extraction well and at distance of from approximately 5 to 50 feet from the extraction well. The 10 vacuum monitoring points are described as follows:

- Four (4) new vapor monitoring points (VMP-001 through VMP-004) located at

distances of 5, 10 feet, 15, and 20 feet from the extraction well along 2 perpendicular axes, radiating from the extraction well towards the North East and southeast. These VMPs were installed in February 2013, constructed of 1-inch PVC materials, and screened from approximately 5 fbg to a depth of 25 fbg.

- Wells MW-001R, MW-003R, MW-007, MW-008, all constructed as shallow groundwater monitoring wells.
- MP-001 and MP-002, constructed as UST tank field monitoring wells.

Each of the monitored points was outfitted with a cap containing a vacuum sampling port prior to each measurement.

9.3.4 Monitoring & Miscellaneous Instruments

The pilot test system also consisted of non-major components, such as monitoring instruments, sample collection equipment and supplies, health and safety monitoring equipment and personal protective equipment (PPE) supplies.

9.4 Pilot Test Procedures

The pilot test was designed to operate for 8 to 12 hours, with one or more adjustments in system operating conditions during the course of the testing.

9.4.1 Baseline Measurements

Baseline data were collected prior to the start of the test. Baseline measurements, presented in **Tables 2, 9,** and **12** included:

a. Water levels from Site-wide groundwater monitoring wells.

b. Headspace VOC levels in the extraction well, and the five vapor monitoring locations.

9.4.2 Setup

The major components of the pilot test system were installed on the site, plumbed together and, and tested on March 12, 2013. The pump of the pilot testing unit was securely connected to extraction well MW-005R via above-ground tubing. The above-ground tubing was connected to a drop tube installed inside the extraction well to a depth of approximately 0.5 feet above the static water level.

The work area was secured with appropriate barriers and signage to prevent public access to the area during testing. A health and safety briefing was conducted for all pilot test on-Site personnel.

9.4.3 Startup

The pumping system was started, and the vacuum applied to the extraction well was increased over the course of several minutes, by closing of a ambient air inlet valve, to

full system capacity. The system was run at full capacity vacuum level for the duration of the pilot test. System performance was monitored through the duration of the pilot test, as described in **Sections 9.4.4** and 9**.4.5**, below.

9.4.4 Operations

The pumping system was started and the vacuum applied to the extraction well was increased over the course of several minutes to the maximum capacity of the system. The level of vacuum to the pump was regulated by the application of an intake of ambient/dilution air to the system. Various operating parameters of the pumping system and the monitoring points were monitored and recorded during the test, as described herein, in order to provide data regarding the effectiveness of the technology at the Site.

The performance parameters described below were measured at each of the 10 monitoring points at a frequency of approximately 30-minutes throughout the test.

a. Water levels were measured with an electronic depth to water meter. Water level measurements, and calculations of drawdown in the monitoring points, are presented in **Attachment 3**. **Figure 6** presents a map of water level contours during the test.

b. Vapor pressure/vacuum readings were collected at the vacuum pump, and at the well heads of the extraction well and the five vacuum monitoring points. Vacuum readings were collected, using a differential pressure gauge (e.g., Magnehelic® gauge) at periods of 60 minutes or less, with greater frequency (approximately every 15 minutes) in the first hour of the test, or any new test conditions (e.g., change in system vacuum).

c. Air flow rates were recorded from a differential flow meter that is integral to the mobile unit, and located at a point on the influent piping to the vacuum pump. Air flow rates were recorded at approximately 15-minute intervals throughout the testing. (See **Attachment 3**.)

d. VOC concentrations were measured at a sampling point on the discharge piping of the vacuum pump. Samples were collected by pumping into a summa canister under vacuum. Field samples were tested using a PID. Samples were collected at startup and at approximately regular intervals throughout the testing. (See **Table 9**.)

In addition, vapor discharge samples were collected into Summa canisters for laboratory analyses by TO-15 methods, on a period of every 3 hours of testing.

The drop tube in MW-005R was lowered by 48 inches after an elapsed time of 6 hours of testing. The objective of drop tube adjustment was to increase water extraction rate and water level drawdown.

9.4.5 Shutdown and Recovery

The system was be shut down after 8 hours of testing, based on the finding that performance parameters indicated asymptotic conditions; i.e., changes in VOC concentrations, vapor pressures, flow rates, etc. were minimal over time. After shutdown, Site-wide measurements of water levels were collected.

All recovered investigative-derived waste materials was properly contained throughout the course of the pilot test, and disposed of upon completion by Remediation Equipment and Services (RES), the provider of the pilot test equipment (see **Section 12.0**).

10.0 PILOT TEST RESULTS

The results of the monitoring of the various operating and performance parameters of the pilot test system, as described in Section 8, are described in the following subsections.

10.1 Vacuum pressures

A table depicting the various readings recorded at the system trailer or the extraction well head extraction during the pilot test is included as **Table 9**, below.

Table 9 – Field Measurements Observed During Pilot Test

Time of Reading (24 hr.)	System Vacuum @Pump (in. hg)	Vacuum @Moisture Separator (in hg)	Cumulative Water Extracted (gallons)	Extraction Well Vacuum (in. hg)	Pre-Carbon PID (ppm)	Mid-Carbon PID (ppm)	Post Carbon (ppm)	System Airflow (ft/min)	System Vapor Temp. Temp. (F)
7:50 start	17	17	0	14.5	421	31.3	1.5	992	33.6
8:05	17	16	0	14	435	125.3	0	1091	50.1
8:20	17	17	0	14.5	429	124.5	0	1093	50.6
8:50	17	17	0	15	458	128.2	0	1069	51.2
9:30	17.5	17.5	20	15	510	33.7	6.4	1064	81.3
10:00	17.5	18	30	15	539	38.1	7.2	1127	82.5
10:30	17	18	30	16	558	265	0	1130	79.4
11:00	17	18	30	16	590	97	1.2	1058	84.1
11:30	17	18	45	16	583	159	0.6	1045	78.1
12:00	17	18	75	16	588	238	1.8	1065	78.1
12:30	17.5	18	75	16	589	262	2.3	1058	78.4
13:00	17	18	75	15	604	289	4	1161	72.3
13:30	17	17.5	75	15	619	332	6.1	1123	74.1
14:00*	17	18	90	16	616	360	11.7	1120	72.4
14:30	17	18	90	16	646	400	20.9	1124	72.3
15:00	17	18	90	16	630	415	33.5	1140	76.1
15:30	17	18	90	16	650	435	45	1047	66.1
16:00 stop	17	18	90	16	680	445	68	1095	69.2
*Drop Tube Lowered 4' into well									

The following is observed regarding system measurements:

- Vacuum levels at the pump, and at the head of the extraction well, remained relatively stable throughout the pilot test.
- Water removal rates were somewhat stable throughout the test.

- VOC concentrations in the extracted vapors increased steadily throughout the test period, based on PID readings collected upstream of the GAC treatment vessels.
- System airflow rates reached close to their peak rates almost immediately after startup, and remained steady throughout the test.
- Some "breakthrough" of VOCs through the primary carbon vessel is evident after approximately 2 hours of operations.

10.2 Vacuum Distribution/Radius of Influence

Attachment 3 includes a table which presents a vacuum level measurements recorded in the nine (9) observation wells monitored during the test. Significant vacuum changes (i.e., pressure drop > 1.0 inch H_2O) were observed in monitoring points VMP-001, VMP-002, MW-001R. The highest vacuum readings were recorded in VMP-002, located approximately 7.5 feet to the southeast of extraction well MW-005R. Vacuum readings climbed steadily and reached their peak, of 23 inches H_2O, at 3 hours into the test. They then remained steady, at readings of between approximately 21 to 23 inches H_2O for the duration of the test period.

Well MW-001R is located approximately 35 feet to the south of the extraction well. Vacuum readings climbed steadily and reached their peak, of 6 inches H_2O, at 5 hours into the test, and then slowly lessened to a reading of 4.8 at the end of the test.

No significant vacuum influence was observed in monitoring points VMP-003, VMP-004, MW-003R, MP-001, MP-002, MW-007, MW-008.

10.3 Concentrations

Groundwater Concentrations

One (1) groundwater sample was collected from monitoring well MW-005R at the conclusion of the pilot test. This sample was analyzed for VOCs plus MTBE and TBA via EPA method 8260. The sample was submitted, packed on ice and under chain of custody, to Analytical Laboratory services, Inc. of Middletown, PA.

Results of the groundwater investigation laboratory analyses were compared against the applicable MDE VCP groundwater standards (see **Attachment 3**).

Analysis results indicated the presence of the following compound concentrations above the applicable MDE VCP groundwater standards:

- 1,2-dibromoethane; benzene; naphthalene; toluene, and trichloroethylene

The concentrations of these compounds are shown in **Table 10**, below.

Table 10 – Compounds with Concentrations above the MDE VCP GW Standards

			Sample ID	*MW-005R*
			Date	*03/13/2013*
Compound	**MDE VCP**	**Unit**		
1,2-Dibromoethane	0.05	ug/l		**4.8**
Benzene	5	ug/l		**872**
Naphthalene	0.65	ug/l		**75.1**
Toluene	1000	ug/l		**2290**
Trichloroethylene	5	ug/l		**393**

*Exceedences of the regulatory standard are printed in **bold**.

Air Extraction Concentrations

The following compounds were detected at concentrations above the laboratory MDLs in the air extraction samples collected during the pilot test on March 13, 2013:

- 2,2,4-Trimethylpentane; benzene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; cyclohexane; ethylbenzene; m/p-xylene; n-heptane; n-hexane; o-xylene; p-ethyltoluene; toluene; and total xylenes

Calculated total VOCs in extracted vapors diminished steadily over the course of the test. Concentrations of the various individual VOC compounds, however, did not necessarily exhibit this trend. The concentrations of these compounds detected in the collected air extraction samples from the Site, as well as the calculated total VOCs, are shown in **Table 11**, below.

Table 11 – Concentrations of Compounds Detected in Air Extraction Samples

		Sample ID	*AE-001*	*AE-002*	*AE-003*	*AE-004*
		Sample Collection Time	*08:00*	*11:00*	*14:00*	*16:30*
		Date	*03/13/2013*	*03/13/2013*	*03/13/2013*	*03/13/2013*
Compound	**Units**					
2,2,4-Trimethylpentane	ug/m3		355000	282000	282000	190000
Benzene	ug/m3		371000	290000	317000	241000
1,2,4-trimethylbenzene	ug/m3		34500	76700	58000	56000
1,3,5-trimethylbenzene	ug/m3		13700	29000	22800	21500
Cyclohexane	ug/m3		278000	236000	214000	215000
Ethylbenzene	ug/m3		93800	132000	113000	104000
m/p-xylene	ug/m3		316000	364000	361000	351000
n-Heptane	ug/m3		652000	549000	549000	384000
n-Hexane	ug/m3		3450000	2720000	2420000	2010000
o-Xylene	ug/m3		83400	132000	110000	103000
p-Ethyltoluene	ug/m3		11700	24600	18800	17900
Toluene	ug/m3		1040000	897000	984000	626000
Xylene (total)	ug/m3		400000	495000	473000	452000
TOTAL VOCs	ug/m3		7099100	6227300	5922600	4771400

10.4 Water Recovery and Water Levels

A table presenting water level measurements in the nine (9) observation wells monitored

during the test, recorded at startup, and then periodically throughout the duration of the test is included in **Attachment 3** of this report (*Groundwater Field Observations Data Collected during the Pilot Test*). This table includes depth to water, PID reading information, water vacuum, and water pressure information. Depth to water information collected one week prior to the pilot test is shown in **Table 2** in **Section 5.1.2**. Depth to water information collected following the completion of the pilot test is shown in **Table 12**.

Measurable drawdown was recorded in six (6) of the nine (9) observation points. Significant water level drawdown[21] was observed in VMP-001, VMP-002, VMP-003, VMP-004, and MW-001R. The greatest drawdown was a drawdown of 1.52 feet in VMP-002, located 7.5 feet to the southeast of the extraction well MW-005R.

Well MW-001R is located 35 feet to the southeast of the extraction well. A maximum drawdown of 0.44 feet was observed in the well, at an elapsed time of 4 hours; the water levels remained relatively stable throughout the remaining duration of the test. The other wells in which significant drawdown was recorded exhibited a similar pattern of reaching peak drawdown after an elapsed time of 4 hours, and maintaining steady water levels for the remainder of the test.

No significant drawdown was recorded in MW-003R, MW-007, and tank field wells MP-001 and MP-002.

This data is used to draw conclusions about creating groundwater containment and capture, in **Section 11**.

Table 12 – Depth to Water Post Pilot Test

Well	Depth to Water (ft)
MP-002	5.95
MP-001	5.49
VMP-001	17.11
VMP-002	17.21
VMP-003	16.92
VMP-004	17.26
MW-003R	14.96
MW-008	17.19
MW-005R	16.9
MW-007	16.12
MW-001R	16.85

11.0 PILOT TEST CONCLUSIONS

Based on the results of the pilot testing, REPSG has reached certain conclusions relevant to the selection and design of a full scale remedial system, as described in the following

[21] For the purposes of this test, significant water level drawdown is defined as 0.1 feet.

subsections.

11.1 Vacuum Radius of Influence

The vacuum radius of influence (ROI) was calculated based on empirical evidence; the measurement of vacuum in the nine (9) observation points during the full-scale pilot test. The results of the pilot test indicated a vacuum ROI greater than 35 feet. The results further indicate a strong preferential direction of vacuum distribution towards the southeast. It is presumed, but not confirmed, that this preferential pathway is attributable to local constructed pathways, such as product piping or utility runs, rather than hydrogeological features.

REPSG recommends a radius of 20 feet, as a conservative Effective ROI, as the design basis for the remedial system. A further discussion of the scope of a full-scale system for the project is presented below. Alternatives to consider may also include staged implementation of the system. Implementation of the scope as described below would be subject to final approval of all parties involved.

11.2 Extraction Well Spacing and Design

Based on the Effective ROI of 20 feet, a conservative spacing of extraction wells of 30 feet has been selected, as shown on the remedial system layout presented on **Figure 13**.

11.3 System Pump Specifications

The design criteria for the system vacuum pump is to create sufficient air flow, estimated at 20 to 30 SCFM, at each energized extraction well, to meet remediation goals. To create this airflow, we have specified a pump that is rated to produce approximately 120 CFM at 17 in. Hg, as further described in **Section 11**.

11.4 Water Extraction, Groundwater Containment and Plume Capture

A relatively low rate of water discharge from the extraction well during the pilot test was successful in creating a wide zone of groundwater drawdown. The water discharge rate was approximately 0.5 gallons per minute (gpm), and water drawdown of 0.44 feet was observed at a distance of 35 feet from the extraction well.

We include that a similar rate of groundwater extraction, if produced from each of the energized extraction wells in operation under a full scale DPE system, would be expected to significantly contain groundwater flow, and capture the contaminant plume, on the site.

We have incorporated in the system design, a groundwater extraction rate of 2 to 4 gpm for the system.

11.5 Remedial technology design considerations

For the final system, the design of the vacuum pump will include a scaling up in pump capacity, to match the increase in energized extraction wells from one to four. The proposed extraction wells to be installed will not vary significantly in design from MW-005R, the pilot test extraction well.

Treatment systems for the system offgasses and water discharges have been designed based on the contaminant concentrations observed during the pilot test, and the discharge rates designed for the full scale system. Treatment systems have been designed conservatively, using the assumption that the contaminant concentrations observed in water discharges and vapor emissions during the pilot test will persist over time. Backup plans are in place to accommodate the system if contaminant concentrations lessen over time.

12.0 PROPOSED REMEDIATION SYSTEM

REPSG selected Remediation Equipment and Services (RES) of Royersford, PA as a team member for this project. RES provided equipment and operational support for the Pilot Test, and has assisted with pilot test data evaluation and engineering design support for the proposed remediation system. As described in previous sections, the results of preliminary screening and pilot testing indicate that DPE is a feasible and viable technology for use in effecting significant and efficient contaminant mass removal, source area control, and, to a lesser extent, creating a groundwater capture zone in the vicinity of the source area.

Based on the results of the site characterization and the remediation technology screening, use of DPE as a remedial technology should be considered favorably. Design considerations of a full-scale system are presented herein.

12.1 System Design

A full scale remedial system would consist of a multi-phase vacuum extraction pump, connected to and operating on multiple extraction wells. The result will be extraction of contaminant mass from the subsurface, both in vapor phase and in dissolved phase in groundwater and soil moisture. The system must also have capacity to separate and handle any LPH which may be extracted, although extraction of significant quantities of LPH is considered unlikely.

The system is designed to be flexible, and responsive to site conditions encountered, to maximize the efficiency of contaminant mass removal. Operating parameters such the number and selection of wells that are online; vacuum pressures directed to each well, and resultant air flows; and rate of groundwater extraction from each well can and will be adjusted on a regular basis to optimize system performance.

Extracted vapors and water will treated to remove contaminants, and then discharged to

the environment, all under terms of appropriate emissions/discharge permits to be obtained as necessary.

12.2 Methodology

A Process and Instrumentation Diagram is provided as **Figure 14**. A Site diagram showing the location of major system components is provided as **Figure 13**. Tear sheets for the major system components are provided in **Attachment 6**. The system components are described below.

The vacuum pump will be a dry and contact-free compression claw vacuum pump capable of generating approximately 140 cubic feet per minute (CFM) system air flow at 20 inches HgV. The design anticipates that the system will generate an air flow of approximately 20 to 30 SCFM, at a vacuum of approximately 17 inches Hg from each energized extraction well. The pump specified is a Gardner-Denver Zephyr C-VLR 251 Model, or equivalent. The pump, and the remainder of the system's power needs, will be serviced from a dedicated 3-phase 480V power service to be installed at the property.

The system has been designed to include up to seven multiphase extraction wells. The extraction wells will be constructed of 4" diameter PVC materials, installed to a total depth of approximately 25 fbg, and screened from 5 fbg to the bottom of the well. Four (4) of the wells will be newly constructed; three (3) of wells will be those previously installed as groundwater monitoring wells MW-001, MW-003, and MW-005, converted for use in the remedial system. Typical design of the multiphase extraction wells are shown in **Figure 15**.

The system pump of the system will be connected to all of the extraction wells via 2-inch PVC piping in subsurface trenches, extended via drop tubes to the bottom of the wells. The wells will be completed with a cap to allow access to the well head for sampling of groundwater, vapor, and vacuum readings. The wells will be capped with steel traffic-rated caps flush with the paved surface of the Site.

Extracted vapors (offgases) will be treated to remove VOC contaminants to achieve at the minimum, compliance with the air emissions permit. Based on the VOC concentrations observed during pilot testing, we have specified a catalytic oxidation unit to treat system offgasses. The CatOx unit will be capable of 95% destruction efficiency; have a capacity to handle at least 150 CFM and to load up to 250 lbs. per day of petroleum hydrocarbons. A Falco 300 electric catalytic oxidizer, or equivalent, is specified. If VOC concentrations in offgases decrease over the period of system operations; alternative technologies such as vapor-phase GAC will be considered in place of the CatOx.

Water extracted from the subsurface will be collected in a knockout pot (or "knockout tank"). From there, a level-actuated switch will trigger a transfer to send the water to treatment and either discharge via an approved discharge permit or alternate means. Water will be pretreated by a multi-tray high efficiency air stripper, capable of handling

up to 25 gpm of water flow. An E-Z Model 4.4 Air Stripper, or equivalent, is specified.

The DPE will be equipped with an electronic control panel, and with numerous sensors, monitors, alarms and controls to provide automatic notification of system conditions outside of design operating specifications. The control panel will be connected to a telemetry system, which will notify offsite project personnel by telephone, in sequence until a team member is reach, of alarm or shutdown conditions.

12.3 Implementation

The system is designed to operate continuously. The system is equipped with various alarms and alerts which will, depending on the particular condition, alert the system operations personnel, through a telemetry system, of alarm conditions and/or perform emergency shutdown of the pump.

12.4 Operations & Maintenance Plan

REPSG has prepared a draft Operations & Maintenance (O&M) Program for the proposed remedial system. The objectives of system O&M will be to optimize system performance and ensure operational continuity (i.e., maximize "up time"). The elements of the O&M program are described below.

A. Routine O&M Visits

Routine O&M visits will be scheduled on a twice monthly basis. The field technician will implement a schedule of site activities specified in detail in the site-specific O&M manual, a copy of which will be maintained on site. The technician will record notes on Routine Visit O&M Logs prepared for the project. One copy of the O&M Log will be left on the site in the field manual; the original will be returned to the project manager.

1. Performance Monitoring

O&M operations will include monitoring of system performance parameters, including VOC concentrations in air and water discharges, system and extraction well air flow rates, system and extraction well water discharge rates, and vacuum reading from various points in the system. This information will be used to calculate contaminant mass removal rates for the system and for the individual extraction wells.

2. System Optimization

Data collected regarding system performance parameters will be used to determine optimal system operational parameters, including which wells to energize or idle; drop tube settings and target water extraction rates for each extraction well; vacuum settings and air flow targets; changeout of consumable supplies, etc. Project O&M field technicians will be authorized and trained to make certain changes to system operational parameters immediately based on

findings in the field; other system changes will be determined by project management personnel based on data collected at an O&M visit, and implemented by the field technician at a future O&M visit.

3. System Maintenance

Routine inspection and maintenance will be performed on the systems mechanical equipment during routine O&M visits. This will include changeout of consumable supplies such as granular activated carbon; cleaning, de-scaling, and/or desludging of various fluid handling components; lubrication, etc.

4. Discharge Monitoring/ Permit Compliance

Contaminant concentrations in system vapor emissions and water discharges will be measured at each O&M visit. Samples will be collected for laboratory analyses, as directed by any discharge or emissions permits for the site.

B. Non-routine O&M Visits

The system will be equipped with a telemetry system, that will notify O&M personnel immediately via phone message of alarm conditions or system shutdown. O&M personnel will be dispatched promptly to evaluate the reasons for the alarm condition and/or shutdown, complete necessary adjustments or repairs, and restart the system.

12.5 Schedule

Full implementation of the schedule for acquisition, installation, and operations of a remediation strategy will commence following approval of all involved parties. A preliminary implementation schedule assuming initial approval is provided in **Attachment 3**. This schedule is subject to change based on client, MDE and Site owner considerations.

12.6 Reporting

A *Quarterly Remedial Action progress Report (RAPR)* will be submitted to the Department following the completion of each quarter that the proposed Remediation System is active at the Site, and will present:

- Tables presenting systems operations data for the period, including vacuum and airflow readings, emissions and discharge flow rates and contaminant concentrations, etc.;
- Calculations of contaminant removal rates for the quarter, as well as cumulative totals for the period system performance;
- System operations issues or difficulties;
- Permit compliance reporting;

- Significant adjustment to system operational parameters during the quarter, and any planned for the next quarter; and
- Information regarding site water levels, including a groundwater contour map, and a description of groundwater capture efficacy.

12.7 Shutdown

Remediation system shutdown criteria should be addressed on a Site-specific basis. Standard shutdown criteria would consist of:

1) Soil cleanup standards are reached, as determined by soil sampling and analyses;
2) MDE groundwater cleanup standards are achieved in onsite groundwater monitoring wells;
3) Asymptotic mass removal conditions, unresponsive to system optimization measures;
4) The system is no longer cost-effective, as determined by quarterly calculations of cost per unit of contaminant mass removal, compared to selected alternatives.

Progress towards reaching any of these criteria will be reporting in the Quarterly Remedial Action Progress Report.

ATTACHMENT 1: FIGURES

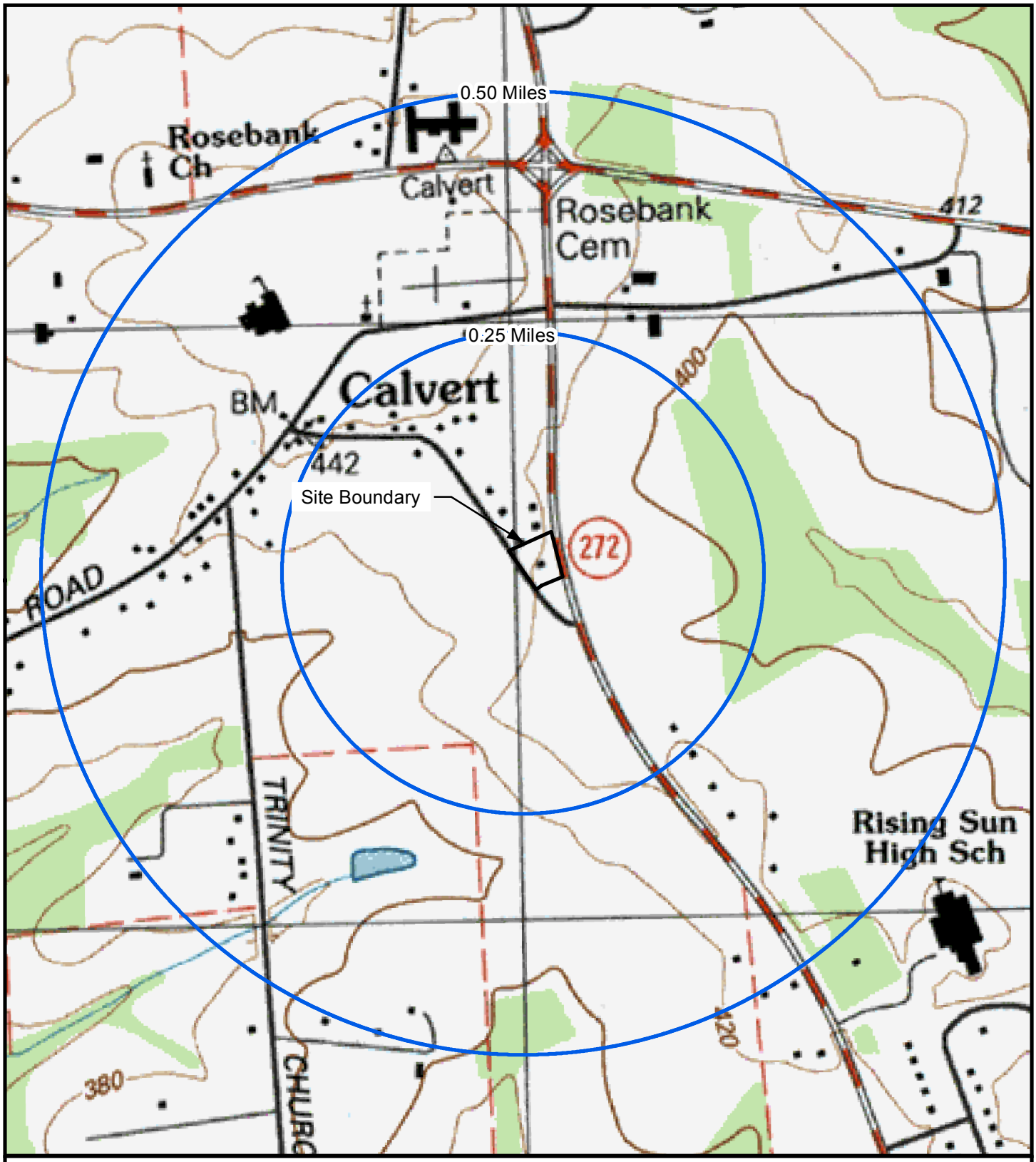

Figure 1: Site Location

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: *1 inch = 750 feet*
0 162.5 325 650 975 1,300 Feet

PROJECT NAME: *CALVERT CITGO*
PROJECT ADDRESS: *2815 NORTH EAST ROAD, NORTH EAST, MD*
PROJECT NUMBER: *005977*
DATE: *APRIL 2013*

N
S

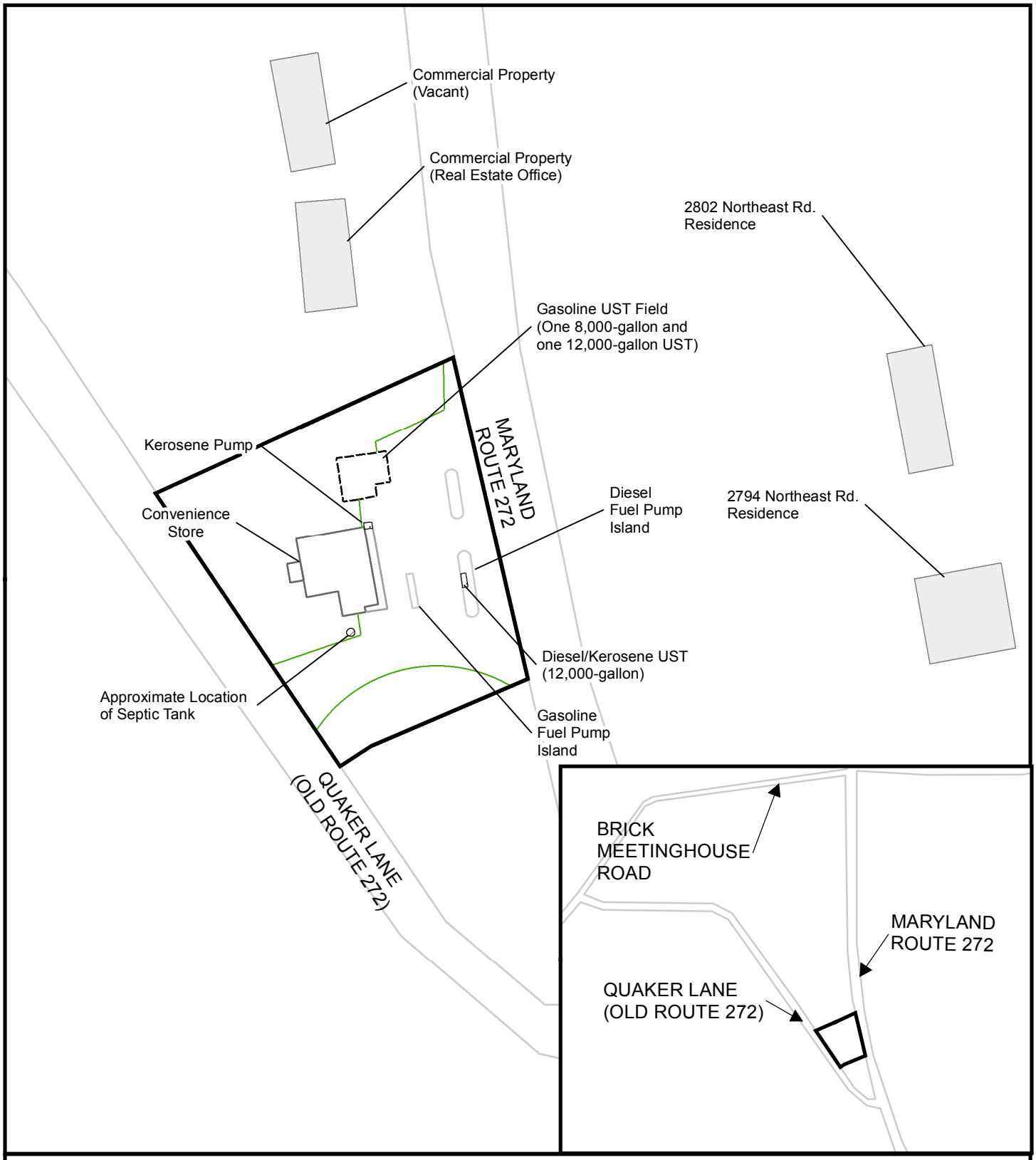

Figure 2: Site Diagram

Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 100 feet
0 20 40 80 120 160
Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

N
S

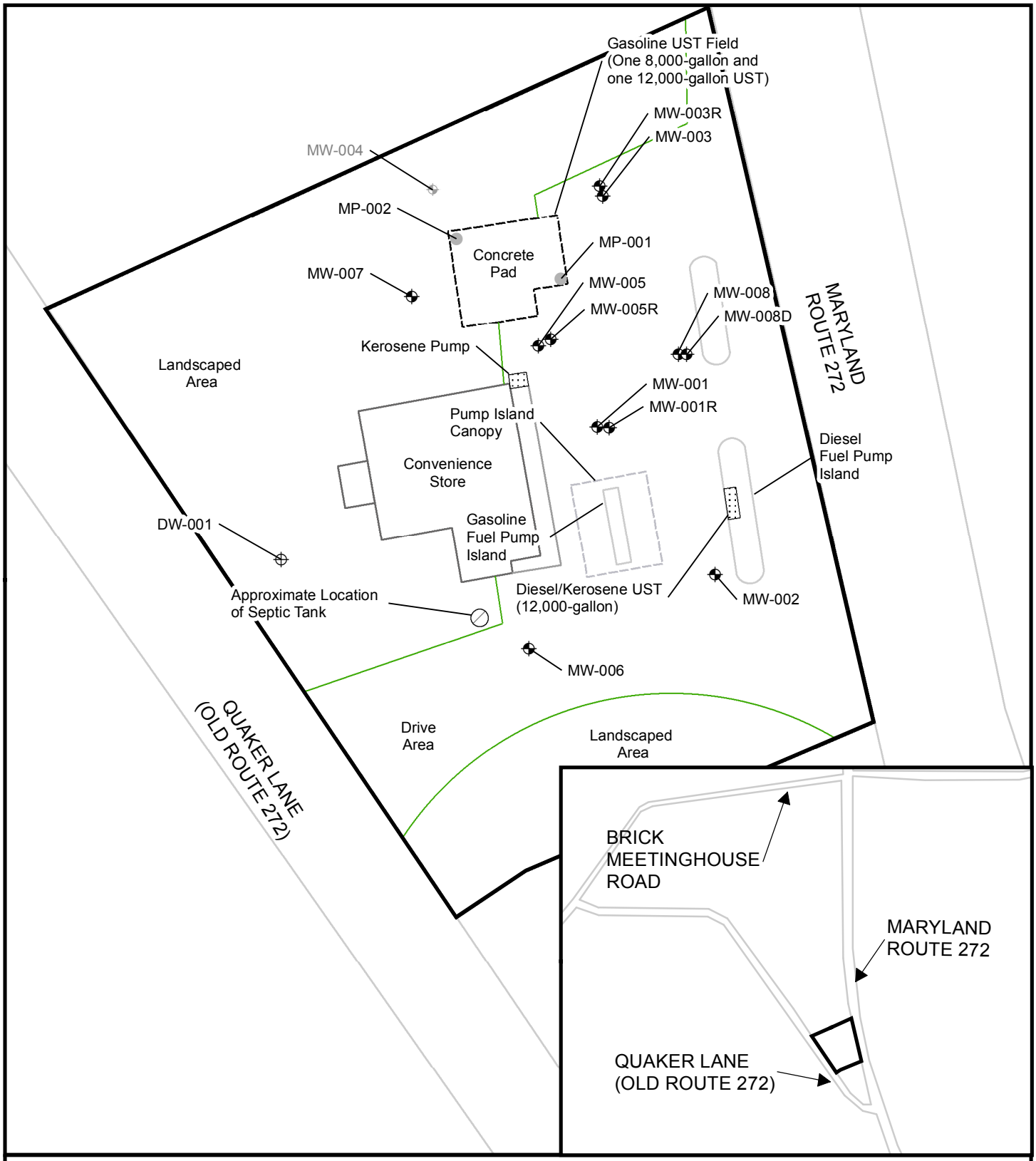

Figure 3: Groundwater Sample Locations

Lost/Abandoned Monitoring Well | Leak Detection Well | Potable Well | Monitoring Well | Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 45 feet
0 10 20 40 60 80 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

N
S

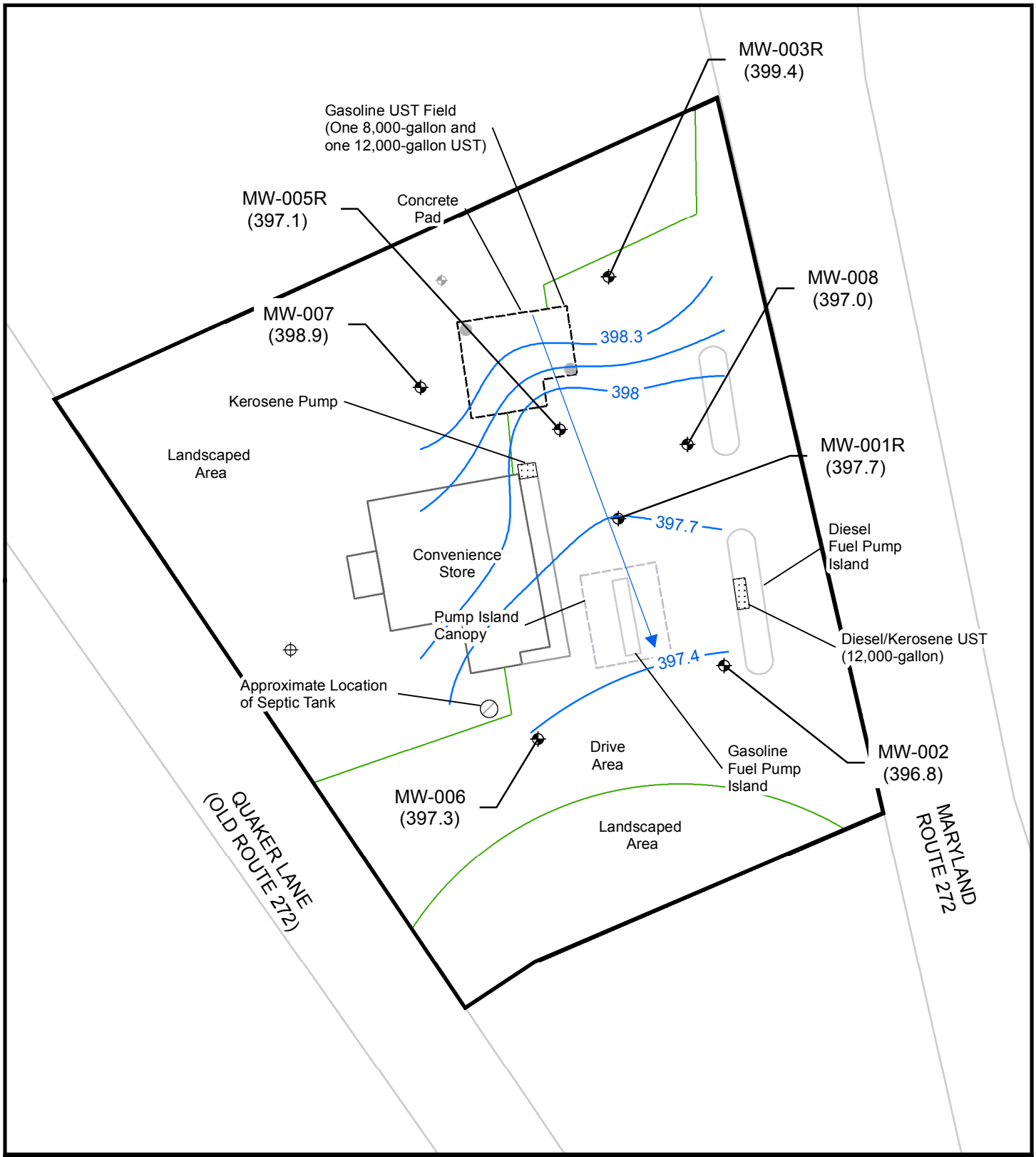

Figure 4: GROUNDWATER CONTOUR MAP (November 15-16, 2012)

Groundwater Directional Flow

MW-001 (176.01) Site ID
Groundwater Elevation (feet above datum)

Monitoring Well (Measured)

Monitoring Well (Lost)

Leak Detection Well

Potable Well

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 45 feet
0 10 20 40 60 80 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

N
S

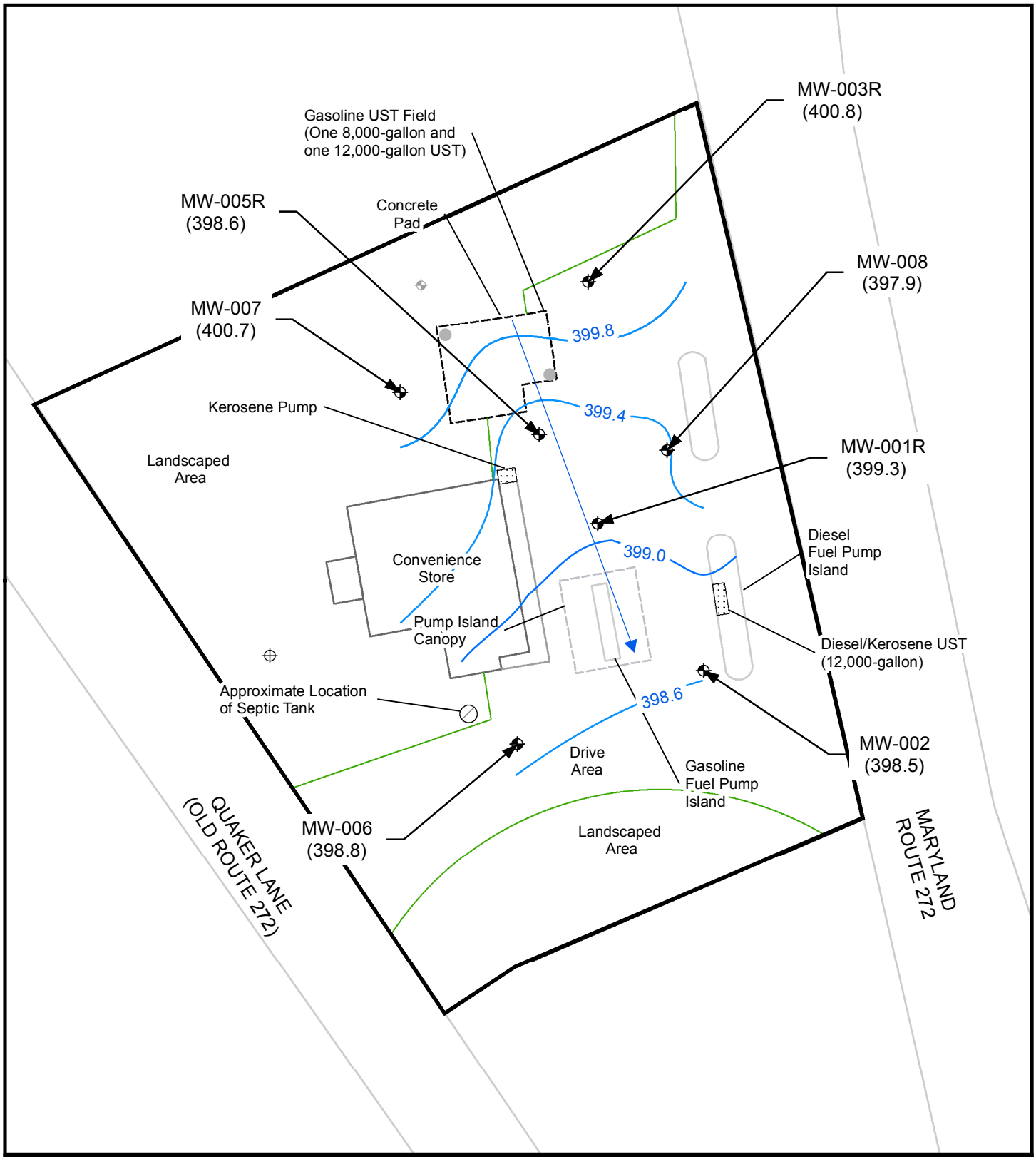

Figure 5: GROUNDWATER CONTOUR MAP (March 7-8, 2013)

MW-001
(176.01)
Site ID
Groundwater Elevation (feet above datum)

Groundwater Directional Flow
Monitoring Well (Measured)
Monitoring Well (Lost)
Leak Detection Well
Potable Well

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 45 feet
0 10 20 40 60 80 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

N
S

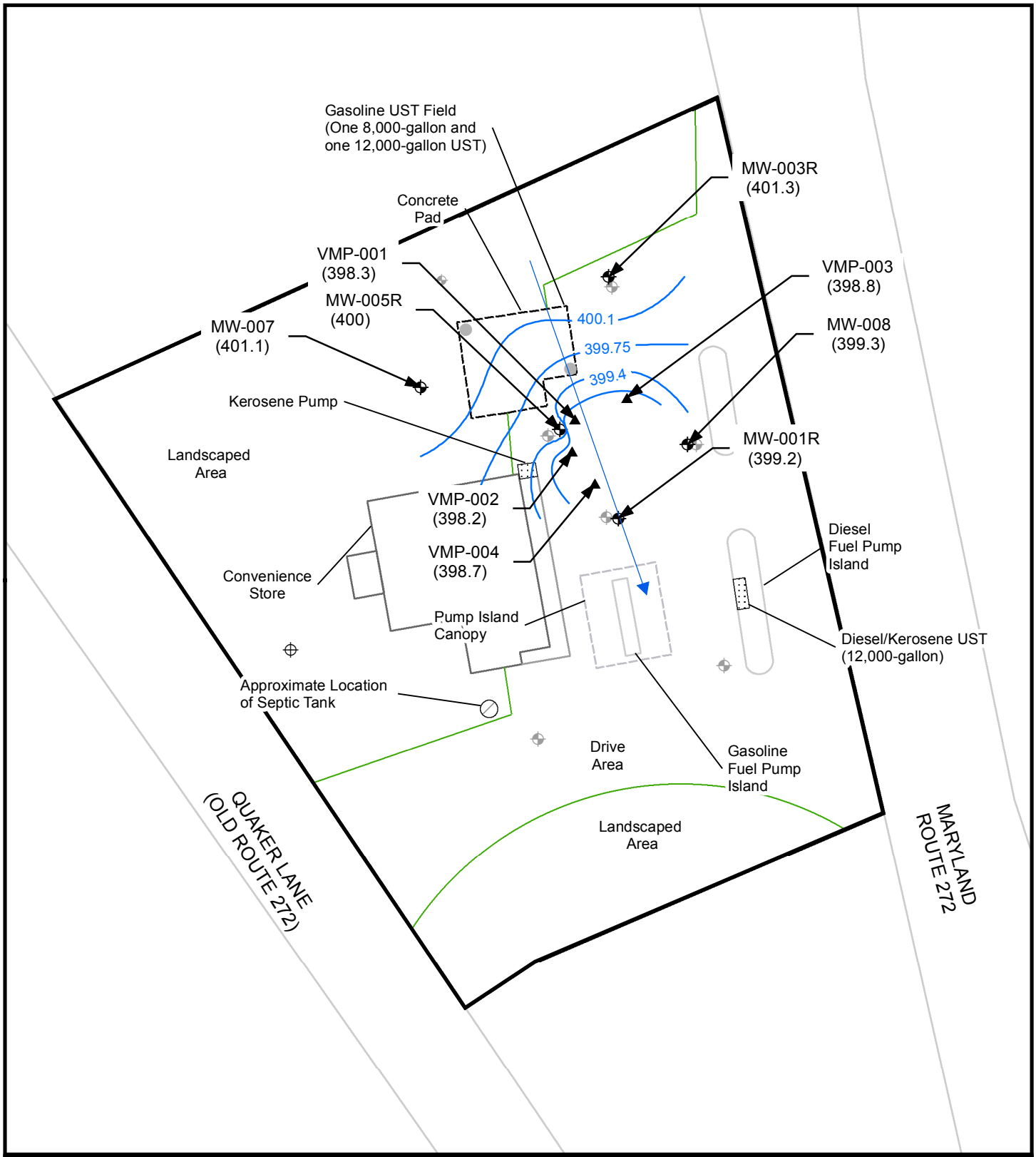

Figure 6: GROUNDWATER CONTOUR MAP (March 13, 2013 - Mid-Pilot Test)

Groundwater Directional Flow

MW-001 (176.01) Site ID

Groundwater Elevation (feet above datum)

▲ Vapor Monitoring Well Point

Monitoring Well (Measured)

Monitoring Well (Not Measured or Lost)

Leak Detection Well

Potable Well

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 45 feet

0 10 20 40 60 80 Feet

PROJECT NAME: ***CALVERT CITGO***

PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***

PROJECT NUMBER: ***005977***

DATE: ***APRIL 2013***

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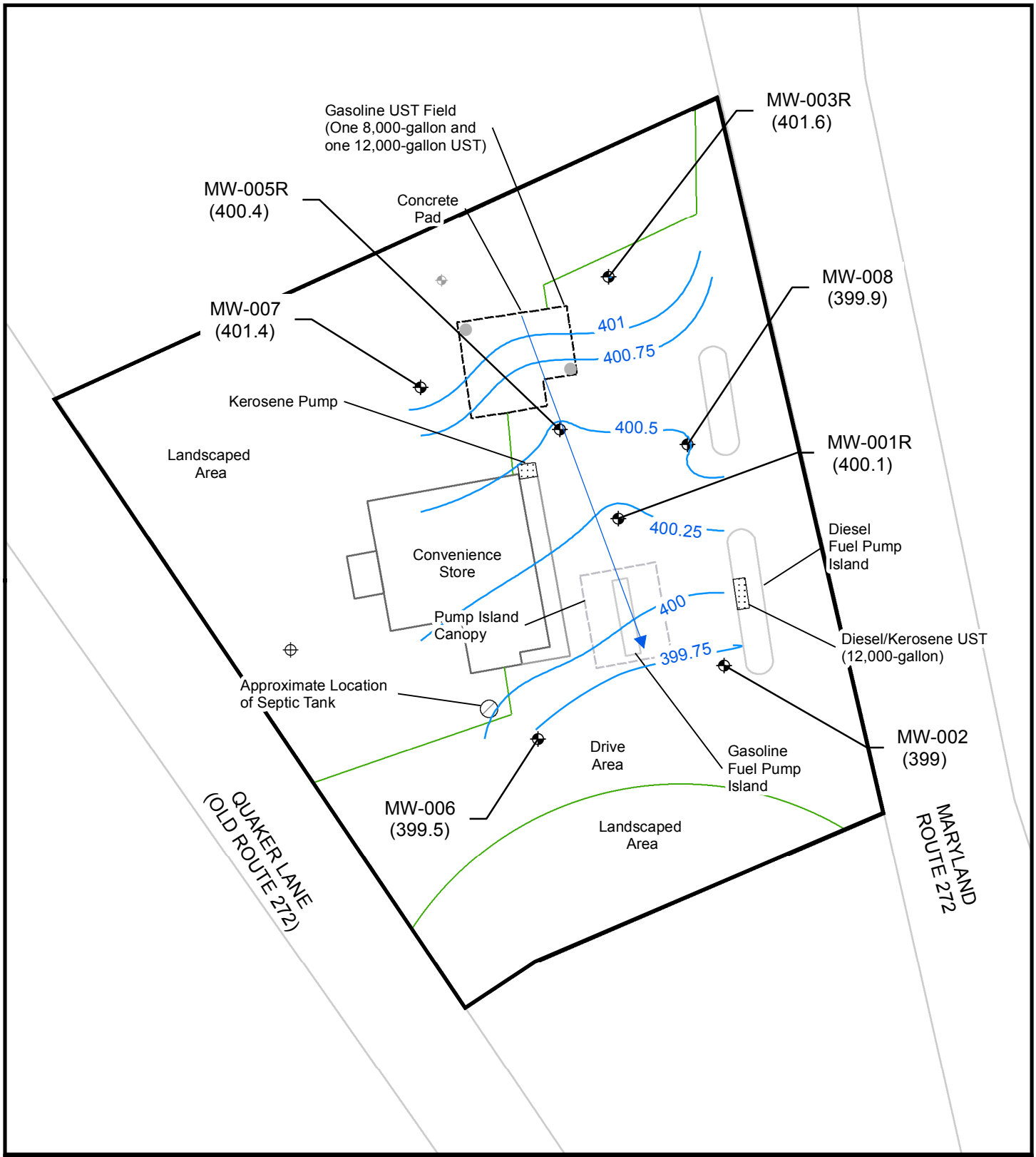


Figure 7: GROUNDWATER CONTOUR MAP (April 1-2, 2013)

Groundwater Directional Flow

MW-001 (176.01) Site ID
Groundwater Elevation (feet above datum)

Monitoring Well (Measured)

Monitoring Well (Lost)

Leak Detection Well

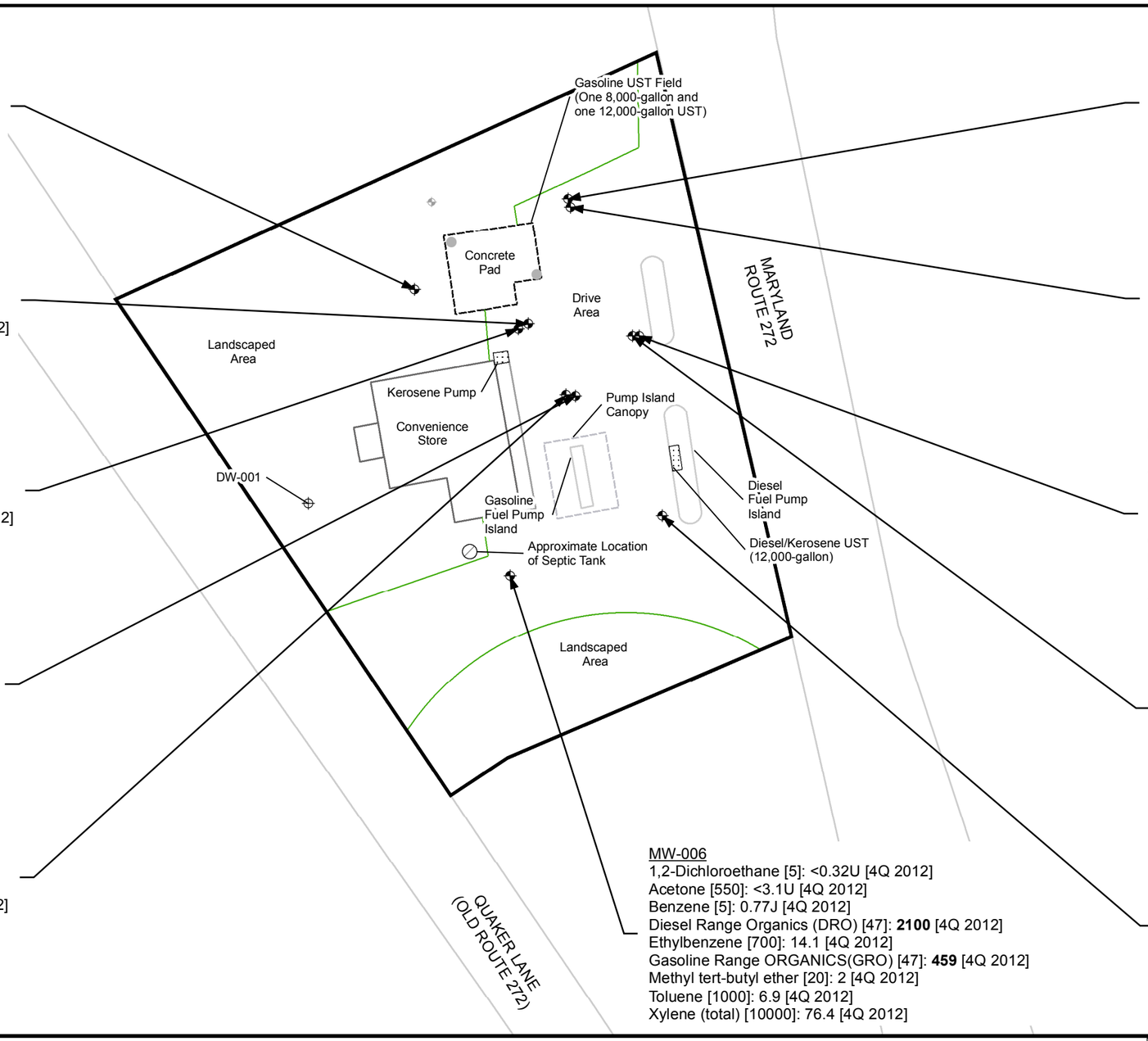
Potable Well

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 45 feet
0 10 20 40 60 80 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

N
S



MW-007
1,2-Dichloroethane [5]: <16U# [4Q 2012]
Acetone [550]: <155U [4Q 2012]
Benzene [5]: **430** [4Q 2012]
Diesel Range Organics (DRO) [47]: **1300** [4Q 2012]
Ethylbenzene [700]: 421 [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **14900** [4Q 2012]
Methyl tert-butyl ether [20]: <16.5U [4Q 2012]
Toluene [1000]: **3190** [4Q 2012]
Xylene (total) [10000]: 1730 [4Q 2012]

MW-005R
1,2-Dichloroethane [5]: <1.6U [4Q 2012]
Acetone [550]: 387 [4Q 2012]
Benzene [5]: **8660** [4Q 2012]
Diesel Range Organics (DRO) [47]: **9600** [4Q 2012]
Ethylbenzene [700]: **2740** [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **140000** [4Q 2012]
Methyl tert-butyl ether [20]: 8.7 [4Q 2012]
Toluene [1000]: **26200** [4Q 2012]
Xylene (total) [10000]: **15000** [4Q 2012]

MW-005
1,2-Dichloroethane [5]: <1.6U [4Q 2012]
Acetone [550]: **763** [4Q 2012]
Benzene [5]: **475** [4Q 2012]
Diesel Range Organics (DRO) [47]: **11200** [4Q 2012]
Ethylbenzene [700]: **2940** [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **133000** [4Q 2012]
Methyl tert-butyl ether [20]: 14 [4Q 2012]
Toluene [1000]: **12800** [4Q 2012]
Xylene (total) [10000]: **14300** [4Q 2012]

MW-001R
1,2-Dichloroethane [5]: **114** [4Q 2012]
Acetone [550]: <3.1U [4Q 2012]
Benzene [5]: **81.9** [4Q 2012]
Diesel Range Organics (DRO) [47]: **920** [4Q 2012]
Ethylbenzene [700]: 12.3 [4Q 2012]
Gasoline RangeORGANICS(GRO) [47]: **1080** [4Q 2012]
Methyl tert-butyl ether [20]: **89** [4Q 2012]
Toluene [1000]: 59.5 [4Q 2012]
Xylene (total) [10000]: 58.8 [4Q 2012]

MW-001
1,2-Dichloroethane [5]: **8.5** [4Q 2012]
Acetone [550]: <3.1U [4Q 2012]
Benzene [5]: **14500** [4Q 2012]
Diesel Range Organics (DRO) [47]: **2400** [4Q 2012]
Ethylbenzene [700]: **1590** [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **19600** [4Q 2012]
Methyl tert-butyl ether [20]: **27.8** [4Q 2012]
Toluene [1000]: 522 [4Q 2012]
Xylene (total) [10000]: 2540 [4Q 2012]

MW-003R
1,2-Dichloroethane [5]: <0.32U [4Q 2012]
Acetone [550]: <3.1U [4Q 2012]
Benzene [5]: **152** [4Q 2012]
Diesel Range Organics (DRO) [47]: **1700** [4Q 2012]
Ethylbenzene [700]: 56.6 [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **2240** [4Q 2012]
Methyl tert-butyl ether [20]: 17 [4Q 2012]
Toluene [1000]: 79.9 [4Q 2012]
Xylene (total) [10000]: 187 [4Q 2012]

MW-003
1,2-Dichloroethane [5]: <1.6U [4Q 2012]
Acetone [550]: 105 [4Q 2012]
Benzene [5]: **66.1** [4Q 2012]
Diesel Range Organics (DRO) [47]: **4200** [4Q 2012]
Ethylbenzene [700]: **1250** [4Q 2012]
Gasoline RangeORGANICS(GRO) [47]: **19600** [4Q 2012]
Methyl tert-butyl ether [20]: 7.2 [4Q 2012]
Toluene [1000]: 816 [4Q 2012]
Xylene (total) [10000]: 5910 [4Q 2012]

MW-008D
1,2-Dichloroethane [5]: <0.32U [4Q 2012]
Acetone [550]: <3.1U [4Q 2012]
Benzene [5]: 0.43J [4Q 2012]
Diesel Range Organics (DRO) [47]: **280** [4Q 2012]
Ethylbenzene [700]: <0.34U [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: <13.9U [4Q 2012]
Methyl tert-butyl ether [20]: 0.75J [4Q 2012]
Toluene [1000]: 0.87J [4Q 2012]
Xylene (total) [10000]: <0.66U [4Q 2012]

MW-008
1,2-Dichloroethane [5]: <3.2U [4Q 2012]
Acetone [550]: <31U [4Q 2012]
Benzene [5]: **449** [4Q 2012]
Diesel Range Organics (DRO) [47]: **1300** [4Q 2012]
Ethylbenzene [700]: 197 [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **3470** [4Q 2012]
Methyl tert-butyl ether [20]: **664** [4Q 2012]
Toluene [1000]: 20.5 [4Q 2012]
Xylene (total) [10000]: 41.1 [4Q 2012]

MW-006
1,2-Dichloroethane [5]: <0.32U [4Q 2012]
Acetone [550]: <3.1U [4Q 2012]
Benzene [5]: 0.77J [4Q 2012]
Diesel Range Organics (DRO) [47]: **2100** [4Q 2012]
Ethylbenzene [700]: 14.1 [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **459** [4Q 2012]
Methyl tert-butyl ether [20]: 2 [4Q 2012]
Toluene [1000]: 6.9 [4Q 2012]
Xylene (total) [10000]: 76.4 [4Q 2012]

MW-002
1,2-Dichloroethane [5]: <0.32U [4Q 2012]
Acetone [550]: <3.1U [4Q 2012]
Benzene [5]: **48.6** [4Q 2012]
Diesel Range Organics (DRO) [47]: **390** [4Q 2012]
Ethylbenzene [700]: 1.1 [4Q 2012]
Gasoline Range ORGANICS(GRO) [47]: **180** [4Q 2012]
Methyl tert-butyl ether [20]: 17.6 [4Q 2012]
Toluene [1000]: 0.35J [4Q 2012]
Xylene (total) [10000]: 3.1 [4Q 2012]

Figure 8: GROUNDWATER CONTAMINANT DISTRIBUTION MAP (November 15-16)

Monitoring Well ● Leak Detection Wells ◈ Lost/Abandoned Monitoring Well ⊕ Potable Well ▭ Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 50 feet

0 12.5 25 50 75 100 Feet

PROJECT NAME: *CALVERT CITGO*
PROJECT ADDRESS: *2815 NORTH EAST ROAD, NORTH EAST, MD*
PROJECT NUMBER: *005977*
DATE: *APRIL 2013*

LABEL LEGEND:

Concentration (ppb) — Sample Date

B-017
Toluene (100): **270** [2Q 2004] / ND [3Q 2004]

Groundwater Cleanup Standard (ppb)

ND - Concentration Not Detected Above Laboratory Reporting Limits
Exceedences of the Regulatory Standard Printed in bold

N
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MP-002
1,2-Dichloroethane [5]: <0.32U [1Q 2013]
Benzene [5]: **357** [1Q 2013]
Ethylbenzene [700]: <0.34U [1Q 2013]
Methyl chloride [19]: **190** [1Q 2013]
Methyl tert-butyl ether [20]: 5.1 [1Q 2013]
Toluene [1000]: **2180** [1Q 2013]
Xylene (total) [10000]: 186 [1Q 2013]

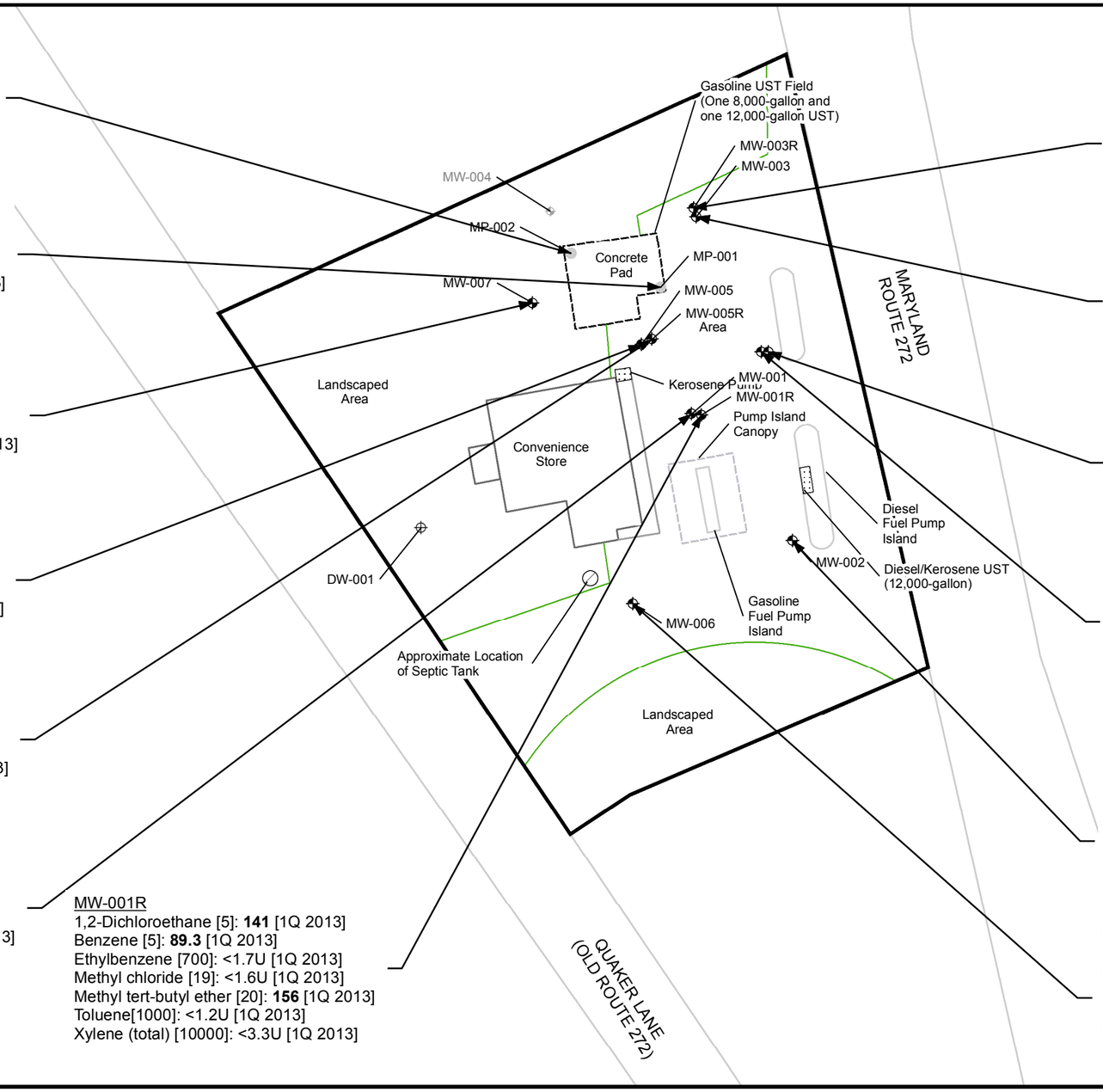
MP-001
1,2-Dichloroethane [5]: <3.2U [1Q 2013]
Benzene [5]: **1230** [1Q 2013]
Ethylbenzene [700]: 57.2 [1Q 2013]
Methyl chloride [19]: **438** [1Q 2013]
Methyl tert-butyl ether [20]: **39.9** [1Q 2013]
Toluene [1000]: **3180** [1Q 2013]
Xylene (total) [10000]: 948 [1Q 2013]

MW-007
1,2-Dichloroethane [5]: <1.6U [1Q 2013]
Benzene [5]: **64.9** [1Q 2013]
Ethylbenzene [700]: 211 [1Q 2013]
Methyl chloride [19]: <1.6U [1Q 2013]
Methyl tert-butyl ether [20]: <1.7U [1Q 2013]
Toluene [1000]: 423 [1Q 2013]
Xylene (total) [10000]: 1080 [1Q 2013]

MW-005
1,2-Dichloroethane [5]: <1.6U [1Q 2013]
Benzene [5]: **271** [1Q 2013]
Ethylbenzene [700]: **2490** [1Q 2013]
Methyl chloride [19]: **122** [1Q 2013]
Methyl tert-butyl ether [20]: 15.8 [1Q 2013]
Toluene [1000]: **25400** [1Q 2013]
Xylene (total) [10000]: **12700** [1Q 2013]

MW-005R
1,2-Dichloroethane [5]: <1.6U [1Q 2013]
Benzene [5]: **6000** [1Q 2013]
Ethylbenzene [700]: **2150** [1Q 2013]
Methyl chloride [19]: **39.3** [1Q 2013]
Methyl tert-butyl ether [20]: 13.4 [1Q 2013]
Toluene [1000]: **28500** [1Q 2013]
Xylene (total) [10000]: **13000** [1Q 2013]

MW-001
1,2-Dichloroethane [5]: 3.9J [1Q 2013]
Benzene [5]: **9640** [1Q 2013]
Ethylbenzene [700]: **872** [1Q 2013]
Methyl chloride [19]: <1.6U [1Q 2013]
Methyl tert-butyl ether [20]: **23.7** [1Q 2013]
Toluene [1000]: 385 [1Q 2013]
Xylene (total) [10000]: 1530 [1Q 2013]



MW-001R
1,2-Dichloroethane [5]: **141** [1Q 2013]
Benzene [5]: **89.3** [1Q 2013]
Ethylbenzene [700]: <1.7U [1Q 2013]
Methyl chloride [19]: <1.6U [1Q 2013]
Methyl tert-butyl ether [20]: **156** [1Q 2013]
Toluene[1000]: <1.2U [1Q 2013]
Xylene (total) [10000]: <3.3U [1Q 2013]

MW-003R
1,2-Dichloroethane [5]: <0.32U [1Q 2013]
Benzene [5]: **70.8** [1Q 2013]
Ethylbenzene [700]: 10 [1Q 2013]
Methyl chloride [19]: 7 [1Q 2013]
Methyl tert-butyl ether [20]: 17.7 [1Q 2013]
Toluene [1000]: 9 [1Q 2013]
Xylene (total) [10000]: 71.8 [1Q 2013]

MW-003
1,2-Dichloroethane [5]: <1.6U [1Q 2013]
Benzene [5]: **12.1** [1Q 2013]
Ethylbenzene [700]: 322 [1Q 2013]
Methyl chloride [19]: 2.7J [1Q 2013]
Methyl tert-butyl ether [20]: 2J [1Q 2013]
Toluene [1000]: 237 [1Q 2013]
Xylene (total) [10000]: 1710 [1Q 2013]

MW-008D
1,2-Dichloroethane [5]: <0.32U [1Q 2013]
Benzene [5]: <0.23U [1Q 2013]
Ethylbenzene [700]: <0.34U [1Q 2013]
Methyl chloride [19]: <0.31U [1Q 2013]
Methyl tert-butyl ether [20]: 0.55J [1Q 2013]
Toluene [1000]: 0.38J [1Q2013]
Xylene (total) [10000]: <0.66U [1Q 2013]

MW-008
1,2-Dichloroethane [5]: **6.5** [1Q 2013]
Benzene [5]: **418** [1Q 2013]
Ethylbenzene [700]: 139 [1Q 2013]
Methyl chloride [19]: <1.6U [1Q 2013]
Methyl tert-butyl ether [20]: **550** [1Q 2013]
Toluene [1000]: 11.9 [1Q 2013]
Xylene (total) [10000]: 30.9 [1Q 2013]

MW-002
1,2-Dichloroethane [5]: <0.32U [1Q 2013]
Benzene [5]: **42.4** [1Q 2013]
Ethylbenzene [700]: 0.47J [1Q 2013]
Methyl chloride [19]: <0.31U [1Q 2013]
Methyl tert-butyl ether [20]: 18.8 [1Q 2013]
Toluene [1000]: <0.23U[1Q 2013]
Xylene (total) [10000]: 2.3J [1Q 2013]

MW-006
1,2-Dichloroethane [5]: <0.32U [1Q 2013]
Benzene [5]: **23.9** [1Q 2013]
Ethylbenzene [700]: 6.6 [1Q 2013]
Methyl chloride [19]: <0.31U [1Q 2013]
Methyl tert-butyl ether [20]: 1.5 [1Q 2013]
Toluene [1000]: 3 [1Q 2013]
Xylene (total) [10000]: 16 [1Q 2013]

Figure 9: GROUNDWATER CONTAMINANT DISTRIBUTION MAP (March 7-8, 2013)

Monitoring Well ● Leak Detection Wells ◈ Lost/Abandoned Monitoring Well ⊕ Potable Well ▭ Site Boundary

LABEL LEGEND:
Concentration (ppb) — Sample Date
B-017
Toluene (100): **270** [2Q 2004] / ND [3Q 2004]
Groundwater Cleanup Standard (ppb)

ND - Concentration Not Detected Above Laboratory Reporting Limits
Exceedences of the Regulatory Standard Printed in bold

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 50 feet
0 12.5 25 50 75 100 Feet

PROJECT NAME: *CALVERT CITGO*
PROJECT ADDRESS: *2815 NORTH EAST ROAD, NORTH EAST, MD*
PROJECT NUMBER: *005977*
DATE: *APRIL 2013*

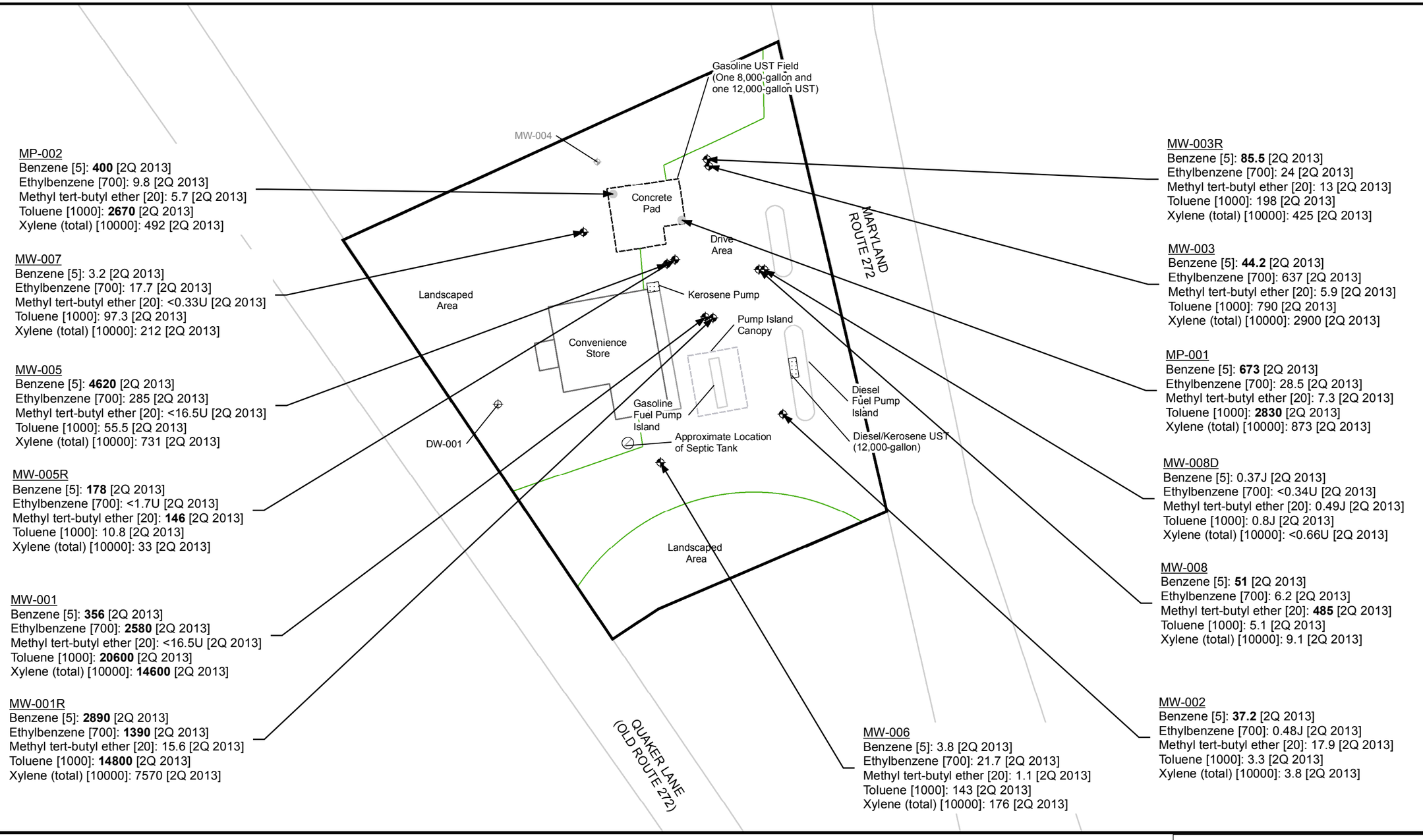


Figure 10: GROUNDWATER CONTAMINANT DISTRIBUTION MAP (March 7-8, 2013)

Monitoring Well · Leak Detection Wells · Lost/Abandoned Monitoring Well · Potable Well · Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 50 feet

0 12.5 25 50 75 100 Feet

PROJECT NAME:	***CALVERT CITGO***
PROJECT ADDRESS:	***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER:	***005977***
DATE:	***APRIL 2013***

LABEL LEGEND:

Concentration (ppb) — Sample Date

B-017
Toluene (100): **270** [2Q 2004] / ND [3Q 2004]

Groundwater Cleanup Standard (ppb)

ND - Concentration Not Detected Above Laboratory Reporting Limits
Exceedences of the Regulatory Standard Printed in bold

N
S

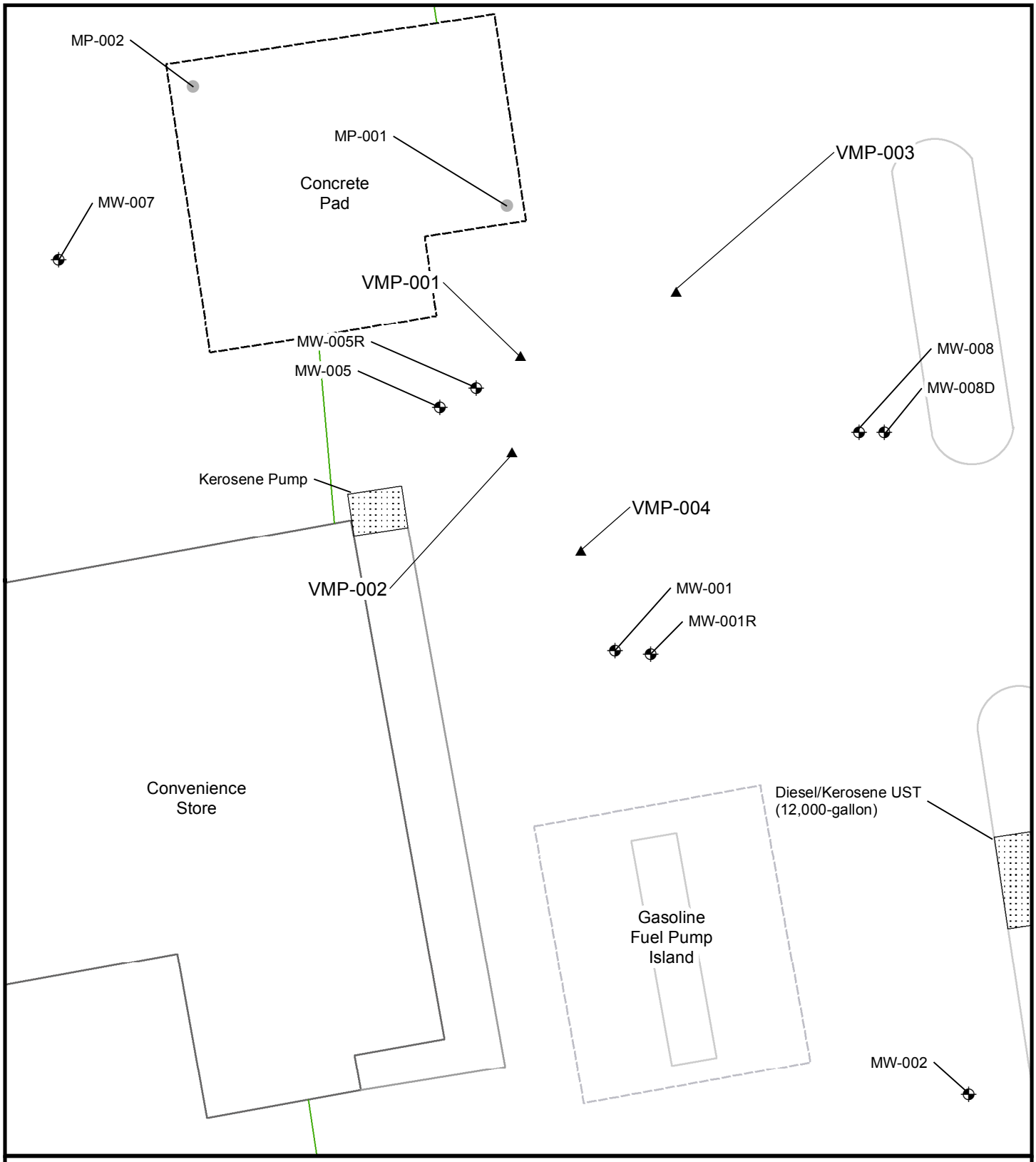


Figure 11: Vapor Monitoring Point Locations

▲ Vapor Monitoring Points ● Leak Detection Well ⊕ Potable Well

◈ Lost/Abandoned Monitoring Well ◈ Monitoring Well ▭ Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3.25 6.5 13 19.5 26 Feet

PROJECT NAME: CALVERT CITGO

PROJECT ADDRESS: 2815 NORTH EAST ROAD, NORTH EAST, MD

PROJECT NUMBER: 005977

DATE: APRIL 2013

N

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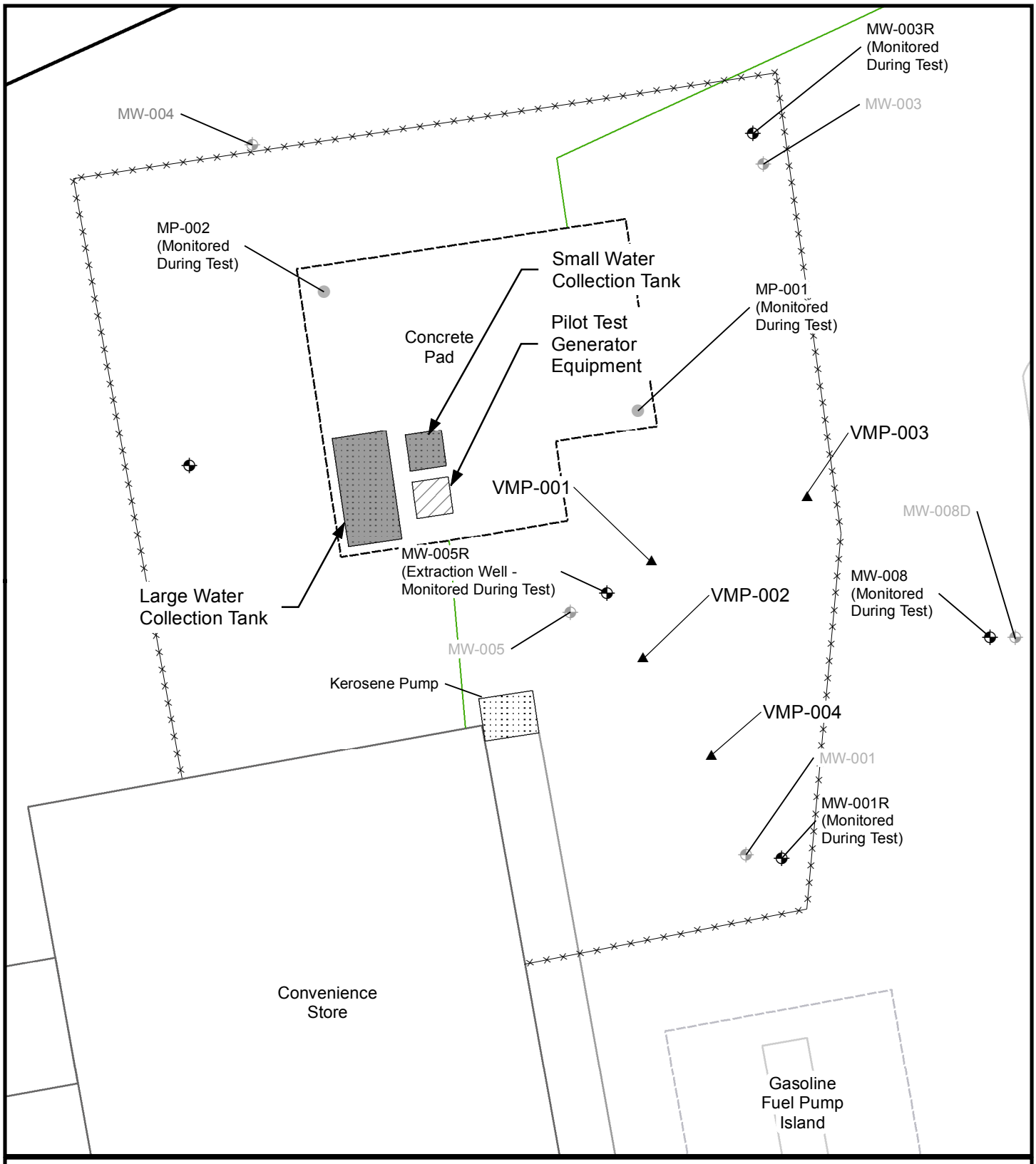

Figure 12: Pilot Test System Setup Schematic

▲ Vapor Monitoring Points
● Leak Detection Well
Monitoring Wel (Monitored During Test)l
Monitoring Wel (Not Monitored During Test)l
Potable Well
Pilot Test Fencing
Pilot Test Water Collection Tank
Pilot Test Generator
Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3.25 6.5 13 19.5 26 Feet

PROJECT NAME: CALVERT CITGO
PROJECT ADDRESS: 2815 NORTH EAST ROAD, NORTH EAST, MD
PROJECT NUMBER: 005977
DATE: APRIL 2013

N
S

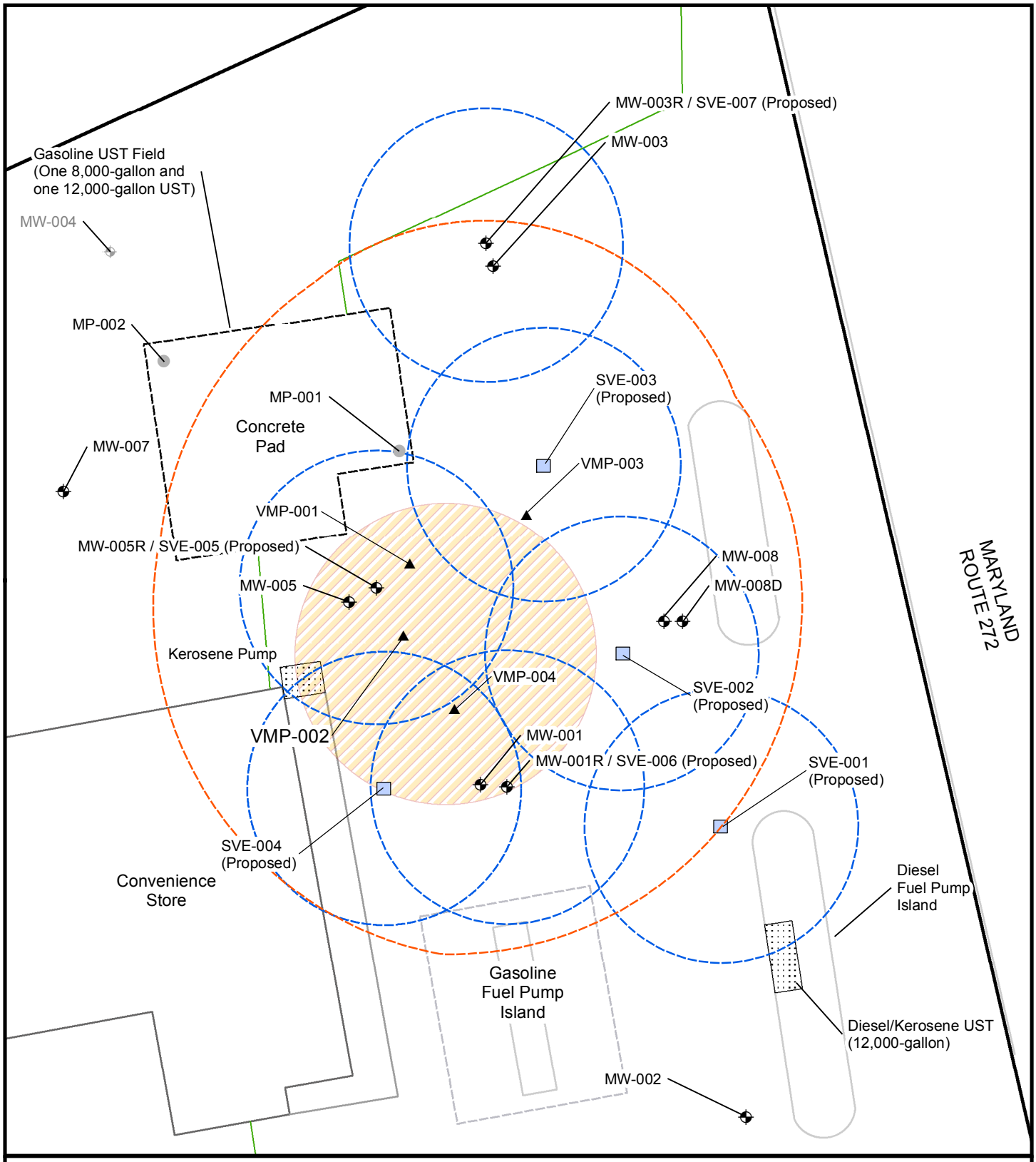

Figure 13: Treatment Area and Remedial System Layout

- Vapor Monitoring Points
- Lost/Abandoned Monitoring Well
- Leak Detection Well
- Monitoring Well
- Potable Well
- Soil Treatment Area (Primary)
- Radius of Influence of DPE
- Proposed Additional Soil Vapor Extraction Locatio
- Soil Treatment Area (Secondary)
- Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 20 feet

0 4.25 8.5 17 25.5 34 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

N
S

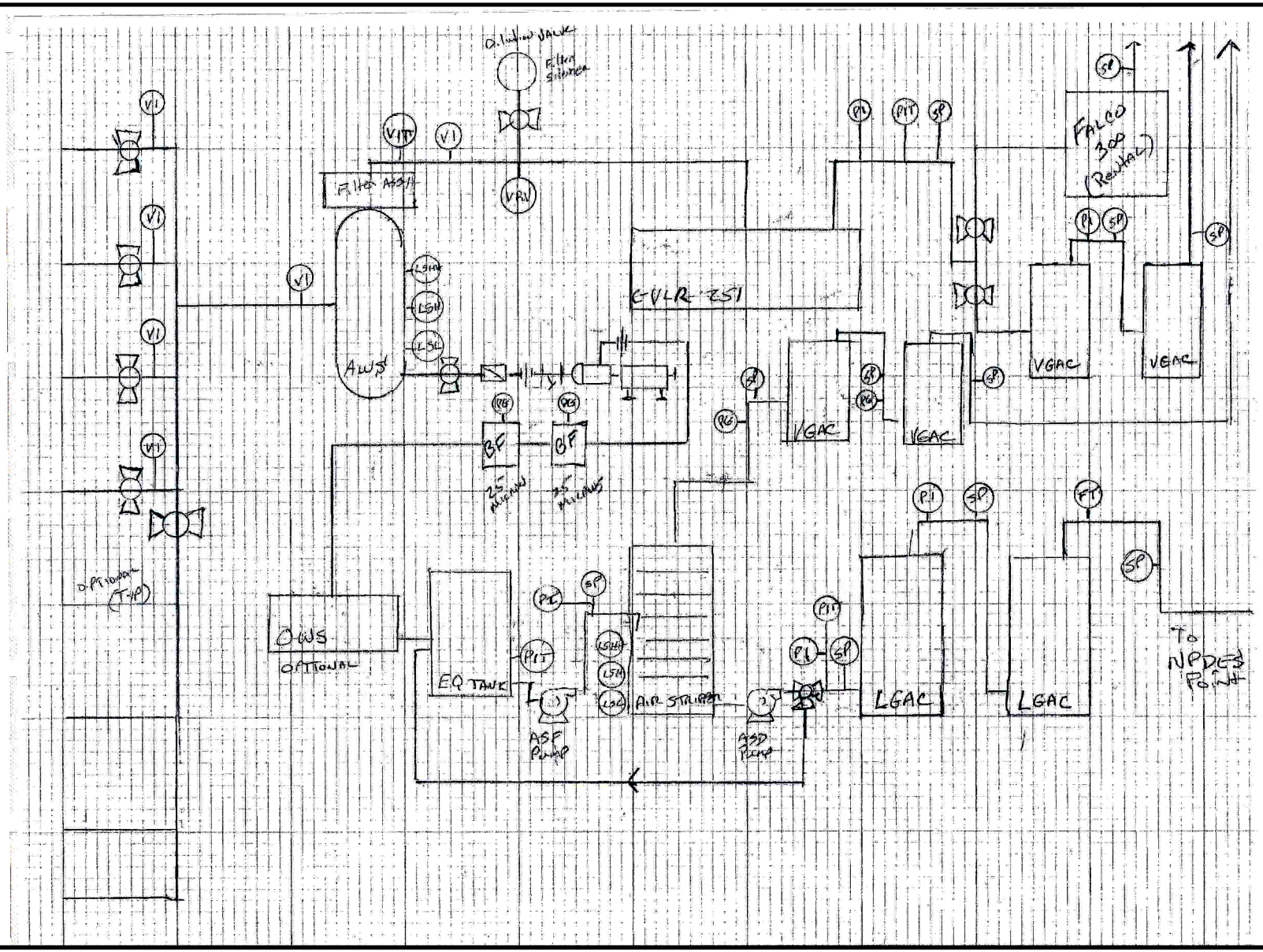

Figure 14: Process & Instrumentation Diagram

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE:
NOT TO SCALE

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

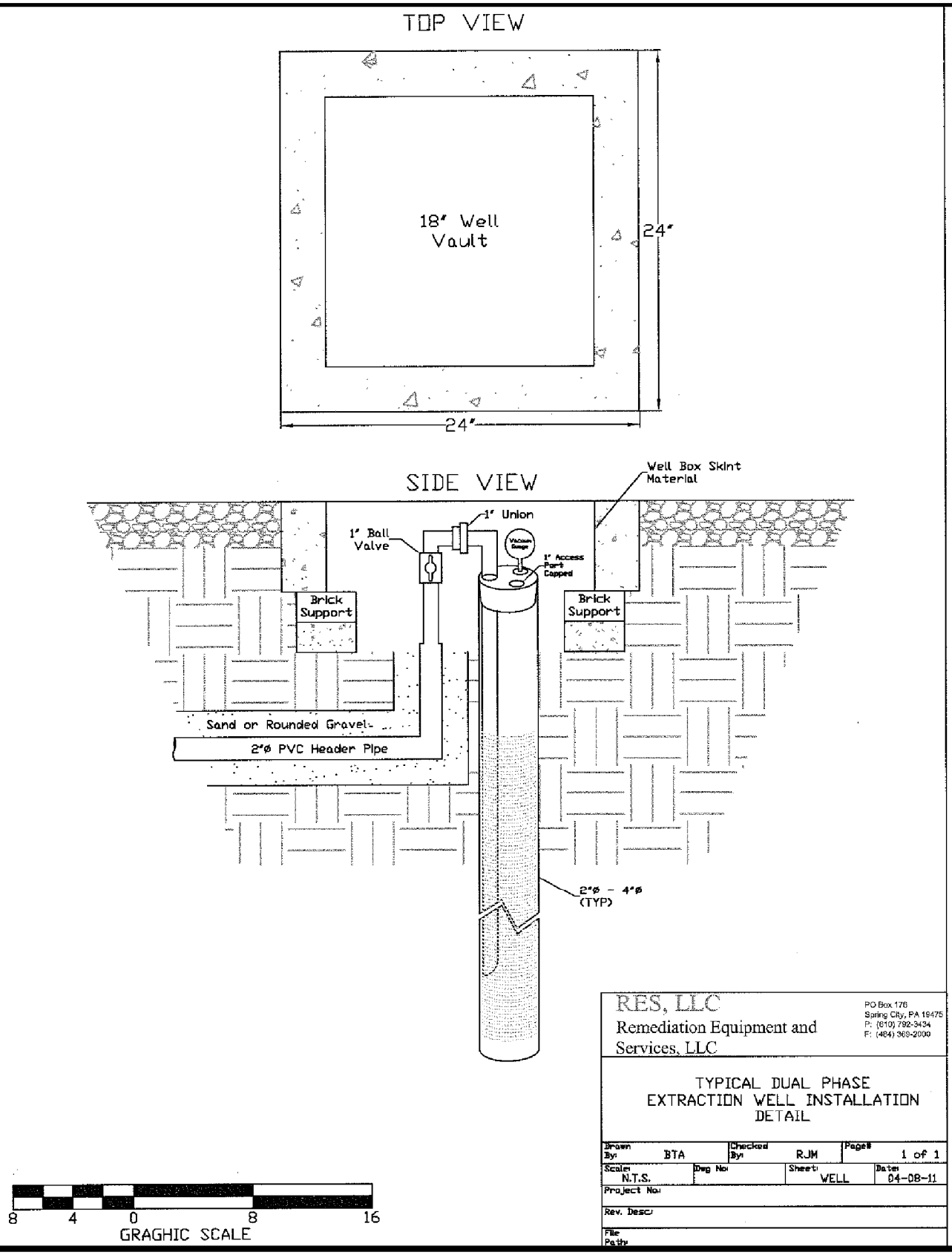

Figure 15: Typical Design of the Multiphase Extraction Wells

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE:
NOT TO SCALE

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***APRIL 2013***

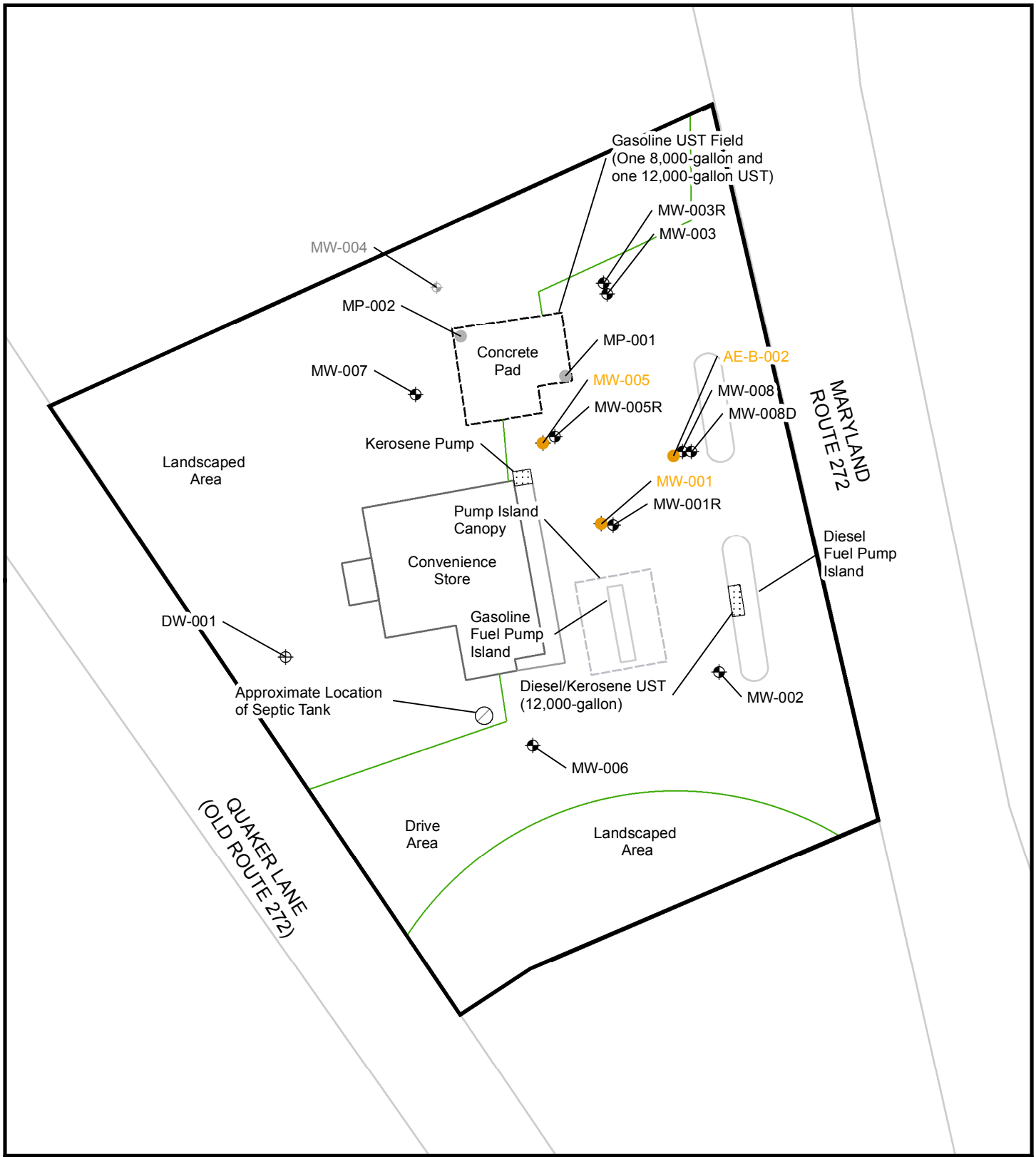

Figure 16: Historic LPH Locations

Location of Historic LPH Identification | Leak Detection Well | Potable Well

Lost/Abandoned Monitoring Well | Monitoring Well | Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 45 feet

0 10 20 40 60 80 Feet

PROJECT NAME: ***CALVERT CITGO***

PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***

PROJECT NUMBER: ***005977***

DATE: ***APRIL 2013***

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ATTACHMENT 2: VAPOR POINT AND WELL CONSTRUCTION LOGS

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: MW-001R

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

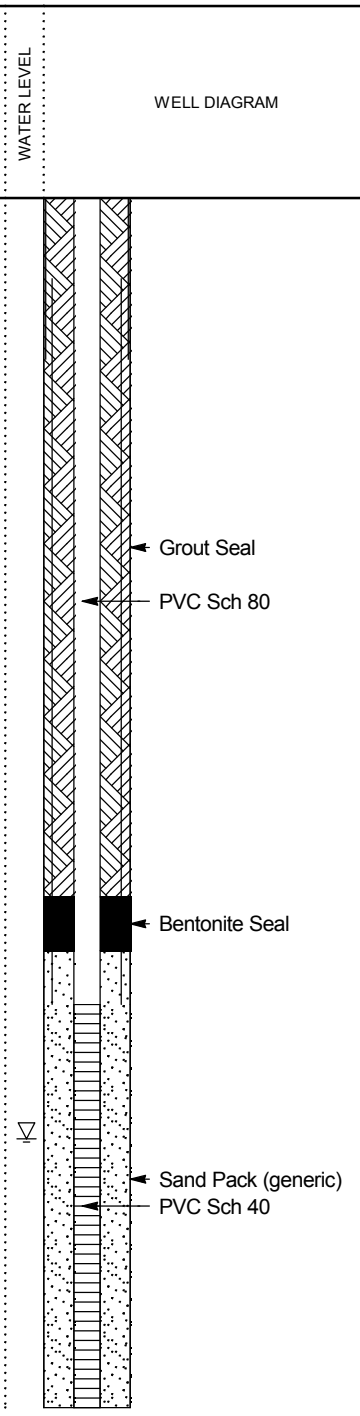
Installation Date: 11/10/10
Drilling Contractor: BL Meyers
Drilling Method: Hollow Stem Auger
Logged By: J.Crooks
Notes:

Borehole Dm.: 4 in.
Total Depth: 45 ft.
Water Level (ATD): 35 ft.
Water Level (AD): NA

North (ft): 741387
East (ft): 1599570.6

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0						0			0.5 (ASPHALT) Asphalt
2.0						0			(CL-ML) Low Plasticity Silty Clay brown and orange, dense, moist
4.0						0			
6.0						0			
8.0						0			
10.0						0			
12.0						0			
14.0						0			13.0 (ML) Silt brown, with schist, medium dense, dry
16.0						0			
18.0						28			18.0 (CH) High Plasticity Clay light brown and gray, dense, moist
20.0						28			
22.0						8			
24.0						8			
26.0						0			
28.0						0			
30.0						0			30.0 (ML) Silt light brown and light gray, with schist, dense, saturated
32.0						0			
34.0						0			
36.0						0			
38.0						0			
40.0						0			
42.0						0			
44.0						0			45.0



Bottom of borehole at 45 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: MW-003R

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

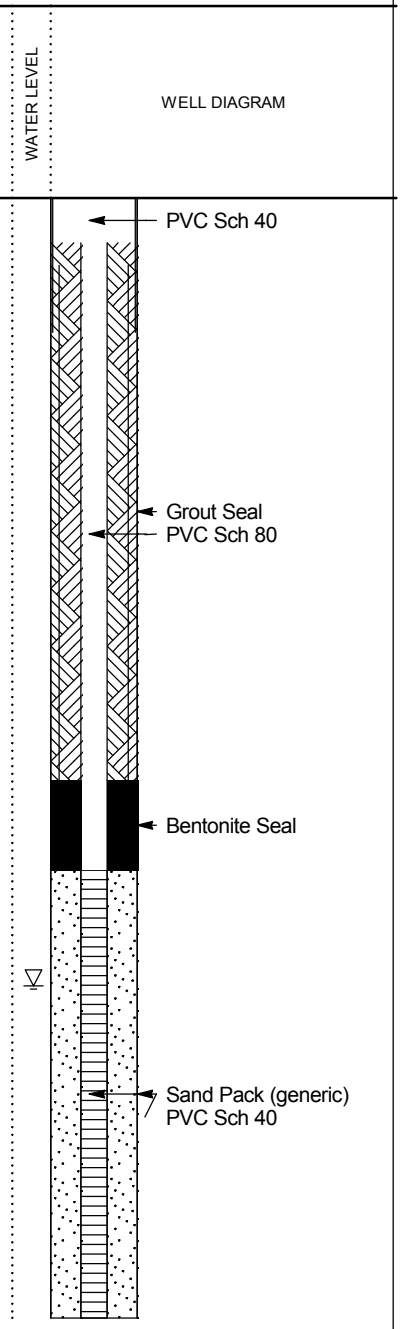
Installation Date: 11/11/10
Drilling Contractor: BL Meyers
Drilling Method: Hollow Stem Auger
Logged By: J.Crooks
Notes:

Borehole Dm.: 4 in.
Total Depth: 25 ft.
Water Level (ATD): 17.59 ft.
Water Level (AD): NA

North (ft): 741466.13
East (ft): 1599567

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0						0			0.5 (ASPHALT) Asphalt
						0			(CLS) Low Plasticity Sandy Clay light brown and brown, dense, dry
2.0						0			
						0			
4.0						0			
						0			
6.0						0			
						0			
8.0						0			
						0			
10.0						0			
						0			
12.0						0			
						0			
14.0						0			
						0			15.0
16.0						0			(CH) High Plasticity Clay brown and orange, dense, saturated
						0			
18.0						0			
						0			
20.0						0			
						0			
22.0						0			
						0			
24.0						0			25.0



Bottom of borehole at 25 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: MW-005R

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

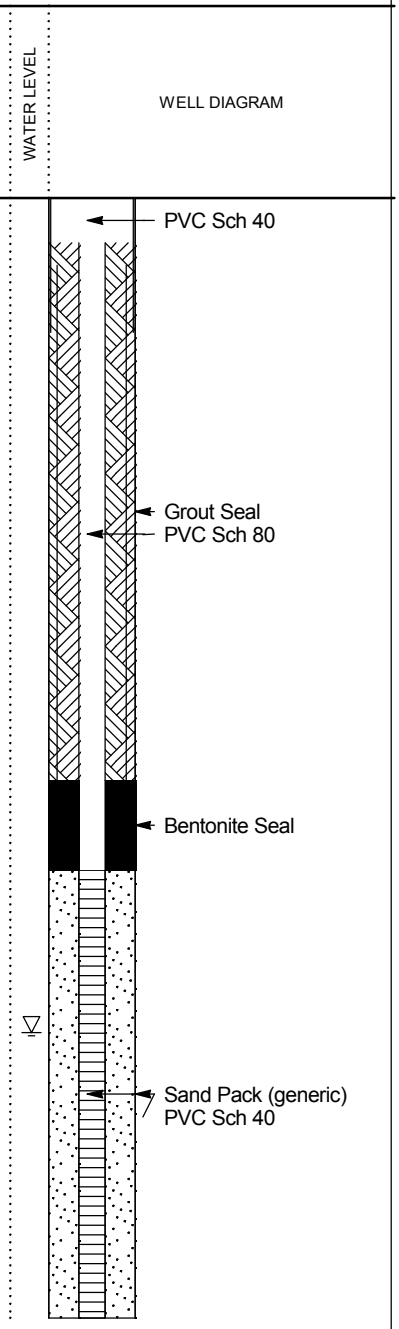
Installation Date: 11/11/10
Drilling Contractor: BL Meyers
Drilling Method: Hollow Stem Auger
Logged By: J.Crooks
Notes:

Borehole Dm.: 4 in.
Total Depth: 25 ft.
Water Level (ATD): 18.63 ft.
Water Level (AD): NA

North (ft): 741426.88
East (ft): 1599543.6

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0						0			0.5 (ASPHALT) Asphalt
						0			(CLS) Low Plasticity Sandy Clay brown and orange, dense, dry
2.0						0			
						0			
4.0						0			
						0			
6.0						0			
						0			
8.0						0			
						0			
10.0						0			
						0			
12.0						0			
						0			
14.0						0			
						0			15.0
16.0						0			(CLS) Low Plasticity Sandy Clay brown and orange, dense, saturated
						0			
18.0						0			
						0			
20.0						0			
						0			
22.0						0			
						0			
24.0						0			25.0



Bottom of borehole at 25 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: MW-008

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

Installation Date: 8/26/11
Drilling Contractor: BL Meyers
Drilling Method: Auger
Logged By: B.Musser
Notes:

Borehole Dm.: 2 in.
Total Depth: 75 ft.
Water Level (ATD): 55 ft.
Water Level (AD): NA

North (ft): 741122.38
East (ft): 1599635.3

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	WELL DIAGRAM
0.0											Casing Type: PVC Sch 40
2.0						0			(CL-ML) Low Plasticity Silty Clay brown, loose, dry		
4.0											
6.0											
8.0											
10.0											
12.0											
14.0											
16.0											
18.0											
20.0											
22.0											
24.0									23.0 (CL) Low Plasticity Clay light brown, medium dense, moist		
26.0											
28.0											Grout Seal
30.0											PVC Sch 80
32.0											
34.0											
36.0											
38.0											
40.0											
42.0											
44.0											
46.0											
48.0											
50.0											
52.0											
54.0											
56.0									55.0 (CL) Low Plasticity Clay brown, medium dense, saturated	▽	
58.0											
60.0											
62.0											
64.0											Sand Pack (generic)
66.0											PVC Sch 40
68.0											
70.0											
72.0											
74.0									75.0		

Bottom of borehole at 75 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: MW-008D

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

Installation Date: 8/8/11
Drilling Contractor: BL Meyers
Drilling Method: Air Rotary
Logged By: B.Musser
Notes:

Borehole Dm.: 6 in.
Total Depth: 125 ft.
Water Level (ATD): 120 ft.
Water Level (AD): NA

North (ft): 741122.38
East (ft): 1599638

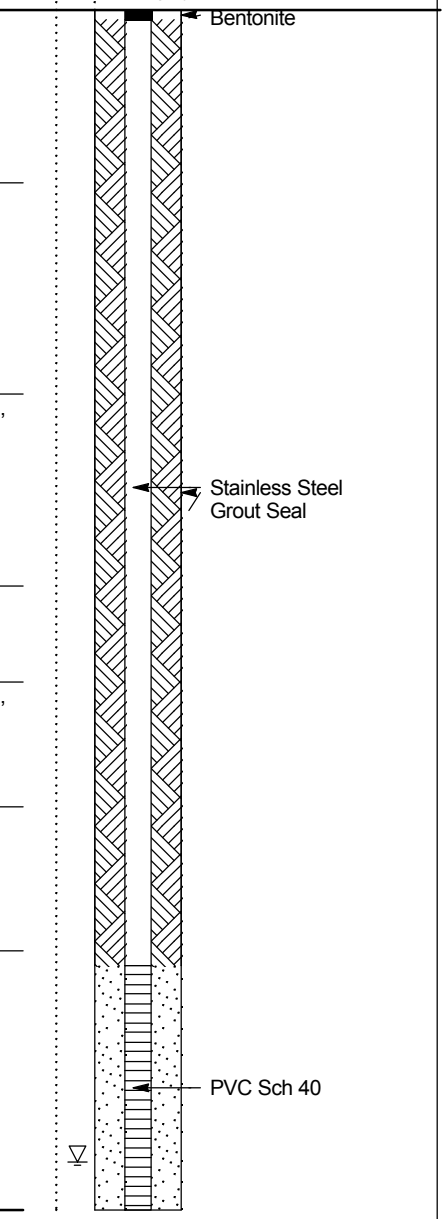
Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0									
2.0									(CL-ML) Low Plasticity Silty Clay brown, loose, dry
18.0									
20.0						18			(CL) Low Plasticity Clay light brown, medium dense, very moist
22.0						25			
24.0						50			
26.0						50			
28.0						18			
36.0						15.4			
40.0									
40.0									(CL) Low Plasticity Clay brown, medium dense, moist
46.0						37.8			
50.0						17.3			
56.0						9			
60.0						3.9			
60.0									(CL) with soft white/green material
70.0						2.7			
70.0									(CL) Low Plasticity Clay brown, medium dense, saturated
83.0									(BEDROCK) (broken, non-competant rock)
98.0									(BEDROCK) (competant rock)
125.0									

Competant Bedrock at 98 ft.
Bottom of borehole at 125 ft.

WATER LEVEL

WELL DIAGRAM



REPSG
React Environmental
Professional Services Group, Inc.

Well ID: VMP-001

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

Installation Date: 03/07/2013
Drilling Contractor: Enviroprobe Service Inc.
Drilling Method: Geoprobe
Logged By: B.Musser
Notes:

Borehole Dm.: 1 in.
Total Depth: 25 ft.
Water Level (ATD): None Observed
Water Level (AD): NA

North (ft): 741130.75
East (ft): 1599598.1

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	WELL DIAGRAM
0.0						0			0.5 (ASPHALT) Asphalt		Concrete Seal
						0			1.0 (ML) Silt dark gray with clayey silt, dense, moist		
2.0		S-1	97%			0			(ML) Silt brown with clayey silt, dense, moist		Bentonite Seal
						0					PVC Sch 80
4.0						0			3.5 (ML) Silt orangeish brown with clayey silt, medium dense, moist		
6.0						17.2					
		S-2	100%			13.9			7.0 (ML) Silt light gray to orangeish brown with clayey silt, medium dense, moist		
8.0						355			8.5		
						318			9.0 (ML) Silt dark brown to orange with clayey silt, medium dense, moist		
10.0						797			10.0 (ML) Silt light brown to orange with clayey silt, medium dense, moist		
						15.7			11.0		
12.0		S-3	100%			63			(ML) Silt brown with clayey silt, dense, moist		
						2041			(ML) Silt light brown to light gray, medium dense, moist		
14.0						1724					Sand Pack (generic)
						1329					PVC Sch 40
16.0						290					
		S-4	100%			1732					
18.0						684			17.5 (CL-ML) Low Plasticity Silty Clay light brown to light gray, medium dense, wet		
20.0						620					
						1415					
22.0						1097			21.5		
		S-5	100%			1097			(CL-ML) Low Plasticity Silty Clay brownish orange, medium dense, wet		
24.0						330					
						368					
						123			25.0		

Bottom of borehole at 25 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: VMP-002

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

Installation Date: 03/07/2013
Drilling Contractor: Enviroprobe Service Inc.
Drilling Method: Hollow Stem Auger
Logged By: B.Musser

Borehole Dm.: 2 in.
Total Depth: 25 ft.
Water Level (ATD): 20 ft.
Water Level (AD): NA

North (ft): 741120.19
East (ft): 1599597.3

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

Notes: Geotech sample collected at 13-15 fbg and 20-22 fbg

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	WELL DIAGRAM
0.0						0			0.5 (ASPHALT) Asphalt		Concrete Seal
						0			(MLS) Sandy Silt gray, medium dense, moist		
2.0						0					Bentonite Seal
						0					PVC Sch 80
4.0						0					
						0			5.0		
6.0						0			(MLS) Sandy Silt light brown, medium dense, moist		
						0					
8.0						600					
						600					
10.0						600					
						600					
12.0						600					
						600			13.0		
14.0						1100			(MLS) Sandy Silt brown to gray, medium dense, moist		Sand Pack (generic)
						1100					PVC Sch 40
16.0						1100					
						1100					
18.0						1100					
						1100					
20.0						1100			20.0	▽	
						450			(CL-ML) Low Plasticity Silty Clay dark gray, medium dense, saturated		
22.0						450					
						450					
24.0						450			25.0		

Bottom of borehole at 25 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: VMP-003

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

Installation Date: 03/07/2013
Drilling Contractor: Enviroprobe Service Inc.
Drilling Method: Geoprobe
Logged By: B.Musser
Notes:

Borehole Dm.: 1 in.
Total Depth: 25 ft.
Water Level (ATD): 20 ft.
Water Level (AD): NA

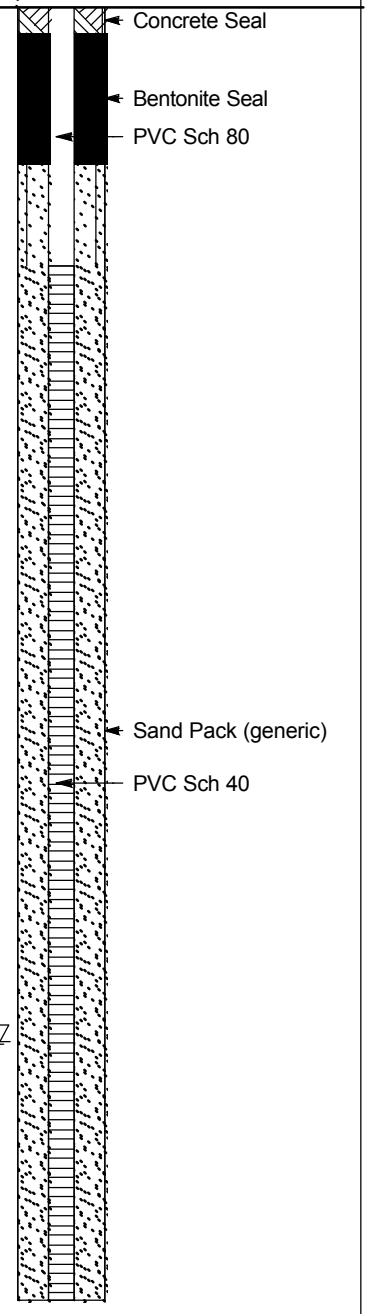
North (ft): 741137.81
East (ft): 1599615.3

Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0						0			0.5 (ASPHALT) Asphalt
						0			1.5 (ML) Silt gray with clayey silt, dense, moist
2.0		S-1	100%			0			2.5 (ML) Silt brown with clayey silt, dense, moist
						0			(ML) Silt brown with clayey silt, dense, moist
4.0						0			
						0			5.0 (ML) Silt light brown with clayey silt, medium dense, moist
6.0						0			
		S-2	100%			128			7.5 (ML) Silt brown with clayey silt, medium dense, moist
8.0						638			9.0 (CL-ML) Low Plasticity Silty Clay brown, dense, moist
10.0						373			
						593			
12.0						412			12.5 (ML) Silt light brown with clayey silt, medium dense, moist
		S-3	100%			1223			
14.0						1684			
						1451			
16.0						366			
						1533			17.0 (ML) Silt orange with clayey silt, loose, moist
18.0		S-4	100%			881			17.5 (ML) Silt brown to orange with clayey silt, medium dense, wet
						1303			
20.0						1299			20.0 (ML) Silt light brown to orange with clayey silt, loose, saturated
						401			
22.0						897			
		S-5	100%			193			
24.0						210			
						200			24.5 (CL-ML) Low Plasticity Silty Clay light brown, dense, wet 25.0

WATER LEVEL

WELL DIAGRAM



Bottom of borehole at 25 ft.

REPSG
React Environmental
Professional Services Group, Inc.

Well ID: VMP-004

Calvert Citgo 2815 Northeast Rd
REPSG Project No.: 005977

Installation Date: 03/07/2013
Drilling Contractor: Enviroprobe Service Inc.
Drilling Method: Geoprobe
Logged By: B.Musser
Notes:

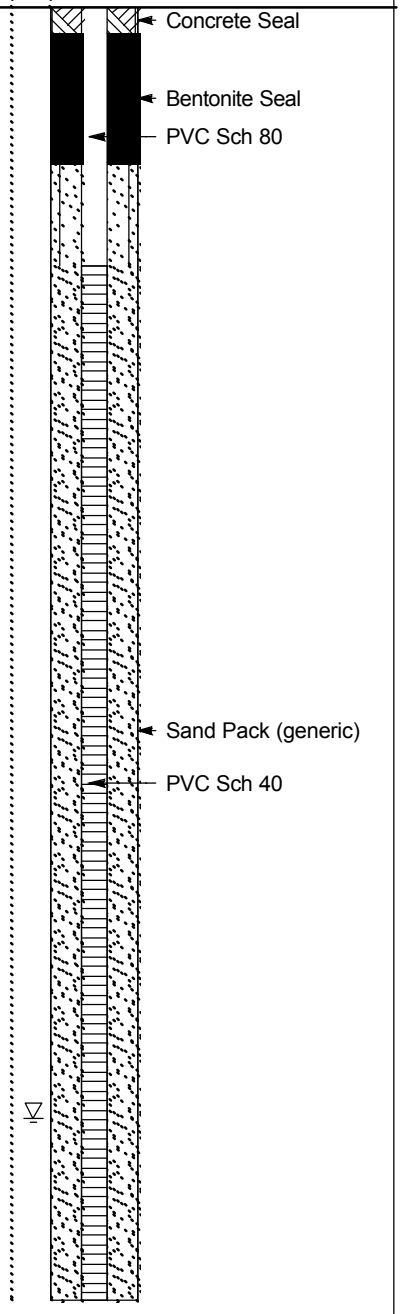
Borehole Dm.: 1 in.
Total Depth: 25 ft.
Water Level (ATD): 21.5 ft.
Water Level (AD): NA

North (ft): 741109.5
East (ft): 1599604.8
Surface Elevation (ft.): NA
NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

DEPTH (ft)	ELEV (ft)	CORE SAMPLE	RECOVERY	REMARKS	FID (ppm)	PID (ppm)	GRAB SAMPLE	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0						0			0.5 (ASPHALT) Asphalt
						0			(ML) Silt dark gray with clayey silt, dense, moist
2.0		S-1	100%			0			1.5 (ML) Silt brownish orange with clayey silt, dense, moist
						0			
4.0						0			
						0			5.5
6.0						16.2			(ML) Silt brown to gray with clayey silt, dense, moist
		S-2	100%			49.6			7.5
8.0						70			(ML) Silt light gray to brown with clayey silt, medium dense, moist
						597			9.0 (ML) Silt light brown with clayey silt, medium dense, moist
10.0						1060			10.0 (ML) Silt orange with clayey silt, medium dense, moist
						770			
12.0						1720			
		S-3	100%			1917			
14.0						1933			
						1352			15.0 (ML) Silt light brown to orange, medium dense, moist
16.0						1228			
						1774			17.0 (ML) Silt brown to orange with clayey silt, medium dense, moist
18.0		S-4	100%			224			18.5 (CL-ML) Low Plasticity Silty Clay light gray to brown, dense, moist
						195			
20.0						480			
						1660			21.5
22.0						350			22.0 (CL-ML) Low Plasticity Silty Clay light brown, loose, saturated
		S-5	100%			205			(CL-ML) Low Plasticity Silty Clay brown to orange, dense, wet
24.0						139			
						149			25.0

Bottom of borehole at 25 ft.

WELL DIAGRAM



ATTACHMENT 3: ADDITIONAL TABLES

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Soil**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/07/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Soil, Non-Residential Cleanup Standard, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	VMP-001	VMP-003
			Date:	03/07/2013	03/07/2013
			Depth (ft):	9.5-10	9.5-10
Petroleum Screening Parameters					
Diesel Range Organics (DRO)	mg/kg	620		19	16
Gasoline Range ORGANICS(GRO)	mg/kg	620		100*	210*
Volatile Organic Compounds (VOCs)					
1,1,1-trichloroethane	mg/kg	200000		<0.0078U	<0.0081U
1,1,2,2-Tetrachloroethane	mg/kg	14		<0.02U	<0.021U
1,1,2-Trichloroethane	mg/kg	50		<0.024U	<0.024U
1,1-Dichloroethane	mg/kg	20000		<0.016U	<0.017U
1,1-Dichloroethylene	mg/kg	5100		<0.011U	<0.012U
1,2-Dichloroethane	mg/kg	31		<0.024U	<0.025U
1,2-Dichloropropane	mg/kg	42		<0.011U	<0.011U
2-Hexanone	mg/kg	**		<0.063U	<0.065U
Acetone	mg/kg	92000		<0.34U	<0.35U
Benzene	mg/kg	52		0.72	5.5
Bromodichloromethane	mg/kg	46		<0.016U	<0.016U
Bromoform	mg/kg	360		<0.024U	<0.025U
Carbon disulfide	mg/kg	10000		<0.016U	<0.016U
Carbon tetrachloride	mg/kg	22		<0.0072U	<0.0074U
Chlorobenzene	mg/kg	2000		<0.014U	<0.014U
Chloroethane	mg/kg	990		<0.021U	<0.022U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Soil**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/07/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Soil, Non-Residential Cleanup Standard, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	VMP-001	VMP-003
			Date:	03/07/2013	03/07/2013
			Depth (ft):	9.5-10	9.5-10
Chloroform	mg/kg	1000		<0.0099U	<0.01U
cis-1,2-Dichloroethylene	mg/kg	1000		<0.022U	<0.023U
cis-1,3-Dichloropropene	mg/kg	29		<0.023U	<0.024U
Dibromochloromethane	mg/kg	34		<0.025U	<0.026U
Ethylbenzene	mg/kg	10000		7	2.3
Methyl bromide	mg/kg	140		<0.023U	<0.024U
Methyl chloride	mg/kg	**		<0.012U	<0.013U
Methyl ethyl ketone	mg/kg	61000		<0.29U	1.5
Methyl isobutylketone (MIBK)	mg/kg	**		<0.12U	<0.13U
Methylene chloride	mg/kg	380		<0.023U	<0.024U
Styrene	mg/kg	20000		<0.015U	<0.015U
Tetrachloroethylene	mg/kg	5.3		<0.012U	<0.013U
Toluene	mg/kg	8200		12	14
trans-1,2-Di-chloroethylene	mg/kg	2000		<0.016U	<0.017U
trans-1,3-Dichloropropene	mg/kg	29		<0.031U	<0.032U
Trichloroethylene	mg/kg	7.2		<0.012U	<0.012U
Vinyl chloride	mg/kg	4		<0.018U	<0.019U
Xylene (total)	mg/kg	20000		38	11

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Soil**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/07/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Soil, Protection of Groundwater, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	VMP-001	VMP-003
			Date:	03/07/2013	03/07/2013
			Depth (ft):	9.5-10	9.5-10
Petroleum Screening Parameters					
Diesel Range Organics (DRO)	mg/kg	**		19	16
Gasoline Range ORGANICS(GRO)	mg/kg	**		100*	210*
Volatile Organic Compounds (VOCs)					
1,1,1-trichloroethane	mg/kg	32		<0.0078U	<0.0081U
1,1,2,2-Tetrachloroethane	mg/kg	0.00068		<0.02U#	<0.021U#
1,1,2-Trichloroethane	mg/kg	0.00078		<0.024U#	<0.024U#
1,1-Dichloroethane	mg/kg	5.1		<0.016U	<0.017U
1,1-Dichloroethylene	mg/kg	2.9		<0.011U	<0.012U
1,2-Dichloroethane	mg/kg	0.001		<0.024U#	<0.025U#
1,2-Dichloropropane	mg/kg	0.0034		<0.011U#	<0.011U#
2-Hexanone	mg/kg	**		<0.063U	<0.065U
Acetone	mg/kg	22		<0.34U	<0.35U
Benzene	mg/kg	0.0019		**0.72**	**5.5**
Bromodichloromethane	mg/kg	0.0011		<0.016U#	<0.016U#
Bromoform	mg/kg	0.067		<0.024U	<0.025U
Carbon disulfide	mg/kg	19		<0.016U	<0.016U
Carbon tetrachloride	mg/kg	0.0021		<0.0072U#	<0.0074U#
Chlorobenzene	mg/kg	0.68		<0.014U	<0.014U
Chloroethane	mg/kg	0.019		<0.021U#	<0.022U#

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Soil**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/07/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Soil, Protection of Groundwater, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	VMP-001	VMP-003
			Date:	03/07/2013	03/07/2013
			Depth (ft):	9.5-10	9.5-10
Chloroform	mg/kg	0.00091		<0.0099U#	<0.01U#
cis-1,2-Dichloroethylene	mg/kg	**		<0.022U	<0.023U
cis-1,3-Dichloropropene	mg/kg	0.0031		<0.023U#	<0.024U#
Dibromochloromethane	mg/kg	0.00083		<0.025U#	<0.026U#
Ethylbenzene	mg/kg	15		7	2.3
Methyl bromide	mg/kg	0.041		<0.023U	<0.024U
Methyl chloride	mg/kg	0.93		<0.012U	<0.013U
Methyl ethyl ketone	mg/kg	29		<0.29U	1.5
Methyl isobutylketone (MIBK)	mg/kg	59		<0.12U	<0.13U
Methylene chloride	mg/kg	0.019		<0.023U#	<0.024U#
Styrene	mg/kg	57		<0.015U	<0.015U
Tetrachloroethylene	mg/kg	0.0047		<0.012U#	<0.013U#
Toluene	mg/kg	27		12	14
trans-1,2-Di-chloroethylene	mg/kg	0.72		<0.016U	<0.017U
trans-1,3-Dichloropropene	mg/kg	0.0031		<0.031U#	<0.032U#
Trichloroethylene	mg/kg	0.00026		<0.012U#	<0.012U#
Vinyl chloride	mg/kg	0.00012		<0.018U#	<0.019U#
Xylene (total)	mg/kg	3		**38**	**11**

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/15/2012-11/16/2012**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-001	MW-001R	MW-002	MW-003	MW-003R	MW-005
			Date:	11/15/2012	11/15/2012	11/16/2012	11/15/2012	11/15/2012	11/15/2012
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<1.5U#	<1.5U#	<1.5U#	<7.5U#	<1.5U#	<7.5U#
Dichlorofluoromethane	ug/l	**		<0.37U	<0.37U	<0.37U	<1.9U	<0.37U	2.6J
Tert-Amyl Methyl Ether	ug/l	**		<0.2U	<0.2U	<0.2U	<1U	0.84J	<1U
Petroleum Screening Parameters									
Diesel Range Organics (DRO)	ug/l	47		**2400**	**920**	**390**	**4200**	**1700**	**11200**
Gasoline Range ORGANICS(GRO)	ug/l	47		**19600**	**1080**	**180**	**19600**	**2240**	**133000**
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<0.22U	<0.22U	<0.22U	<1.1U	<0.22U	<1.1U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#	<0.34U#	<0.34U#	<1.7U#	<0.34U#	<1.7U#
1,1,2-Trichloroethane	ug/l	5		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U	<1.7U
1,1-Dichloroethane	ug/l	90		<0.28U	<0.28U	<0.28U	<1.4U	<0.28U	<1.4U
1,1-Dichloroethylene	ug/l	7		<0.29U	<0.29U	<0.29U	<1.5U	<0.29U	<1.5U
1,2-Dibromoethane	ug/l	0.05		<0.28U#	<0.28U#	<0.28U#	<1.4U#	<0.28U#	<1.4U#
1,2-Dichloroethane	ug/l	5		**8.5**	**114**	<0.32U	<1.6U	<0.32U	<1.6U
1,2-Dichloropropane	ug/l	5		<0.24U	<0.24U	<0.24U	<1.2U	<0.24U	<1.2U
2-Hexanone	ug/l	**		<1.3U	<1.3U	<1.3U	<6.5U	<1.3U	<6.5U
Acetone	ug/l	550		<3.1U	<3.1U	<3.1U	105	<3.1U	**763**
Benzene	ug/l	5		**14500**	**81.9**	**48.6**	**66.1**	**152**	**475**
Bromodichloromethane	ug/l	80		<0.27U	<0.27U	<0.27U	<1.4U	<0.27U	<1.4U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/15/2012-11/16/2012**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-001	MW-001R	MW-002	MW-003	MW-003R	MW-005
			Date:	11/15/2012	11/15/2012	11/16/2012	11/15/2012	11/15/2012	11/15/2012
			Depth (ft):	0	0	0	0	0	0
Bromoform	ug/l	80		<0.4U	<0.4U	<0.4U	<2U	<0.4U	<2U
Carbon disulfide	ug/l	100		<0.23U	<0.23U	<0.23U	<1.2U	<0.23U	<1.2U
Carbon tetrachloride	ug/l	5		<0.31U	<0.31U	<0.31U	<1.6U	<0.31U	<1.6U
Chlorobenzene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.95U	<0.19U	<0.95U
Chlorobromomethane	ug/l	**		<0.32U	<0.32U	<0.32U	<1.6U	<0.32U	<1.6U
Chloroethane	ug/l	3.6		0.61J	<0.33U	<0.33U	<1.7U	0.34J	<1.7U
Chloroform	ug/l	80		<0.21U	<0.21U	<0.21U	<1.1U	<0.21U	<1.1U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U	<0.32U	<0.32U	<1.6U	<0.32U	<1.6U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U	<0.31U	<0.31U	<1.6U#	<0.31U	<1.6U#
Dibromochloromethane	ug/l	80		<0.45U	<0.45U	<0.45U	<2.3U	<0.45U	<2.3U
Dichlorodifluoromethane	ug/l	**		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U	<1.7U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	6.1	10.2	3.1J
Ethylbenzene	ug/l	700		**1590**	12.3	1.1	**1250**	56.6	**2940**
Isopropyl Ether	ug/l	**		19.5	26.5	<0.25U	<1.3U	2.6	<1.3U
m/p-xylene	ug/l	**		2460	42.5	2.1	4290	105	9990
Methyl bromide	ug/l	0.85		<0.39U	<0.39U	<0.39U	<2U#	<0.39U	<2U#
Methyl chloride	ug/l	19		<0.31U	<0.31U	<0.31U	7.3	<0.31U	<1.6U
Methyl ethyl ketone	ug/l	700		31	<1.8U	<1.8U	<9U	<1.8U	<9U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U	<1.5U	<1.5U	18.9J	6.5	175
Methyl tert-butyl ether	ug/l	20		**27.8**	**89**	17.6	7.2	17	14
Methylene chloride	ug/l	5		<0.45U	<0.45U	<0.45U	<2.3U	<0.45U	<2.3U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/15/2012-11/16/2012**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-001	MW-001R	MW-002	MW-003	MW-003R	MW-005
			Date:	11/15/2012	11/15/2012	11/16/2012	11/15/2012	11/15/2012	11/15/2012
			Depth (ft):	0	0	0	0	0	0
o-Xylene	ug/l	**		78	16.3	1	1620	82.2	4270
Styrene	ug/l	100		<0.24U	<0.24U	<0.24U	3.6J	0.35J	<1.2U
Tert-Amyl alcohol	ug/l	**		4720	2720	298	161	179	1510
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U	<0.29U	<0.29U	<1.5U	<0.29U	<1.5U
tert-Butylalcohol	ug/l	**		691	1360	206	322	296	433
Tetrachloroethylene	ug/l	5		<0.35U	<0.35U	<0.35U	<1.8U	<0.35U	<1.8U
Toluene	ug/l	1000		522	59.5	0.35J	816	79.9	**12800**
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U	<0.26U	<0.26U	<1.3U	<0.26U	<1.3U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U	<0.29U	<0.29U	<1.5U#	<0.29U	<1.5U#
Trichloroethylene	ug/l	5		<0.33U	<0.33U	1.1	<1.7U	<0.33U	<1.7U
Vinyl chloride	ug/l	2		<0.3U	<0.3U	<0.3U	<1.5U	<0.3U	<1.5U
Xylene (total)	ug/l	10000		2540	58.8	3.1	5910	187	**14300**

Constituent	Unit	*Standard	Location:	MW-005R	MW-006	MW-007	MW-008	MW-008D
			Date:	11/15/2012	11/15/2012	11/15/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0	0
Not Otherwise Specified								
DBCP	ug/l	0.2		<7.5U#	<1.5U#	<75U#	<15U#	<1.5U#
Dichlorofluoromethane	ug/l	**		<1.9U	<0.37U	<18.5U	<3.7U	<0.37U
Tert-Amyl Methyl Ether	ug/l	**		<1U	<0.2U	<10U	11.8	<0.2U

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Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/15/2012-11/16/2012**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-005R	MW-006	MW-007	MW-008	MW-008D
			Date:	11/15/2012	11/15/2012	11/15/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0	0
Petroleum Screening Parameters								
Diesel Range Organics (DRO)	ug/l	47		**9600**	**2100**	**1300**	**1300**	**280**
Gasoline Range ORGANICS(GRO)	ug/l	47		**140000**	**459**	**14900**	**3470**	<13.9U
Volatile Organic Compounds (VOCs)								
1,1,1-trichloroethane	ug/l	200		<1.1U	<0.22U	<11U	<2.2U	<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<1.7U#	<0.34U#	<17U#	<3.4U#	<0.34U#
1,1,2-Trichloroethane	ug/l	5		<1.7U	<0.33U	<16.5U#	<3.3U	<0.33U
1,1-Dichloroethane	ug/l	90		<1.4U	<0.28U	<14U	<2.8U	<0.28U
1,1-Dichloroethylene	ug/l	7		<1.5U	<0.29U	<14.5U#	<2.9U	<0.29U
1,2-Dibromoethane	ug/l	0.05		<1.4U#	<0.28U#	<14U#	<2.8U#	<0.28U#
1,2-Dichloroethane	ug/l	5		<1.6U	<0.32U	<16U#	<3.2U	<0.32U
1,2-Dichloropropane	ug/l	5		<1.2U	<0.24U	<12U#	<2.4U	<0.24U
2-Hexanone	ug/l	**		<6.5U	<1.3U	<65U	<13U	<1.3U
Acetone	ug/l	550		387	<3.1U	<155U	<31U	<3.1U
Benzene	ug/l	5		**8660**	0.77J	**430**	**449**	0.43J
Bromodichloromethane	ug/l	80		<1.4U	<0.27U	<13.5U	<2.7U	<0.27U
Bromoform	ug/l	80		<2U	<0.4U	<20U	<4U	<0.4U
Carbon disulfide	ug/l	100		<1.2U	<0.23U	<11.5U	<2.3U	<0.23U
Carbon tetrachloride	ug/l	5		<1.6U	<0.31U	<15.5U#	<3.1U	<0.31U
Chlorobenzene	ug/l	100		<0.95U	11.1	<9.5U	<1.9U	<0.19U
Chlorobromomethane	ug/l	**		<1.6U	<0.32U	<16U	<3.2U	<0.32U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/15/2012-11/16/2012**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-005R	MW-006	MW-007	MW-008	MW-008D
			Date:	11/15/2012	11/15/2012	11/15/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0	0
Chloroethane	ug/l	3.6		<1.7U	<0.33U	<16.5U#	<3.3U	<0.33U
Chloroform	ug/l	80		<1.1U	<0.21U	<10.5U	<2.1U	<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<1.6U	<0.32U	<16U	<3.2U	<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<1.6U#	<0.31U	<15.5U#	<3.1U#	<0.31U
Dibromochloromethane	ug/l	80		<2.3U	<0.45U	<22.5U	<4.5U	<0.45U
Dichlorodifluoromethane	ug/l	**		<1.7U	<0.33U	<16.5U	<3.3U	<0.33U
Ethyl tert-butyl ether	ug/l	**		4.3J	<0.19U	<9.5U	4.1J	<0.19U
Ethylbenzene	ug/l	700		**2740**	14.1	421	197	<0.34U
Isopropyl Ether	ug/l	**		<1.3U	<0.25U	<12.5U	8.6J	<0.25U
m/p-xylene	ug/l	**		10800	54.3	941	41.1	<0.52U
Methyl bromide	ug/l	0.85		<2U#	<0.39U	<19.5U#	<3.9U#	<0.39U
Methyl chloride	ug/l	19		<1.6U	<0.31U	<15.5U	<3.1U	<0.31U
Methyl ethyl ketone	ug/l	700		238	<1.8U	<90U	<18U	<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		214	<1.5U	<75U	<15U	<1.5U
Methyl tert-butyl ether	ug/l	20		8.7	2	<16.5U	**664**	0.75J
Methylene chloride	ug/l	5		<2.3U	<0.45U	<22.5U#	<4.5U	<0.45U
o-Xylene	ug/l	**		4240	22.1	785	<3.3U	<0.33U
Styrene	ug/l	100		20.6	<0.24U	<12U	<2.4U	<0.24U
Tert-Amyl alcohol	ug/l	**		1310	27.8	<330U	<66U	<6.6U
Tert-Amyl Ethyl Ether	ug/l	**		<1.5U	<0.29U	<14.5U	<2.9U	<0.29U
tert-Butylalcohol	ug/l	**		242	21.2	<110U	737	<2.2U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/15/2012-11/16/2012**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-005R	MW-006	MW-007	MW-008	MW-008D
			Date:	11/15/2012	11/15/2012	11/15/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0	0
Tetrachloroethylene	ug/l	5		<1.8U	0.83J	<17.5U#	<3.5U	<0.35U
Toluene	ug/l	1000		**26200**	6.9	**3190**	20.5	0.87J
trans-1,2-Di-chloroethylene	ug/l	100		<1.3U	<0.26U	<13U	<2.6U	<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<1.5U#	<0.29U	<14.5U#	<2.9U#	<0.29U
Trichloroethylene	ug/l	5		<1.7U	<0.33U	<16.5U#	<3.3U	<0.33U
Vinyl chloride	ug/l	2		<1.5U	<0.3U	<15U#	<3U#	<0.3U
Xylene (total)	ug/l	10000		**15000**	76.4	1730	41.1	<0.66U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	03/08/2013	03/08/2013	03/07/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<15U#	<1.5U#	<7.5U#	<7.5U#	<1.5U#	<7.5U#
Dichlorofluoromethane	ug/l	**		<3.7U	<0.37U	<1.9U	<1.9U	<0.37U	<1.9U
Tert-Amyl Methyl Ether	ug/l	**		<2U	<0.2U	<1U	<1U	<0.2U	<1U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<2.2U	<0.22U	<1.1U	<1.1U	<0.22U	<1.1U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<3.4U#	<0.34U#	<1.7U#	<1.7U#	<0.34U#	<1.7U#
1,1,2-Trichloroethane	ug/l	5		<3.3U	<0.33U	<1.7U	<1.7U	<0.33U	<1.7U
1,1-Dichloroethane	ug/l	90		<2.8U	<0.28U	<1.4U	<1.4U	<0.28U	<1.4U
1,1-Dichloroethylene	ug/l	7		<2.9U	<0.29U	<1.5U	<1.5U	<0.29U	<1.5U
1,2-Dibromoethane	ug/l	0.05		<2.8U#	<0.28U#	<1.4U#	<1.4U#	<0.28U#	<1.4U#
1,2-Dichloroethane	ug/l	5		<3.2U	<0.32U	3.9J	**141**	<0.32U	<1.6U
1,2-Dichloropropane	ug/l	5		<2.4U	<0.24U	<1.2U	<1.2U	<0.24U	<1.2U
2-Hexanone	ug/l	**		<13U	<1.3U	<6.5U	<6.5U	<1.3U	<6.5U
Acetone	ug/l	550		<31U	<3.1U	<15.5U	<15.5U	<3.1U	126
Benzene	ug/l	5		**1230**	**357**	**9640**	**89.3**	**42.4**	**12.1**
Bromodichloromethane	ug/l	80		<2.7U	<0.27U	<1.4U	<1.4U	<0.27U	<1.4U
Bromoform	ug/l	80		<4U	<0.4U	<2U	<2U	<0.4U	<2U
Carbon disulfide	ug/l	100		<2.3U	<0.23U	<1.2U	<1.2U	<0.23U	<1.2U
Carbon tetrachloride	ug/l	5		<3.1U	<0.31U	<1.6U	<1.6U	<0.31U	<1.6U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	03/08/2013	03/08/2013	03/07/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
Chlorobenzene	ug/l	100		<1.9U	<0.19U	<0.95U	<0.95U	<0.19U	<0.95U
Chlorobromomethane	ug/l	**		<3.2U	<0.32U	<1.6U	<1.6U	<0.32U	<1.6U
Chloroethane	ug/l	3.6		<3.3U	<0.33U	<1.7U	<1.7U	<0.33U	<1.7U
Chloroform	ug/l	80		<2.1U	<0.21U	<1.1U	<1.1U	<0.21U	<1.1U
cis-1,2-Dichloroethylene	ug/l	70		<3.2U	<0.32U	<1.6U	<1.6U	<0.32U	<1.6U
cis-1,3-Dichloropropene	ug/l	0.44		<3.1U#	<0.31U	<1.6U#	<1.6U#	<0.31U	<1.6U#
Dibromochloromethane	ug/l	80		<4.5U	<0.45U	<2.3U	<2.3U	<0.45U	<2.3U
Dichlorodifluoromethane	ug/l	**		<3.3U	<0.33U	<1.7U	<1.7U	<0.33U	<1.7U
Ethyl tert-butyl ether	ug/l	**		<1.9U	<0.19U	<0.95U	<0.95U	<0.19U	1.3J
Ethylbenzene	ug/l	700		57.2	<0.34U	**872**	<1.7U	0.47J	322
Isopropyl Ether	ug/l	**		88.3	14.2	19.2	31.9	<0.25U	<1.3U
m/p-xylene	ug/l	**		628	118	1480	<2.6U	1.1J	1220
Methyl bromide	ug/l	0.85		<3.9U#	<0.39U	<2U#	<2U#	<0.39U	<2U#
Methyl chloride	ug/l	19		**438**	**190**	<1.6U	<1.6U	<0.31U	2.7J
Methyl ethyl ketone	ug/l	700		<18U	6J	18.9J	<9U	<1.8U	<9U
Methyl isobutylketone (MIBK)	ug/l	630		<15U	<1.5U	<7.5U	<7.5U	<1.5U	<7.5U
Methyl tert-butyl ether	ug/l	20		**39.9**	5.1	**23.7**	**156**	18.8	2J
Methylene chloride	ug/l	5		<4.5U	<0.45U	4.5J	4.3J	<0.45U	<2.3U
o-Xylene	ug/l	**		320	67.9	45.1	2.2J	1.2	485
Styrene	ug/l	100		<2.4U	0.34J	<1.2U	<1.2U	<0.24U	<1.2U
Tert-Amyl alcohol	ug/l	**		3080	<165U	<33U	223	<6.6U	73.5

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	03/08/2013	03/08/2013	03/07/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
Tert-Amyl Ethyl Ether	ug/l	**		<2.9U	<0.29U	<1.5U	<1.5U	<0.29U	<1.5U
tert-Butylalcohol	ug/l	**		1210	534	611	1640	24.6	117
Tetrachloroethylene	ug/l	5		<3.5U	<0.35U	<1.8U	<1.8U	<0.35U	<1.8U
Toluene	ug/l	1000		**3180**	**2180**	385	<1.2U	<0.23U	237
trans-1,2-Di-chloroethylene	ug/l	100		<2.6U	<0.26U	<1.3U	<1.3U	<0.26U	<1.3U
trans-1,3-Dichloropropene	ug/l	0.44		<2.9U#	<0.29U	<1.5U#	<1.5U#	<0.29U	<1.5U#
Trichloroethylene	ug/l	5		<3.3U	<0.33U	<1.7U	<1.7U	1.3	<1.7U
Vinyl chloride	ug/l	2		<3U#	<0.3U	<1.5U	<1.5U	<0.3U	<1.5U
Xylene (total)	ug/l	10000		948	186	1530	<3.3U	2.3J	1710

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	03/08/2013	03/07/2013	03/08/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<1.5U#	<7.5U#	<7.5U#	<1.5U#	<7.5U#	<7.5U#
Dichlorofluoromethane	ug/l	**		<0.37U	<1.9U	<1.9U	<0.37U	<1.9U	<1.9U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U	<1U	<1U	<0.2U	<1U	<1U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<0.22U	<1.1U	<1.1U	<0.22U	<1.1U	<1.1U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#	<1.7U#	<1.7U#	<0.34U#	<1.7U#	<1.7U#

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Analytical Chemistry Report **Matrix: Water**

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Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	03/08/2013	03/07/2013	03/08/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
1,1,2-Trichloroethane	ug/l	5		<0.33U	<1.7U	<1.7U	<0.33U	<1.7U	<1.7U
1,1-Dichloroethane	ug/l	90		<0.28U	<1.4U	<1.4U	<0.28U	<1.4U	<1.4U
1,1-Dichloroethylene	ug/l	7		<0.29U	<1.5U	<1.5U	<0.29U	<1.5U	<1.5U
1,2-Dibromoethane	ug/l	0.05		<0.28U#	<1.4U#	<1.4U#	<0.28U#	<1.4U#	<1.4U#
1,2-Dichloroethane	ug/l	5		<0.32U	<1.6U	<1.6U	<0.32U	<1.6U	**6.5**
1,2-Dichloropropane	ug/l	5		<0.24U	<1.2U	<1.2U	<0.24U	<1.2U	<1.2U
2-Hexanone	ug/l	**		<1.3U	<6.5U	<6.5U	<1.3U	<6.5U	<6.5U
Acetone	ug/l	550		<3.1U	<15.5U	<15.5U	<3.1U	<15.5U	<15.5U
Benzene	ug/l	5		**70.8**	**271**	**6000**	**23.9**	**64.9**	**418**
Bromodichloromethane	ug/l	80		<0.27U	<1.4U	<1.4U	<0.27U	<1.4U	<1.4U
Bromoform	ug/l	80		<0.4U	<2U	<2U	<0.4U	<2U	<2U
Carbon disulfide	ug/l	100		<0.23U	<1.2U	<1.2U	0.6J	<1.2U	<1.2U
Carbon tetrachloride	ug/l	5		<0.31U	<1.6U	<1.6U	<0.31U	<1.6U	<1.6U
Chlorobenzene	ug/l	100		<0.19U	<0.95U	<0.95U	6.4	<0.95U	<0.95U
Chlorobromomethane	ug/l	**		<0.32U	<1.6U	<1.6U	<0.32U	<1.6U	<1.6U
Chloroethane	ug/l	3.6		<0.33U	<1.7U	<1.7U	<0.33U	<1.7U	<1.7U
Chloroform	ug/l	80		<0.21U	<1.1U	<1.1U	<0.21U	<1.1U	<1.1U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U	<1.6U	<1.6U	<0.32U	<1.6U	<1.6U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U	<1.6U#	<1.6U#	<0.31U	<1.6U#	<1.6U#
Dibromochloromethane	ug/l	80		<0.45U	<2.3U	<2.3U	<0.45U	<2.3U	<2.3U
Dichlorodifluoromethane	ug/l	**		<0.33U	<1.7U	<1.7U	<0.33U	<1.7U	<1.7U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	03/08/2013	03/07/2013	03/08/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.95U	1.4J	<0.19U	<0.95U	<0.95U
Ethylbenzene	ug/l	700		10	**2490**	**2150**	6.6	211	139
Isopropyl Ether	ug/l	**		3.4	2.6J	4.1J	<0.25U	<1.3U	<1.3U
m/p-xylene	ug/l	**		56.7	9030	8930	14.9	536	25.6
Methyl bromide	ug/l	0.85		<0.39U	<2U#	<2U#	<0.39U	<2U#	<2U#
Methyl chloride	ug/l	19		7	**122**	**39.3**	<0.31U	<1.6U	<1.6U
Methyl ethyl ketone	ug/l	700		11.9	36.4J	144	<1.8U	<9U	<9U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U	<7.5U	<7.5U	<1.5U	<7.5U	<7.5U
Methyl tert-butyl ether	ug/l	20		17.7	15.8	13.4	1.5	<1.7U	**550**
Methylene chloride	ug/l	5		<0.45U	<2.3U	<2.3U	<0.45U	3.8J	4.3J
o-Xylene	ug/l	**		15.2	3650	4050	1	545	5.4
Styrene	ug/l	100		<0.24U	<1.2U	20.4	<0.24U	1.7J	<1.2U
Tert-Amyl alcohol	ug/l	**		291	1960	1680	<6.6U	<33U	<33U
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U	<1.5U	<1.5U	<0.29U	<1.5U	<1.5U
tert-Butylalcohol	ug/l	**		542	373	375	14	<11U	347
Tetrachloroethylene	ug/l	5		<0.35U	<1.8U	<1.8U	0.56J	<1.8U	<1.8U
Toluene	ug/l	1000		9	**25400**	**28500**	3	423	11.9
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U	<1.3U	<1.3U	<0.26U	<1.3U	<1.3U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U	<1.5U#	<1.5U#	<0.29U	<1.5U#	<1.5U#
Trichloroethylene	ug/l	5		<0.33U	<1.7U	<1.7U	<0.33U	<1.7U	<1.7U
Vinyl chloride	ug/l	2		<0.3U	<1.5U	<1.5U	<0.3U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	03/08/2013	03/07/2013	03/08/2013	03/07/2013	03/07/2013	03/08/2013
			Depth (ft):	0	0	0	0	0	0
Xylene (total)	ug/l	10000		71.8	**12700**	**13000**	16	1080	30.9

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	03/07/2013
			Depth (ft):	0
Not Otherwise Specified				
DBCP	ug/l	0.2		<1.5U#
Dichlorofluoromethane	ug/l	**		<0.37U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U
Volatile Organic Compounds (VOCs)				
1,1,1-trichloroethane	ug/l	200		<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#
1,1,2-Trichloroethane	ug/l	5		<0.33U
1,1-Dichloroethane	ug/l	90		0.29J
1,1-Dichloroethylene	ug/l	7		<0.29U
1,2-Dibromoethane	ug/l	0.05		<0.28U#
1,2-Dichloroethane	ug/l	5		<0.32U
1,2-Dichloropropane	ug/l	5		<0.24U
2-Hexanone	ug/l	**		<1.3U
Acetone	ug/l	550		<3.1U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	03/07/2013
			Depth (ft):	0
Benzene	ug/l	5		<0.23U
Bromodichloromethane	ug/l	80		<0.27U
Bromoform	ug/l	80		<0.4U
Carbon disulfide	ug/l	100		<0.23U
Carbon tetrachloride	ug/l	5		<0.31U
Chlorobenzene	ug/l	100		<0.19U
Chlorobromomethane	ug/l	**		<0.32U
Chloroethane	ug/l	3.6		<0.33U
Chloroform	ug/l	80		<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U
Dibromochloromethane	ug/l	80		<0.45U
Dichlorodifluoromethane	ug/l	**		<0.33U
Ethyl tert-butyl ether	ug/l	**		<0.19U
Ethylbenzene	ug/l	700		<0.34U
Isopropyl Ether	ug/l	**		<0.25U
m/p-xylene	ug/l	**		<0.52U
Methyl bromide	ug/l	0.85		<0.39U
Methyl chloride	ug/l	19		<0.31U
Methyl ethyl ketone	ug/l	700		<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U

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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 03/07/2013-03/08/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	03/07/2013
			Depth (ft):	0
Methyl tert-butyl ether	ug/l	20		0.55J
Methylene chloride	ug/l	5		<0.45U
o-Xylene	ug/l	**		<0.33U
Styrene	ug/l	100		<0.24U
Tert-Amyl alcohol	ug/l	**		<6.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U
tert-Butylalcohol	ug/l	**		<2.2U
Tetrachloroethylene	ug/l	5		<0.35U
Toluene	ug/l	1000		0.38J
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U
Trichloroethylene	ug/l	5		<0.33U
Vinyl chloride	ug/l	2		<0.3U
Xylene (total)	ug/l	10000		<0.66U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/13/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-005R
			Date:	03/13/2013
			Depth (ft):	0
Not Otherwise Specified				
DBCP	ug/l	0.2		<5.4#
Tert-Amyl Methyl Ether	ug/l	**		<2.7
Volatile Organic Compounds (VOCs)				
1,1,1,2-Tetrachloroethane	ug/l	**		<2.4
1,1,1-trichloroethane	ug/l	200		<2.4
1,1,2,2-Tetrachloroethane	ug/l	0.053		<2.1#
1,1,2-Trichloroethane	ug/l	5		<2.9
1,1-Dichloroethane	ug/l	90		<1.1
1,1-Dichloroethylene	ug/l	7		<1.9
1,1-Dichloropropene	ug/l	**		<3
1,2,3-Trichlorobenzene	ug/l	**		<2.8
1,2,3-Trichloropropane	ug/l	**		<5.3
1,2-Dibromoethane	ug/l	0.05		**4.8J**
1,2-Dichloroethane	ug/l	5		<2.6
1,2-Dichloropropane	ug/l	5		<4.8
1,3-Dichloropropane	ug/l	**		<2.3
Acetone	ug/l	550		291
Benzene	ug/l	5		**872**
Benzene, 1,2,4-trimethyl	ug/l	**		184

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Constituent	Unit	*Standard	Location:	MW-005R
			Date:	03/13/2013
			Depth (ft):	0
Benzene, 1,3,5-trimethyl-	ug/l	**		49.1
Bromobenzene	ug/l	**		<1.4
Bromodichloromethane	ug/l	80		<2.1
Bromoform	ug/l	80		<2.1
Carbon tetrachloride	ug/l	5		<2.2
Chlorobenzene	ug/l	100		<2.3
Chlorobromomethane	ug/l	**		<3
Chloroethane	ug/l	3.6		<2.6
Chloroform	ug/l	80		<2
cis-1,2-Dichloroethylene	ug/l	70		<1.9
cis-1,3-Dichloropropene	ug/l	0.44		<2.1#
Cymene	ug/l	**		<2.2
Dibromochloromethane	ug/l	80		<1.4
Dichlorodifluoromethane	ug/l	**		<2.7
Ethyl tert-butyl ether	ug/l	**		<2.7
Ethylbenzene	ug/l	700		224
Isopropyl benzene	ug/l	66		10.2J
Isopropyl Ether	ug/l	**		<1.7
m/p-xylene	ug/l	**		764
Methyl bromide	ug/l	0.85		<2.2#
Methyl chloride	ug/l	19		<2.1

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Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-005R
			Date:	03/13/2013
			Depth (ft):	0
Methyl ethyl ketone	ug/l	700		236
Methyl isobutylketone (MIBK)	ug/l	630		12.1J
Methyl tert-butyl ether	ug/l	20		4.7J
Methylene bromide	ug/l	**		<2.6
Methylene chloride	ug/l	5		<7#
n-Butylbenzene	ug/l	**		<1.7
n-Propylbenzene	ug/l	**		24.6J
o-Chlorotoluene	ug/l	**		<1.5
o-Xylene	ug/l	**		376
p-Chlorotoluene	ug/l	**		<3
sec-Butylbenzene	ug/l	**		<2.1
sec-Dichloropropane	ug/l	**		<1.5
Styrene	ug/l	100		<2.1
tert-Butylalcohol	ug/l	**		249J
tert-Butylbenzene	ug/l	**		<3
Tetrachloroethylene	ug/l	5		<2.8
Toluene	ug/l	1000		**2290**
trans-1,2-Di-chloroethylene	ug/l	100		<2.1
trans-1,3-Dichloropropene	ug/l	0.44		<1.9#
Trichloroethylene	ug/l	5		**393**
Trichlorofluoromethane	ug/l	**		<2.7

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Constituent	Unit	*Standard	Location:	MW-005R
			Date:	03/13/2013
			Depth (ft):	0
Vinyl chloride	ug/l	2		<2.1#
Xylene (total)	ug/l	10000		1140
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)				
1,2,4-Trichlorobenzene	ug/l	70		<2
Hexachlorobutadiene	ug/l	0.86		<2.4#
m-Dichlorobenzene	ug/l	1.8		<2.2#
Naphthalene	ug/l	0.65		**75.1**
o-Dichlorobenzene	ug/l	600		<2.2
p-Dichlorobenzene	ug/l	75		<3

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 04/01/2013-04/02/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	04/02/2013	04/02/2013	04/02/2013	04/02/2013	04/02/2013	04/01/2013
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<7.5U#	<7.5U#	<75U#	<7.5U#	<1.5U#	<7.5U#
Dichlorofluoromethane	ug/l	**		<1.9U	<1.9U	<18.5U	<1.9U	<0.37U	<1.9U
Tert-Amyl Methyl Ether	ug/l	**		<1U	<1U	<10U	<1U	<0.2U	<1U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<1.1U	<1.1U	<11U	<1.1U	<0.22U	<1.1U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<1.7U#	<1.7U#	<17U#	<1.7U#	<0.34U#	<1.7U#
1,1,2-Trichloroethane	ug/l	5		<1.7U	<1.7U	<16.5U#	<1.7U	<0.33U	<1.7U
1,1-Dichloroethane	ug/l	90		<1.4U	<1.4U	<14U	<1.4U	<0.28U	<1.4U
1,1-Dichloroethylene	ug/l	7		<1.5U	<1.5U	<14.5U#	<1.5U	<0.29U	<1.5U
1,2-Dibromoethane	ug/l	0.05		<1.4U#	<1.4U#	<14U#	<1.4U#	<0.28U#	<1.4U#
1,2-Dichloroethane	ug/l	5		<1.6U	<1.6U	<16U#	<1.6U	<0.32U	<1.6U
1,2-Dichloropropane	ug/l	5		<1.2U	<1.2U	<12U#	<1.2U	<0.24U	<1.2U
2-Hexanone	ug/l	**		<6.5U	<6.5U	<65U	<6.5U	<1.3U	<6.5U
Acetone	ug/l	550		366	53.1	<155U	<15.5U	<3.1U	<15.5U
Benzene	ug/l	5		**673**	**400**	**356**	**2890**	**37.2**	**44.2**
Bromodichloromethane	ug/l	80		<1.4U	<1.4U	<13.5U	<1.4U	<0.27U	<1.4U
Bromoform	ug/l	80		<2U	<2U	<20U	<2U	<0.4U	<2U
Carbon disulfide	ug/l	100		<1.2U	<1.2U	<11.5U	<1.2U	<0.23U	<1.2U
Carbon tetrachloride	ug/l	5		<1.6U	<1.6U	<15.5U#	<1.6U	<0.31U	<1.6U

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Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	04/02/2013	04/02/2013	04/02/2013	04/02/2013	04/02/2013	04/01/2013
			Depth (ft):	0	0	0	0	0	0
Chlorobenzene	ug/l	100		<0.95U	<0.95U	<9.5U	<0.95U	<0.19U	<0.95U
Chlorobromomethane	ug/l	**		<1.6U	<1.6U	<16U	<1.6U	<0.32U	<1.6U
Chloroethane	ug/l	3.6		<1.7U	<1.7U	<16.5U#	<1.7U	<0.33U	<1.7U
Chloroform	ug/l	80		<1.1U	<1.1U	<10.5U	10.5	<0.21U	<1.1U
cis-1,2-Dichloroethylene	ug/l	70		<1.6U	<1.6U	<16U	<1.6U	<0.32U	<1.6U
cis-1,3-Dichloropropene	ug/l	0.44		<1.6U#	<1.6U#	<15.5U#	<1.6U#	<0.31U	<1.6U#
Dibromochloromethane	ug/l	80		<2.3U	<2.3U	<22.5U	<2.3U	<0.45U	<2.3U
Dichlorodifluoromethane	ug/l	**		<1.7U	<1.7U	<16.5U	<1.7U	<0.33U	<1.7U
Ethyl tert-butyl ether	ug/l	**		<0.95U	<0.95U	<9.5U	<0.95U	<0.19U	<0.95U
Ethylbenzene	ug/l	700		28.5	9.8	**2580**	**1390**	0.48J	637
Isopropyl Ether	ug/l	**		<1.3U	10.7	<12.5U	<1.3U	<0.25U	<1.3U
m/p-xylene	ug/l	**		588	321	10000	5260	2.1	2000
Methyl bromide	ug/l	0.85		<2U#	<2U#	<19.5U#	<2U#	<0.39U	<2U#
Methyl chloride	ug/l	19		<1.6U	<1.6U	<15.5U	<1.6U	1.6	<1.6U
Methyl ethyl ketone	ug/l	700		9.9J	<9U	<90U	106	<1.8U	<9U
Methyl isobutylketone (MIBK)	ug/l	630		<7.5U	<7.5U	<75U	<7.5U	<1.5U	<7.5U
Methyl tert-butyl ether	ug/l	20		7.3	5.7	<16.5U	15.6	17.9	5.9
Methylene chloride	ug/l	5		<2.3U	<2.3U	<22.5U#	<2.3U	<0.45U	<2.3U
o-Xylene	ug/l	**		285	172	4620	2300	1.7	899
Styrene	ug/l	100		<1.2U	<1.2U	<12U	15.2	<0.24U	<1.2U
Tert-Amyl alcohol	ug/l	**		<33U	951	<330U	<33U	<6.6U	<33U

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Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	04/02/2013	04/02/2013	04/02/2013	04/02/2013	04/02/2013	04/01/2013
			Depth (ft):	0	0	0	0	0	0
Tert-Amyl Ethyl Ether	ug/l	**		<1.5U	<1.5U	<14.5U	<1.5U	<0.29U	<1.5U
tert-Butylalcohol	ug/l	**		658	597	313J	230	19	381
Tetrachloroethylene	ug/l	5		<1.8U	<1.8U	<17.5U#	<1.8U	<0.35U	<1.8U
Toluene	ug/l	1000		**2830**	**2670**	**20600**	**14800**	3.3	790
trans-1,2-Di-chloroethylene	ug/l	100		<1.3U	<1.3U	<13U	<1.3U	<0.26U	<1.3U
trans-1,3-Dichloropropene	ug/l	0.44		<1.5U#	<1.5U#	<14.5U#	<1.5U#	<0.29U	<1.5U#
Trichloroethylene	ug/l	5		<1.7U	<1.7U	<16.5U#	<1.7U	1.2	<1.7U
Vinyl chloride	ug/l	2		<1.5U	<1.5U	<15U#	<1.5U	<0.3U	<1.5U
Xylene (total)	ug/l	10000		873	492	**14600**	7570	3.8	2900

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	04/01/2013	04/02/2013	04/02/2013	04/01/2013	04/02/2013	04/02/2013
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<1.5U#	<75U#	<7.5U#	<1.5U#	<1.5U#	<1.5U#
Dichlorofluoromethane	ug/l	**		<0.37U	<18.5U	<1.9U	<0.37U	<0.37U	<0.37U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U	<10U	<1U	<0.2U	<0.2U	<0.2U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<0.22U	<11U	<1.1U	<0.22U	<0.22U	<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#	<17U#	<1.7U#	<0.34U#	<0.34U#	<0.34U#

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Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	04/01/2013	04/02/2013	04/02/2013	04/01/2013	04/02/2013	04/02/2013
			Depth (ft):	0	0	0	0	0	0
1,1,2-Trichloroethane	ug/l	5		<0.33U	<16.5U#	<1.7U	<0.33U	<0.33U	<0.33U
1,1-Dichloroethane	ug/l	90		<0.28U	<14U	<1.4U	<0.28U	<0.28U	<0.28U
1,1-Dichloroethylene	ug/l	7		<0.29U	<14.5U#	<1.5U	<0.29U	<0.29U	<0.29U
1,2-Dibromoethane	ug/l	0.05		<0.28U#	<14U#	<1.4U#	<0.28U#	<0.28U#	<0.28U#
1,2-Dichloroethane	ug/l	5		<0.32U	<16U#	<1.6U	<0.32U	<0.32U	<0.32U
1,2-Dichloropropane	ug/l	5		<0.24U	<12U#	<1.2U	<0.24U	<0.24U	<0.24U
2-Hexanone	ug/l	**		<1.3U	<65U	<6.5U	<1.3U	<1.3U	<1.3U
Acetone	ug/l	550		<3.1U	<155U	<15.5U	<3.1U	<3.1U	<3.1U
Benzene	ug/l	5		**85.5**	**4620**	**178**	3.8	3.2	**51**
Bromodichloromethane	ug/l	80		<0.27U	<13.5U	<1.4U	<0.27U	<0.27U	<0.27U
Bromoform	ug/l	80		<0.4U	<20U	<2U	<0.4U	<0.4U	<0.4U
Carbon disulfide	ug/l	100		<0.23U	<11.5U	<1.2U	0.23J	<0.23U	<0.23U
Carbon tetrachloride	ug/l	5		<0.31U	<15.5U#	<1.6U	<0.31U	<0.31U	<0.31U
Chlorobenzene	ug/l	100		<0.19U	<9.5U	<0.95U	<0.19U	<0.19U	<0.19U
Chlorobromomethane	ug/l	**		<0.32U	<16U	<1.6U	<0.32U	<0.32U	<0.32U
Chloroethane	ug/l	3.6		<0.33U	<16.5U#	<1.7U	<0.33U	<0.33U	<0.33U
Chloroform	ug/l	80		<0.21U	<10.5U	<1.1U	<0.21U	<0.21U	<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U	<16U	<1.6U	<0.32U	<0.32U	<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U	<15.5U#	<1.6U#	<0.31U	<0.31U	<0.31U
Dibromochloromethane	ug/l	80		<0.45U	<22.5U	<2.3U	<0.45U	<0.45U	<0.45U
Dichlorodifluoromethane	ug/l	**		<0.33U	<16.5U	<1.7U	<0.33U	<0.33U	<0.33U

** No Applicable Regulatory Standard

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React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 04/01/2013-04/02/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	04/01/2013	04/02/2013	04/02/2013	04/01/2013	04/02/2013	04/02/2013
			Depth (ft):	0	0	0	0	0	0
Ethyl tert-butyl ether	ug/l	**		6.1	<9.5U	<0.95U	<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		24	285	<1.7U	21.7	17.7	6.2
Isopropyl Ether	ug/l	**		<0.25U	<12.5U	30.6	<0.25U	<0.25U	4.5
m/p-xylene	ug/l	**		280	731	19.6	120	105	5.8
Methyl bromide	ug/l	0.85		<0.39U	<19.5U#	<2U#	<0.39U	<0.39U	<0.39U
Methyl chloride	ug/l	19		<0.31U	<15.5U	<1.6U	<0.31U	<0.31U	<0.31U
Methyl ethyl ketone	ug/l	700		43.2	<90U	<9U	<1.8U	<1.8U	<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U	<75U	<7.5U	<1.5U	<1.5U	<1.5U
Methyl tert-butyl ether	ug/l	20		13	<16.5U	**146**	1.1	<0.33U	**485**
Methylene chloride	ug/l	5		<0.45U	<22.5U#	<2.3U	<0.45U	<0.45U	<0.45U
o-Xylene	ug/l	**		145	<16.5U	13.5	56.1	107	3.3
Styrene	ug/l	100		<0.24U	<12U	<1.2U	<0.24U	3.2	<0.24U
Tert-Amyl alcohol	ug/l	**		142	<330U	<33U	<6.6U	<6.6U	225
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U	<14.5U	<1.5U	<0.29U	<0.29U	<0.29U
tert-Butylalcohol	ug/l	**		402	991	1930	<2.2U	<2.2U	<2.2U
Tetrachloroethylene	ug/l	5		<0.35U	<17.5U#	<1.8U	0.48J	<0.35U	1.7
Toluene	ug/l	1000		198	55.5	10.8	143	97.3	5.1
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U	<13U	<1.3U	<0.26U	<0.26U	<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U	<14.5U#	<1.5U#	<0.29U	<0.29U	<0.29U
Trichloroethylene	ug/l	5		<0.33U	<16.5U#	<1.7U	<0.33U	<0.33U	<0.33U
Vinyl chloride	ug/l	2		<0.3U	<15U#	<1.5U	<0.3U	<0.3U	<0.3U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 04/01/2013-04/02/2013**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	04/01/2013	04/02/2013	04/02/2013	04/01/2013	04/02/2013	04/02/2013
			Depth (ft):	0	0	0	0	0	0
Xylene (total)	ug/l	10000		425	731	33	176	212	9.1

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	04/01/2013
			Depth (ft):	0
Not Otherwise Specified				
DBCP	ug/l	0.2		<1.5U#
Dichlorofluoromethane	ug/l	**		<0.37U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U
Volatile Organic Compounds (VOCs)				
1,1,1-trichloroethane	ug/l	200		<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#
1,1,2-Trichloroethane	ug/l	5		<0.33U
1,1-Dichloroethane	ug/l	90		<0.28U
1,1-Dichloroethylene	ug/l	7		<0.29U
1,2-Dibromoethane	ug/l	0.05		<0.28U#
1,2-Dichloroethane	ug/l	5		<0.32U
1,2-Dichloropropane	ug/l	5		<0.24U
2-Hexanone	ug/l	**		<1.3U
Acetone	ug/l	550		4.3J

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 04/01/2013-04/02/2013**

Regulatory Standard*:

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Constituent	Unit	*Standard	Location:	MW-008D
			Date:	04/01/2013
			Depth (ft):	0
Benzene	ug/l	5		0.37J
Bromodichloromethane	ug/l	80		<0.27U
Bromoform	ug/l	80		<0.4U
Carbon disulfide	ug/l	100		<0.23U
Carbon tetrachloride	ug/l	5		<0.31U
Chlorobenzene	ug/l	100		<0.19U
Chlorobromomethane	ug/l	**		<0.32U
Chloroethane	ug/l	3.6		<0.33U
Chloroform	ug/l	80		<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U
Dibromochloromethane	ug/l	80		<0.45U
Dichlorodifluoromethane	ug/l	**		<0.33U
Ethyl tert-butyl ether	ug/l	**		<0.19U
Ethylbenzene	ug/l	700		<0.34U
Isopropyl Ether	ug/l	**		<0.25U
m/p-xylene	ug/l	**		<0.52U
Methyl bromide	ug/l	0.85		<0.39U
Methyl chloride	ug/l	19		<0.31U
Methyl ethyl ketone	ug/l	700		<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U

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Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	04/01/2013
			Depth (ft):	0
Methyl tert-butyl ether	ug/l	20		0.49J
Methylene chloride	ug/l	5		<0.45U
o-Xylene	ug/l	**		<0.33U
Styrene	ug/l	100		<0.24U
Tert-Amyl alcohol	ug/l	**		<6.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U
tert-Butylalcohol	ug/l	**		2.3J
Tetrachloroethylene	ug/l	5		<0.35U
Toluene	ug/l	1000		0.8J
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U
Trichloroethylene	ug/l	5		<0.33U
Vinyl chloride	ug/l	2		<0.3U
Xylene (total)	ug/l	10000		<0.66U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0
Not Otherwise Specified						
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		0.32J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Semi-Volatile Organic Compounds (SVOCs)					
Hexachloroethane	ug/l	**	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)					
1,1,1,2-Tetrachloroethane	ug/l	**	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5	3.4	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**	<2.2U	<2.2U	<2.2U
Benzene	ug/l	5	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		2.2	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		2.9	2.9	2.3J
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**29.5**	7.6	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		2.8J	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U
tert-Butylalcohol	ug/l	**		13.7J	7.8	4.8J
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)						
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0
Not Otherwise Specified						
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Semi-Volatile Organic Compounds (SVOCs)					
Hexachloroethane	ug/l	**	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)					
1,1,1,2-Tetrachloroethane	ug/l	**	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5	2	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**	2.4J	3.2J	4J
Benzene	ug/l	5	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		1.5	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		8.4	8.4	9
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		15.2	6.5	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U
tert-Butylalcohol	ug/l	**		9	8.7	7.3
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)						
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2794 Northeast Rd North East, Maryland Project No.: 005977

Sample Date: 08/14/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

** No Applicable Regulatory Standard

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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Date: 08/14/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**7.5**	1.3	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2794 Northeast Rd North East, Maryland Project No.: 005977

Sample Date: 08/14/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	7	<2.2U	7.9
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

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			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	5.9	3	26.6
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**330**	**85.3**	0.2J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		115	72.2	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		3550	2340	723	3.7J
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		22.2	<0.81U	<0.81U	14.4
Toluene	ug/l	1000		<0.12U	0.17J	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

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Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		26J	26J	15J	30J
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2.6	0.31J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**8.7**	1.1	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		7.7	13.3	5.6	10.7
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.32J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		5	0.9	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.13J
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	<1.3U	4.6
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**478**	**106**	0.16J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		0.37J	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		119	34	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		4110	1110	434	<1.4U
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		3.6	<0.81U	4.6	69.3
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		0.24J	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		0.13J	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.33J	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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REPSG
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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	0.42J	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2	0.51	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**7.5**	1.3	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.24J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		4.6	0.72	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		3	3.3	2.7	2.6
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**345**	**98.8**	0.34J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		109	62.2	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		3610	2430	196	78.7
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		1.4J	<0.81U	4.3	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		0.18J	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.15J	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report

Calvert Citgo 2794 Northeast Rd North East, Maryland Project No.: 005977

Matrix: Water

Sample Date: 11/16/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	11/16/2012	11/16/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Date: 11/16/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	11/16/2012	11/16/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs)							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**14.8**	1.6	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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REPSG
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Professional Services Group, Inc.

Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Date: 11/16/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	11/16/2012	11/16/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Matrix: Water

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Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	11/16/2012	11/16/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	<1.3U	<1.3U
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**339**	**67.5**	0.31J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Date: 11/16/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	11/16/2012	11/16/2012	11/16/2012	11/16/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		3650	1580	145	299
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		4.1	<0.81U	5.7	1.3J
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	0.33J	0.36J	0.4J
n-Hexane	ug/l	**		<0.22U	<0.22U	0.33J	0.54
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2.5	0.48J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**9.4**	2	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

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Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	4.6J	<2.2U	<2.2U
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.25J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

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Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		4.4	0.77	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		7.3	9	9.7	8.7
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**476**	**124**	3.6	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		0.75	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		132	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		4830	2190	95.6	405
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		2.2J	<0.81U	5	10.6
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		0.14J	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.15J	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2.9	0.45J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs)							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**8.6**	1.5	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	4.2J	<2.2U	2.7J
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.23J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	1.1	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		8.3	7.4	8.6	8.8
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**350**	**82.3**	4	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		0.42J	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

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REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		3830	1380	102	179
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		2.2J	<0.81U	3.9	2.4J
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		0.12J	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.12J	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

** No Applicable Regulatory Standard

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REPSG
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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2.4	0.49J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**9.8**	1.8	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794Northeast Rd North East, Maryland Project No.: 005977 **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		5.6	8.5	9.1	8.5
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		5.8	1.2	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		8.4	10	12.9	12.3
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**421**	**96.5**	9	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		5790	2430	32.9	152
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	4.4	6.3
Toluene	ug/l	1000		0.15J	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<11U	<11U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<4U	<4U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<4.4U	<4.4U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.85U	<0.85U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<4.4U	<4.4U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<1.4U	<1.4U	<0.28U	<0.28U
DBCP	ug/l	0.2		<1.2U#	<1.2U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<1.1U	<1.1U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<3.5U	<3.5U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.8U	<0.8U	<0.16U	<0.16U
Isopropanol	ug/l	**		<19.5U	<19.5U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<1.2U	<1.2U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<1.1U	<1.1U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.95U	<0.95U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<1U	<1U	<0.2U	<0.2U
n-Hexane	ug/l	**		<1.1U	<1.1U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<1.2U	<1.2U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2.8	<0.75U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<1.4U	<1.4U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<1.1U	<1.1U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<1.6U	<1.6U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<9U	<9U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<1.1U	<1.1U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.75U	<0.75U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.65U	<0.65U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<1U	<1U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.55U	<0.55U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<1.1U	<1.1U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<1.2U	<1.2U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<1.2U	<1.2U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<1.4U	<1.4U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.75U	<0.75U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**10.2**	<0.75U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.95U	<0.95U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.7U	<0.7U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<1.2U	<1.2U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<7.5U	<7.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<4.1U	<4.1U	<0.82U	<0.82U
Acetone	ug/l	**		<11U	<11U	<2.2U	<2.2U
Benzene	ug/l	5		<0.35U	<0.35U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.55U	<0.55U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.55U	<0.55U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.95U	<0.95U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<1.1U	<1.1U	<0.22U	<0.22U
Bromoform	ug/l	**		<1.2U	<1.2U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<1.1U	<1.1U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<1U	<1U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.7U	<0.7U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<1U	<1U	<0.2U	<0.2U
Chloroethane	ug/l	**		<1.2U	<1.2U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.95U	<0.95U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.95U	<0.95U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.75U	<0.75U	<0.15U	<0.15U
Cymene	ug/l	**		<0.55U	<0.55U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.9U	<0.9U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<1.1U	<1.1U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<1.1U	<1.1U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.95U	<0.95U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.9U	<0.9U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.7U	<0.7U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		6.2	1.4J	<0.21U	<0.21U
m/p-xylene	ug/l	**		<1.1U	<1.1U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.65U	<0.65U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<1.1U	<1.1U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<6.5U	<6.5U	8	7
Methyl isobutylketone (MIBK)	ug/l	**		<2.8U	<2.8U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**458**	**106**	5.6	<0.09U
Methylene bromide	ug/l	**		<1.2U	<1.2U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<1.6U	<1.6U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.65U	<0.65U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.5U	<0.5U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<1.2U	<1.2U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.6U	<0.6U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.8U	<0.8U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.5U	<0.5U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.9U	<0.9U	<0.18U	<0.18U
Styrene	ug/l	100		<0.55U	<0.55U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<8U	<8U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.6U	<0.6U	<0.12U	<0.12U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004F	DW-004G	DW-004H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		5100	170	40.7	132
tert-Butylbenzene	ug/l	**		<1.2U	<1.2U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.85U	<0.85U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<4.1U	<4.1U	<0.81U	2.4J
Toluene	ug/l	1000		<0.6U	<0.6U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.95U	<0.95U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.5U	<0.5U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<1.1U	<1.1U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.9U	<0.9U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<1.2U	<1.2U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<1.4U	<1.4U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.7U	<0.7U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<1.2U	<1.2U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.55U	<0.55U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.75U	<0.75U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.65U	<0.65U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.55U	<0.55U	<0.11U	<0.11U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 08/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	160	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	50.4	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 08/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	0.49J
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**7.8**	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 08/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	91.9	4.5J	17.6
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	0.37J	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	0.59	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		0.82	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 08/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	0.62	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		0.49J	1.9	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	45.9	<1.3U	45.1
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**455**	3.8	<0.09U	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	0.58	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	71.1	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

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REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 08/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	08/14/2012	08/14/2012	08/14/2012	08/14/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		2650	2160	2190	<1.4U
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	22	<0.81U	40.2
Toluene	ug/l	1000		<0.12U	0.14J	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		0.49J	2.5	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	0.26J
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 09/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		34J	30J	30J	26J
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 09/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**8.8**	1.9	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	5.2	<1.5U	<1.5U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 09/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		20.1	90.6	8.7	10.7
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.53	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 09/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	7.6	<1.3U	14.3
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**538**	**118**	0.24J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		111	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 09/14/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	09/14/2012	09/14/2012	09/14/2012	09/14/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		3030	1750	1880	424
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		6.6	4	<0.81U	153
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	36J	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	6.9J	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		4.1	0.33J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		**5.6**	0.32J	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	30.5	<2.2U	<2.2U
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.4J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		3.5	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		2.3J	5.5	3.1	2.7
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**401**	**36.2**	0.22J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		79.2	65.4	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

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REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 10/19/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	10/19/2012	10/19/2012	10/19/2012	10/19/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		1890	1510	1060	1770
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	1.2J	2.9	2.5
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.14J	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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Analytical Chemistry Report

Calvert Citgo 2802 Northeast Rd North East, Maryland Project No.: 005977

Matrix: Water

Sample Date: 11/20/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	11/20/2012	11/20/2012	11/20/2012	11/20/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		32J	18J	32J	18J
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	1.1
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		3.2	3.6	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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REPSG
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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Date: 11/20/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	11/20/2012	11/20/2012	11/20/2012	11/20/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs)							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		0.24J	0.26J	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		4	4.6	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2802 Northeast Rd North East, Maryland Project No.: 005977

Sample Date: 11/20/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	11/20/2012	11/20/2012	11/20/2012	11/20/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	<2.2U	23.9	10.7
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.49J	0.66	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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REPSG
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Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Date: 11/20/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	11/20/2012	11/20/2012	11/20/2012	11/20/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		3	3.1	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		3.1	3.7	3.1	3.9
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**281**	**270**	0.21J	0.2J
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	0.11J	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		49.3	54.6	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

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REPSG
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Professional Services Group, Inc.

Analytical Chemistry Report

Matrix: Water

Calvert Citgo 2802 Northeast Rd North East, Maryland Project No.: 005977

Sample Date: 11/20/2012

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	11/20/2012	11/20/2012	11/20/2012	11/20/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		802	689	754	1130
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	1.2J	6.9	9.1
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.22J	0.23J	<0.11U	<0.11U

** No Applicable Regulatory Standard

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REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	120	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	10.5J	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	0.31J	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	0.31J	0.35J
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		3.4	0.38J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		3.4	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	17.9	2.2J	3J
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	0.31J	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	0.2J	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.42J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		2.5	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		8.9	12.5	8.5	11.1
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**351**	**52.8**	0.43J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		56.9	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 12/11/2012**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	12/11/2012	12/11/2012	12/11/2012	12/11/2012
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		878	853	826	1170
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		2.6	<0.81U	8.9	30.4
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.18J	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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Analytical Chemistry Report

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Water

Sample Date: 01/30/2013

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	12.1J	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		2.1	0.45J	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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REPSG
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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs)							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		2.1	0.36J	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		5.5	22.2	3.5J	4.1J
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.38J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

** No Applicable Regulatory Standard

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REPSG
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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		2	0.33J	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		9.5	10.5	9	9.1
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**174**	**43.6**	2.3	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	01/30/2013	01/30/2013	01/30/2013	01/30/2013
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		327	287	9.2	414
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	5.1	3.6
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.14J	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/30/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		19J	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		1.5	0.64	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/21/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		1.7	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Regulatory Standard*:

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Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		7.9	9.9	6.3	6.3
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

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Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		1.6	0.51	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		15.3	11.1	6.8	12.8
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**169**	**75.1**	2.1	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

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Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	02/21/2013	02/21/2013	02/21/2013	02/21/2013
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		290	183	6.9	222
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	4.1	<0.81U
Toluene	ug/l	1000		0.21J	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

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REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified ----------							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	<10U	<10U	<10U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs) ----------							
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs) ----------							
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		0.19J	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		1.5	1.5	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		<2.2U	3.8J	<2.2U	4.8J
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.53	0.28J	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		1.4	1.5	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		1.4J	6.1	7.1	7.4
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**157**	**177**	4.5	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/08/2013**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office OF Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005F	DW-005G	DW-005H
			Date:	03/08/2013	03/08/2013	03/08/2013	03/08/2013
			Depth (ft):	0	0	0	0
tert-Butylalcohol	ug/l	**		205	213	7.3	135
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	3.6	6.2
Toluene	ug/l	1000		0.26J	<0.12U	<0.12U	0.16J
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs) --------							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	0.25J	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Air, Vapor Extraction Well Effluent**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/13/2013**

Regulatory Standard*:

USEPA Region III Risk Based Concentrations

Constituent	Unit	*Standard	Location:	AE-001	AE-002	AE-003	AE-004
			Date:	03/13/2013	03/13/2013	03/13/2013	03/13/2013
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,3-Butadiene	mg/m3	3.5e-005		<0.093#	<0.093#	<0.093#	<0.093#
2,2,4-Trimethylpentane	mg/m3	**		355	282	282	190
Allyl chloride	mg/m3	**		<0.18	<0.18	<0.18	<0.18
Cyclohexane	mg/m3	**		278	236	214	215
Ethanol	mg/m3	**		<0.51	<0.51	<0.51	<0.51
Ethyl acetate	mg/m3	3.3		<0.72	<0.72	<0.72	<0.72
Isopropanol	mg/m3	**		<0.25	<0.25	<0.25	<0.25
Methyl methacrylate	mg/m3	0.73		<0.25	<0.25	<0.25	<0.25
n-Heptane	mg/m3	**		652	549	549	384
n-Hexane	mg/m3	0.21		**3450**	**2720**	**2420**	**2010**
p-Ethyltoluene	mg/m3	**		11.7	24.6	18.8	17.9
Propylene	mg/m3	**		<0.094	<0.094	<0.094	<0.094
Vinyl Acetate	mg/m3	0.21		<0.31#	<0.31#	<0.31#	<0.31#
Vinyl bromide	mg/m3	0.00057		<0.19#	<0.19#	<0.19#	<0.19#
Volatile Organic Compounds (VOCs)							
1,1,1-trichloroethane	mg/m3	2.3		<0.21	<0.21	<0.21	<0.21
1,1,2,2-Tetrachloroethane	mg/m3	0.001		<0.37#	<0.37#	<0.37#	<0.37#
1,1,2-Trichloroethane	mg/m3	0.0011		<0.31#	<0.31#	<0.31#	<0.31#
1,1-Dichloroethane	mg/m3	0.51		<0.13	<0.13	<0.13	<0.13

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Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Air, Vapor Extraction Well Effluent

Sample Date: 03/13/2013

Regulatory Standard*:

USEPA Region III Risk Based Concentrations

Constituent	Unit	*Standard	Location:	AE-001	AE-002	AE-003	AE-004
			Date:	03/13/2013	03/13/2013	03/13/2013	03/13/2013
			Depth (ft):	0	0	0	0
1,1-Dichloroethylene	mg/m3	0.00036		<0.14#	<0.14#	<0.14#	<0.14#
1,2-Dibromoethane	mg/m3	8.2e-005		<0.36#	<0.36#	<0.36#	<0.36#
1,2-Dichloroethane	mg/m3	0.00069		<0.17#	<0.17#	<0.17#	<0.17#
1,2-Dichloropropane	mg/m3	0.00092		<0.25#	<0.25#	<0.25#	<0.25#
1,4-Dioxane	mg/m3	0.0057		<0.68#	<0.68#	<0.68#	<0.68#
2-Hexanone	mg/m3	**		<0.34	<0.34	<0.34	<0.34
Acetone	mg/m3	0.37		<0.26	<0.26	<0.26	<0.26
Benzene	mg/m3	0.0022		**371**	**290**	**317**	**241**
Benzene, 1,2,4-trimethyl	mg/m3	0.0062		**34.5**	**76.7**	**58**	**56**
Benzene, 1,3,5-trimethyl-	mg/m3	0.0062		**13.7**	**29**	**22.8**	**21.5**
Benzyl chloride	mg/m3	0.0017		<0.4#	<0.4#	<0.4#	<0.4#
Bromodichloromethane	mg/m3	0.001		<0.33#	<0.33#	<0.33#	<0.33#
Bromoform	mg/m3	0.016		<0.48#	<0.48#	<0.48#	<0.48#
Carbon disulfide	mg/m3	0.73		<0.12	<0.12	<0.12	<0.12
Carbon tetrachloride	mg/m3	0.0012		<0.2#	<0.2#	<0.2#	<0.2#
Chlorobenzene	mg/m3	0.062		<0.29#	<0.29#	<0.29#	<0.29#
Chloroethane	mg/m3	0.022		<0.15#	<0.15#	<0.15#	<0.15#
Chloroform	mg/m3	0.00031		<0.2#	<0.2#	<0.2#	<0.2#
cis-1,2-Dichloroethylene	mg/m3	0.037		<0.16#	<0.16#	<0.16#	<0.16#
cis-1,3-Dichloropropene	mg/m3	**		<0.24	<0.24	<0.24	<0.24
Cryofluorane	mg/m3	**		<0.26	<0.26	<0.26	<0.26

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Air, Vapor Extraction Well Effluent

Sample Date: 03/13/2013

Regulatory Standard*:

USEPA Region III Risk Based Concentrations

Constituent	Unit	*Standard	Location:	AE-001	AE-002	AE-003	AE-004
			Date:	03/13/2013	03/13/2013	03/13/2013	03/13/2013
			Depth (ft):	0	0	0	0
Dibromochloromethane	mg/m3	0.00075		<0.48#	<0.48#	<0.48#	<0.48#
Dichlorodifluoromethane	mg/m3	0.18		<0.19#	<0.19#	<0.19#	<0.19#
Ethylbenzene	mg/m3	1.1		**93.8**	**132**	**113**	**104**
Freon 113	mg/m3	31		<0.34	<0.34	<0.34	<0.34
m/p-xylene	mg/m3	**		316	364	361	351
Methyl bromide	mg/m3	0.0051		<0.15#	<0.15#	<0.15#	<0.15#
Methyl chloride	mg/m3	0.018		<0.18#	<0.18#	<0.18#	<0.18#
Methyl ethyl ketone	mg/m3	1		<0.2	<0.2	<0.2	<0.2
Methyl isobutylketone (MIBK)	mg/m3	0.073		<0.57#	<0.57#	<0.57#	<0.57#
Methyl tert-butyl ether	mg/m3	3.1		<0.26	<0.26	<0.26	<0.26
Methylene chloride	mg/m3	0.038		<0.31#	<0.31#	<0.31#	<0.31#
o-Chlorotoluene	mg/m3	0.073		<0.26#	<0.26#	<0.26#	<0.26#
o-Xylene	mg/m3	**		83.4	132	110	103
Styrene	mg/m3	1		<0.17	<0.17	<0.17	<0.17
tert-Butylalcohol	mg/m3	**		<0.24	<0.24	<0.24	<0.24
Tetrachloroethylene	mg/m3	0.031		<0.26#	<0.26#	<0.26#	<0.26#
Tetrahydrofuran	mg/m3	**		<0.35	<0.35	<0.35	<0.35
Toluene	mg/m3	0.42		**1040**	**897**	**984**	**626**
trans-1,2-Di-chloroethylene	mg/m3	0.073		<0.17#	<0.17#	<0.17#	<0.17#
trans-1,3-Dichloropropene	mg/m3	**		<0.17	<0.17	<0.17	<0.17
Trichloroethylene	mg/m3	0.01		<0.31#	<0.31#	<0.31#	<0.31#

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Analytical Chemistry Report **Matrix: Air, Vapor Extraction Well Effluent**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 03/13/2013**

Regulatory Standard*:

USEPA Region III Risk Based Concentrations

Constituent	Unit	*Standard	Location:	AE-001	AE-002	AE-003	AE-004
			Date:	03/13/2013	03/13/2013	03/13/2013	03/13/2013
			Depth (ft):	0	0	0	0
Trichlorofluoromethane	mg/m3	0.73		<0.25	<0.25	<0.25	<0.25
Vinyl chloride	mg/m3	0.00072		<0.089#	<0.089#	<0.089#	<0.089#
Xylene (total)	mg/m3	7.3		**400**	**495**	**473**	**452**
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	mg/m3	0.0037		<1.1#	<1.1#	<1.1#	<1.1#
Hexachlorobutadiene	mg/m3	**		<0.52	<0.52	<0.52	<0.52
m-Dichlorobenzene	mg/m3	0.11		<0.27#	<0.27#	<0.27#	<0.27#
o-Dichlorobenzene	mg/m3	0.15		<0.37#	<0.37#	<0.37#	<0.37#
p-Dichlorobenzene	mg/m3	0.0028		<0.57#	<0.57#	<0.57#	<0.57#

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Fluid Levels Summary

Calvert Citgo 2815 Northeast Rd North East, Maryland **REPSG Project No.: 005977** **Sample Dates: 08/13/2012-04/02/2013**

Well	MC*	Unit	Ref. Elev.	Measure	Dry	Water Depth	Water Elev.	Corrected Depth	Corrected Elev.	Depth of Well	LNAPL	Thickness	DNAPL	Thickness	Remark
2012 [Fourth Quarter]															
Sample Date: 11/15/2012															
MW-001	M	ft	416.3	Y	N	20.04	396.3	20.04	396.3	28.34	-	-	-	-	
MW-001R	M	ft	416.5	Y	N	18.81	397.7	18.81	397.7	42.76	-	-	-	-	
MW-003	M	ft	416.2	Y	N	17.15	399.1	17.15	399.1	31.40	-	-	-	-	
MW-003R	M	ft	416.3	Y	N	16.92	399.4	16.92	399.4	25.05	-	-	-	-	
MW-005	M	ft	416.9	Y	N	18.92	398.0	18.92	398.0	29.73	-	-	-	-	
MW-005R	M	ft	416.9	Y	N	19.78	397.1	19.78	397.1	25.03	-	-	-	-	
MW-006	M	ft	416.7	Y	N	19.36	397.3	19.36	397.3	30.40	-	-	-	-	
MW-007	M	ft	417.6	Y	N	18.68	398.9	18.68	398.9	28.66	-	-	-	-	
Sample Date: 11/16/2012															
MW-002	M	ft	415.7	Y	N	18.86	396.8	18.86	396.8	31.55	-	-	-	-	
MW-008	M	ft	416.4	Y	N	19.36	397.0	19.36	397.0	71.45	-	-	-	-	
MW-008D	M	ft	416.5	Y	N	17.25	399.3	17.25	399.3	140.0	-	-	-	-	
2012 [Third Quarter]															
Sample Date: 08/13/2012															
MW-003	M	ft	416.2	Y	N	17.41	398.8	17.41	398.8	31.30	-	-	-	-	
MW-003R	M	ft	416.3	Y	N	17.30	399.0	17.30	399.0	25.10	-	-	-	-	
MW-005	M	ft	416.9	Y	N	18.52	398.4	18.52	398.4	29.80	-	-	-	-	
MW-005R	M	ft	416.9	Y	N	18.30	398.6	18.30	398.6	25.10	-	-	-	-	
MW-007	M	ft	417.6	Y	N	18.88	398.7	18.88	398.7	28.78	-	-	-	-	
MW-008D	M	ft	416.5	Y	N	17.30	399.2	17.30	399.2	140.0	-	-	-	-	
Sample Date: 08/14/2012															
MW-001	M	ft	416.3	Y	N	18.90	397.4	18.90	397.4	28.70	-	-	-	-	
MW-001R	M	ft	416.5	Y	N	18.33	398.2	18.33	398.2	43.00	-	-	-	-	
MW-002	M	ft	415.7	Y	N	18.10	397.6	18.10	397.6	31.55	-	-	-	-	
MW-006	M	ft	416.7	Y	N	18.58	398.1	18.58	398.1	30.65	-	-	-	-	
MW-008	M	ft	416.4	Y	N	18.15	398.3	18.15	398.3	71.45	-	-	-	-	

* Measurement Code: "M" = Measured; “N” = Not Measured; “MP” = Pre-Recovery Measurement; “MR” = Post-Recovery Measurement; “NF” = Not Found; “O” = Obstructed.

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Fluid Levels Summary

Calvert Citgo 2815 Northeast Rd North East, Maryland REPSG Project No.: 005977 Sample Dates: 08/13/2012-04/02/2013

Well	MC*	Unit	Ref. Elev.	Measure	Dry	Water Depth	Water Elev.	Corrected Depth	Corrected Elev.	Depth of Well	LNAPL	Thickness	DNAPL	Thickness	Remark
2013 [First Quarter]															
Sample Date: 03/07/2013															
MW-001	M	ft	416.3	Y	N	19.70	396.6	19.70	396.6	28.65	-	-	-	-	
MW-001R	M	ft	416.5	Y	N	17.25	399.3	17.25	399.3	42.73	-	-	-	-	
MW-002	M	ft	415.7	Y	N	17.20	398.5	17.20	398.5	31.56	-	-	-	-	
MW-005	M	ft	416.9	Y	N	17.45	399.4	17.45	399.4	29.77	-	-	-	-	
MW-006	M	ft	416.7	Y	N	17.88	398.8	17.88	398.8	20.30	-	-	-	-	
MW-007	M	ft	417.6	Y	N	16.88	400.7	16.88	400.7	28.65	-	-	-	-	
Sample Date: 03/08/2013															
MW-003	M	ft	416.2	Y	N	15.72	400.5	15.72	400.5	31.31	-	-	-	-	
MW-003R	M	ft	416.3	Y	N	15.45	400.8	15.45	400.8	25.05	-	-	-	-	
MW-005R	M	ft	416.9	Y	N	18.30	398.6	18.30	398.6	25.02	-	-	-	-	
MW-008	M	ft	416.4	Y	N	18.51	397.9	18.51	397.9	73.00	-	-	-	-	
MW-008D	M	ft	416.5	Y	N	15.55	401.0	15.55	401.0	140.0	-	-	-	-	
2013 [Second Quarter]															
Sample Date: 04/01/2013															
MW-001	M	ft	416.3	Y	N	16.92	399.4	16.92	399.4	29.80	-	-	-	-	
MW-001R	M	ft	416.5	Y	N	16.39	400.1	16.39	400.1	25.03	-	-	-	-	
MW-003	M	ft	416.2	Y	N	14.95	401.3	14.95	401.3	31.30	-	-	-	-	
MW-003R	M	ft	416.3	Y	N	14.70	401.6	14.70	401.6	25.05	-	-	-	-	
MW-006	M	ft	416.7	Y	N	17.20	399.5	17.20	399.5	30.35	-	-	-	-	
MW-008D	M	ft	416.5	Y	N	14.93	401.6	14.93	401.6	140.0	-	-	-	-	
Sample Date: 04/02/2013															
MW-002	M	ft	415.7	Y	N	16.66	399.0	16.66	399.0	31.51	-	-	-	-	
MW-005	M	ft	416.9	Y	N	18.55	398.4	18.55	398.4	28.75	-	-	-	-	
MW-005R	M	ft	416.9	Y	N	16.55	400.4	16.55	400.4	42.80	-	-	-	-	
MW-007	M	ft	417.6	Y	N	16.21	401.4	16.21	401.4	28.75	-	-	-	-	
MW-008	M	ft	416.4	Y	N	16.56	399.9	16.56	399.9	72.05	-	-	-	-	

* Measurement Code: "M" = Measured; “N” = Not Measured; “MP” = Pre-Recovery Measurement; “MR” = Post-Recovery Measurement; “NF” = Not Found; “O” = Obstructed.

Groundwater Field Observations Data Collected during the Pilot Test

Well	Time	Depth to Water (ft)	PID (ppm)	"H2O Vacuum	"H20 Pressure
VMP-001 (Located 6' to the NE of MW-005R)	8:00	17.15	471	-6.2	
	8:15			-4.4	
	8:30	17.32		-12.0	
	8:45			-12.5	
	10:00	18.15	0	-14.2	
	11:00	17.72	0	-15.0	
	12:00	18.63	0	-12.3	
	13:00	18.10	0	-9.0	
	14:00	17.79	0	-14.5	
	15:00	17.61	0	-17.0	
	16:00	17.62	0	-17.5	
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
VMP-002 (Located 7.5' to the SE of MW-005R)	8:00	17.23	394	-8.2	
	8:15			-12.1	
	8:30	17.23		-12.0	
	8:45			-16.5	
	10:00	18.59	0.6	-21.0	
	11:00	18.39	0	-23.0	
	12:00	18.66	0.6	-22.0	
	13:00	18.58	0	-22.0	
	14:00	18.71	0.3	-22.2	
	15:00	18.75	0	-22.2	
	16:00	18.71	0	-23.0	
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
VMP-003 (Located 24' to the NE of MW-005R)	8:00	16.88	517		0.004
	8:15				0.007
	8:30	16.92			0.020
	8:45				0.010
	10:00	17.29	356	-0.011	
	11:00	17.40	273	-0.009	
	12:00	17.45	268	-0.012	
	13:00	17.49	160	-0.012	
	14:00	17.52	427	-0.020	
	15:00	17.53	240	-0.020	
	16:00	17.54	110	-0.022	
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
VMP-004 (Located 21' to the SE of MW-005R)	8:00	17.43	497	-0.045	
	8:15			-0.200	
	8:30	17.43		-0.300	
	8:45			-0.400	
	10:00	17.61	0.5	-0.500	
	11:00	17.59	0.3	-0.700	
	12:00	17.89	6.8	-0.400	
	13:00	17.95	0.7	-0.700	
	14:00	17.99	0.7	-0.400	
	15:00	17.89	0.2	-0.500	

	16:00	17.81	0	-0.700	
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
MP-001 (Located 20' to the NNE of MW-005R)	8:00	5.48	306		
	8:15				
	8:30				
	8:45				
	10:00	5.47	278	-0.002	
	11:00	5.41	375		0.004
	12:00	5.45	414		0.015
	13:00	5.45	501		0.000
	14:00	5.44	537		0.000
	15:00	5.45	525		0.000
	16:00	5.44	387		0.000
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
MP-002 (Located 45' to the NNW of MW-005R)	8:00				
	8:15				
	8:30				
	8:45				
	10:00	5.94	323		0.011
	11:00	5.92	116		0.000
	12:00	5.90	51		0.015
	13:00	5.89	109	-0.015	
	14:00	5.89	42.9		0.000
	15:00	5.89	19.6	-0.020	
	16:00	5.81	24.8		0.010
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
MW-001R (Located 35' to the SE of MW-005R)	8:00	16.85	337	-1.1	
	8:15		150	-1.8	
	8:30	15.90		-3.0	
	8:45			-4.5	
	10:00	17.22	18.7	-5.0	
	11:00	17.28	29.8	-5.4	
	12:00	17.29	14	-4.5	
	13:00	17.27	15.5	-6.0	
	14:00	17.21	12.8	-5.6	
	15:00	17.10	18	-5.0	
	16:00	17.27	1.8	-4.8	
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
MW-003R (Located 52.5' to the NNE of MW-005R)	8:00	15.02	346	-0.045	
	8:15		40		0.078
	8:30	15.04			0.030
	8:45				0.040
	10:00	15.04	239		0.020
	11:00	15.05	108		0.003
	12:00	15.05	184		0.000
	13:00	15.06	132		0.025
	14:00	15.08	170		0.030
	15:00	15.08	155		0.020

	16:00	15.05	49.9	-0.020	
Well	**Time**	**Depth to Water (ft)**	**PID (ppm)**	**"H2O Vacuum**	**"H20 Pressure**
MW-007 (Located 48' to the NW of MW-005R)	8:00				
	8:15				
	8:30				
	8:45				
	10:00	15.78	21.9		
	11:00	16.49	7.6	-0.010	
	12:00	16.45	9.7		0.035
	13:00	16.42	8.1	-0.025	
	14:00	16.40	8.3		0.015
	15:00	16.36	6.4	-0.015	
	16:00	16.35	1.8	-0.030	

Draft Calvert Citgo Remediation System Schedule																
	Week 1	*Week 2*	*Week 3*	*Week 4*	*Week 5*	*Week 6*	*Week 7*	*Week 8*	*Week 9*	*Week 10*	*Week 11*	*Week 12*	*Week 13*	*Week 14*	*Week 15*	*Week 16*
MDE Approval				X												
NPDES Permitting	X					X						X				
Air Permitting	X			X												
Final design		X														
Client Approval				X												
Component Ordering					X		X									
System Fabrication						X					X					
System Test											X					
Well Installation						X										
Piping Installation								X		X						
Electrical installation							X	X								
System Installation												X				
Start up testing													X			
Daily Operations (1st Week)														X		
BiWeekly O & M																X

ATTACHMENT 4: REPSG STANDARD OPERATING PROCEDURES

Standard Operating Procedure for Soil Sampling

A. Decontamination Procedures

Non-aqueous matrix field sampling equipment cleaning and decontamination procedures are as follows:

1) Laboratory grade glassware detergent and tap water scrub to remove visual contamination.
2) Generous tap water rinse.
3) Distilled and DI water rinse.
4) All sampling equipment is decontaminated prior to use, and field decontaminated between each separate sampling event

B. Soil Sampling

1. Bucket Auger (to be used for: BNS, TPH, TOC, Acid Extractables)

a) Remove unnecessary non-soil material from the sampling point.
b) Attach the bucket and handle to an extension rod.
c) Continue boring until the desired depth is attained.
d) Use a second decontaminated auger to collect the sample.
e) Wearing new surgical gloves transfer the sample using a decontaminated hand trowel, into an appropriate, labeled container.
f) When collecting samples at depths greater than 12 inches, it is advisable to discard 1/2 inch of material on the top of the auger due to cave in.

2. Soil Corer (to be used for Volatile Organics)

a) Insert collection tube into the sampler
b) Remove unnecessary non-soil material from the sampling point.
c) Attach the corer and handle to an extension rod.
d) Continue boring until the desired depth is attained.
e) Wearing new surgical gloves remove the collection tube and transfer to a sample container.

3. Hand Trowel

a) Clear surface debris
b) Collect sample from 0-24 inches using a decontaminated hand trowel
c) Wearing new surgical gloves, transfer the sample to the container

4. Backhoe Sampling

a) Begin with a steam cleaned backhoe
b) Operate the backhoe in a deliberate fashion removing <6 inches of soil per scoop
c) Once selected depth is attained, steam clean backhoe bucket

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Philadelphia, PA 19142-0377

215 729.3220
215 729.1557 (Fax)
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d) Excavate sample into bucket
e) Wearing new surgical gloves, remove a sample, using a decontaminated hand trowel. The sample is obtained from the front of the bucket, in an area not in contact with the machinery surface.
f) Place the sample into a decontaminated stainless steel bucket, and mix the sample to homogenize
g) Place the homogenized sample into an appropriate, labeled sampling container.

5. Split Spoon Sampling

a) Begin with decontaminated stainless steel split spoon sampler
b) Advance Split Spoon to desired depth
c) Wearing new surgical gloves, retrieve the sampler
d) Split the sampler and retrieve the soil core
e) Place the undisturbed soil core into an appropriate, labeled sampling container.

6. Manual Geoprobe

a) Insert collection tube into the sampler
b) Attach the corer and handle to an extension rod
c) Insert coring point and primary extension rod
a. Attach extension coupling, reverse- thread stopper, and anvil to the corer
d) Hammer corer to desired depth and release the reverse-thread stopper
e) Continue to hammer corer to collect soil matrix from desired depth
a. Wearing new surgical gloves, remove the collection tube and transfer to a sample container
f) Repeat decontamination procedures prior to re-use

7. EnCore™ Samplers

a) Using T-handle, push sampler into soil until coring body is completely full
b) Remove sampler form soil and wipe excess soil from coring body exterior
c) Cap coring body while it is still on T-handle. Push and twist cap over bottom until grooves on locking arms seat over ridge on coring body. Cap must be seated to seal sampler.
d) Remove the capped sampler from T-handle and lock plunger by rotating plunger rod counter clockwise until wings rest firmly against tab
e) Attach completed label to cap on coring body and return encore to zipper bag
f) Seal bag and put on ice

8. Methanol Samplers (Volatile Organic Analysis)

a. REPSG will prepare a small diameter coring device by cutting off the injection tip of a disposable syringe.
b. REPSG will tare weigh the coring device to be used utilizing an electronic balance with a sensitivity of 0.1 grams.
c. Once the sample interval has been selected, REPSG will trim off the surface soils of the sample utilizing a decontaminated spatula or trowel to expose a fresh surface.
d. REPSG will insert the core sampler into soil to retrieve the sample and, clear off any excess material from the outside of the coring device. React will determine the weight of the sample taken by re-weighing the core sampler with soil in it. Sample weight should be 5 grams. If there is too much sample, React will scoop out some soil using a clean spatula. If there is too little sample, React will re-insert the core sampler into the soil.
e. When the proper weight of material is obtained, REPSG will open the 60 ml pre-weighed sample container containing 25 mLs of Methanol and slowly deposit the soil into the bottle, trying not to splash. Any loss of methanol from 60 ml container will invalidate the test. If this should happen, React will re-sample using extra vials provided.
f. REPSG will remove any excess soil material from around rim of 60 ml vial and seal cap tightly. Once sealed, React will gently swirl the vial to break up soil sample.
g. REPSG will collect a separate duplicate sample without methanol in a 1 oz. teflon seal jar for percent (%) moisture determination and additional non-volatile analysis as required.
h. REPSG will attach labels as provided by the laboratory.

C. Sample Preservation and Transport

a) Samples will be transferred from sampling devices to appropriately preserved and labeled sampling containers.
b) After they are packaged, samples will be placed into a cooler and maintained at 4^0C immediately.
c) Samples will be delivered, within allowable holding times, with an appropriate chain of custody, to a state certified laboratory for analysis.[1]

[1] Sampling Protocol based on ASTM Standard D4700, Description and Sampling of Contaminated Soils: A Field Pocket Guide (EPA/625/12-91/002)

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GROUNDWATER SAMPLING PROTOCOL

The following is the standard sampling procedure used by React Environmental Professional Services Group, Inc. (REACT) for the purpose of monitoring well development and sampling groundwater from monitoring wells.

Scope and Application

The purpose of this standard operating procedure (SOP) is to provide an overview of monitoring well development and sampling techniques. The theory behind well development is to remove as much of the fine grained sediments (fines) from the vicinity of the well screen as possible.

There are two techniques that are used to develop and sample wells. The first is overpumping, which involves purging the well at a rapid rate as to draw the water level as low as possible; and then allowing the well to recharge itself to its original level. The process is repeated until the water is clear and sediment-free.

Bailing consists of placing a manually operated check-valve bailer to remove water from the well. As is the case with the overpumping, the bailing should be continued until the water is sediment-free. Bailing works best for wells that are shallow or recharge slowly.

Method Summary

Before sampling takes place, a general overview of the site should be conducted. The overview should include conditions of the well(s) to ensure that no damage has occurred. Examples of damage may be, but are not limited to, missing well caps or locks, or any damage to the well casing itself. If damage is observed, repairs should be made in a timely manner, but not longer than 14 days after the damage is noticed.

Once the well is installed, development using one of the aforementioned techniques should occur as soon as possible, preferably shortly after installation. The method used for development should not interfere with the setting of the well seal.

There are a number of activities that must take place prior to well development. The well must first be opened and initial measurements should be taken, including water level and depth to bottom. At this time, well volume should be calculated using ***Equation 1*** below and the pertinent information should be documented as well.

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Equation 1:

A. Well Depth (ft) _____

B. Depth to Water (ft) _____

C. Liquid Level (ft) = (A-B) _____

D. Casing Diameter:
   a. 2 inches (D=0.163)
   b. 4 inches (D=0.653)
   c. 6 inches (D=1.469)

E. Well Volume (CxD) _____

F. Total Purge Volume: _____
   [E x total number of well volumes (3)]

Purge Start Time (24 hour) _____

Sample Time (24 hour) _____

Sampling Method (Circle One):

Tap Submersible Pump Bailer

Number of Samples Collected _____

These recordings should be logged on groundwater sampling data sheets. Once this is completed, development of the wells should commence.

Using either the bailer or overpumping method, the wells should be purged until the water is clear and sediment-free, or until the parameters (pH, Turbidity, Specific Conductivity, Dissolved Oxygen, Temperature) are stabilized for three (3) consecutive readings. The water being pulled from the well should be run through activated carbon filters to clean the water of contaminants or be drummed for disposal at a later time.

Once the well is running clear and sediment-free, the equipment should be pulled from the well and decontaminated before using in any other sampling.

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Sample Preservation, Containers, Handling and Storage

All equipment and bottleware associated with said wells are kept away from possible sources of contamination during transportation to and from site, as well as while on-site.

Once samples are collected, they are to be kept in a cooler on ice until picked-up by courier or taken to field trailer where they will be placed into a refrigerator.

Latex gloves are used to prevent cross-contamination and are always changed between wells.

Potential Problems

Overpumping is the most desirable method for monitoring well development, as it causes less destruction to the well pack compared to other forms.

Small submersible pumps, such as 2 inch diameter, are susceptible to clogging when used to develop wells due to the high amounts of fine materials.

Wells may run dry and recharge slowly, causing long delays in the development process. Wells should be purged until dry several times before development is considered complete.

Well Sampling Procedures

Coordinate site access and gain entry through necessary contacts and/or keys.

Once the well is opened, an air reading must be taken using a photoionization detector (PID) to analyze for volatile organic compounds (VOCs). If PID readings indicate a possible health and safety issues, please refer to trigger levels for appropriate PPE selection and other health and safety issues (i.e. air monitoring, respirators, evacuation.)

Using liquid level, gauge water level and total depth of the well and record on appropriate groundwater sampling data sheets.

Determine the water volume of the well.

Begin purging of the well, using a submersible pump, and take initial pH, temperature, turbidity, and specific conductivity of the water. Take note of the initial color, clarity and odor(s) of the water.

Continue purging of the well until three (3) consecutive readings of the above mentioned parameters are constant in succession. Once readings are taken, water should be run through an activated carbon filtration unit to remove potential contaminants.

Note: If developing a well, purge the well until the water is clear or the turbidity is below 50 NTUs.

Once the parameters are held constant, samples may be taken.

At this point the pump should be removed from the well, along with the tubing.

Using a disposable bailer, water should be taken from the well and deposited in the necessary bottleware, according to the specific regulations.

After the sampling is complete, equipment should be decontaminated before use in any other wells.

Samples should be labeled, placed in a cooler and sent to the lab for analysis.

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Drinking Water Sampling Instructions

NOTE: Bottles are provided pre-preserved and are to be filled as instructed in Section 1.0 with the exception of the analyses listed in Section 2.0.

Section 1.0 -General Sampling Instructions

1. Remove filters, screens, aerators, etc., from the tap.
2. Open the tap and allow water to flow for 5-10 minutes.
3. Adjust the flow to about 500mL/minute (i.e., a gentle stream about 1/8" in diameter.)
4. Fill the bottle with sample.

Note: Handle all bottles with care as many contain preservative solutions made with strong acids or bases.

Section 2.0 -Analyses with Special Sampling Instructions

Total Cyanide: EPA 335.4

Containers: (1) 125-mL nalgene bottle containing sodium arsenite de-oxidizing agent
(1) 125-mL wide-mouth jar containing sodium hydroxide (NaOH) preservative dropper

1. Fill the 125-mL container to the neck, as described in Section 1.0.
2. Cap the container and invert several times to mix.
3. Open the container and add 10 drops NaOH. Cap the container and invert several times to mix.

VOCs: EPA 524.2

Containers: (3) 40-mL glass vials containing ascorbic acid dechlorination agent
(1) plastic dropper bottle containing hydrochloric acid (HCI) preservative (Note: 1 dropper bottle can be used to preserve up to 5 samples; i.e., 1 dropper bottle provided per (15) 40-mL vials.)

1. Fill (3) 40-mL vials, as described in Section 1.0, until almost overflowing.

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2. Allow the vials to sit for 1 minute. Keep the water running.
3. Add 4 drops HCl to each vial.
4. Carefully fill each 40-mL vial to the very top with sample.
5. Replace the caps and tighten. Invert the vials and inspect for headspace (bubbles). If bubbles are present, open the vial, add extra sample, and re-cap.

SOCs: EPA 525.2

Containers: (2) 1-L amber glass bottles containing sodium sulfite
(2) 8-mL vials containing hydrochloric acid (HCl) preservative

1. Fill both 1-L containers to the neck, as described in Section 1.0.
2. Cap the containers and invert several times to mix.
3. Open each container. Add entire contents of one of the HCI vials to each container. Cap and invert several times to mix.

Diquat & Paraquat (EPA 549.2)

Containers: (1) 500-mL amber nalgene bottle containing sodium thiosulfate dechlorination agent
(1) 4-mL vial containing sulfuric acid (H2S04) preservative

1. Fill the 500-mL container to the neck, as described in Section 1.0.
2. Cap the container and invert several times to mix.
3. Open the container and add entire contents of H2S04 vial. Cap and invert several times to mix.

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Total & Fecal Coliform Sampling Procedure

All samples must be taken in a lab approved sterile sampling containers. This sample bottle contains a de-chlorinating tablet-please do not remove it. The sampling bottle must be kept closed until it is filled.

Sink tap sampling:

1. Remove screen or aerator for faucet.
2. If tap appears dirty, wipe it down with a dilute bleach solution.
3. Flush the line by turning tap fully on and letting it run for 2 to 3 minutes or for a time sufficient to permit clearing the service line.
4. Reduce water flow to permit filling the bottle without splashing.
5. Fill bottle to or just above the 100mL fill line.

Well Sampling:

1. If sampling from a well fitted with a hand pump, pump water to waste for about five (5) minutes before collecting sample.
2. If sampling from a well equipped with a mechanical pump, collect sample from a tap on the discharge.
3. If there is no pumping machinery, collect the sample directly from the well by means of a sterilized bottle fitted with a weight at the base. Take care to avoid contaminating sample by surface scum.

Note 1: Samples must be kept below 4°C on ice, but we do not accept frozen samples.

Note 2: Notify the lab in advance to accommodate the arrival of Fecal Coliform samples.

Note 3: Samples must also be delivered to the laboratory immediately in order to be delivered to the subcontracting lab within its 6 hour holding time from when the samples are taken for Fecal Coliform and 30 hour holding time from when the samples are taken for Total Coliform.

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Standard Operating Procedure for Helium Gas Tracer

The following is the standard operating procedure used by React Professional Services Group, Inc. (REPSG) for the use of a Helium Gas Tracer.

Scope and Application:

The use of helium gas tracing when collecting soil vapor samples is used to verify the integrity of the seal around the annular space of the soil gas probe and to determine whether or not ambient air could potentially contaminate the soil gas sample. If used correctly, the use of tracer gas can ensure that a given soil sample is representative of sub-surface conditions.

Equipment Requirements:

- Shroud (ie. Garbage Bag)
- High Grade Sand or Bentonite
- Duct Tape
- Helium Tank
- Tubing
- Purge Pump(pump should be variable in terms of purge rates per minute)
- Multi-Gas Detector
- Photo-Ionizing Detector(PID)
- Summa Canister

Method Summary:

1. Refer to "Sub-Slab Soil Vapor Sampling SOP" for instruction on how to install vapor points. The helium detection aspect of the sampling is used once the vapor point has been installed and sealed.

2. Once the vapor point has been set, and the bentonite/concrete has been allowed sufficient time to set, cover the entire area with the shroud. A garbage bag is often used as the shroud.

3. A small hole is made in the side of the shroud to allow the tubing from the vapor point to be connected to the helium detector. The area around the hole should be sealed via duct tape or other material.

4. At this point, sand, bentonite or another material should be spread over the edge of the shroud in an effort to prevent any tracer gas to escape from the shroud.

5. The helium detector should be turned on and readings should be taken.

6. The helium gas is pumped into the shroud, via tubing connected to the helium tank, for one minute.

7. Once the gas is turned off, the helium detector should be allowed to run for another two minutes to check for trace gas in the vapor point.

8. If tracer gas is detected in concentrations less than 10%, then the vapor point is sealed sufficiently and samples can be collected. If concentrations in excess of 10% are detected, the vapor point will need to be resealed. If resealing the point does not work, then a new point may need to be installed.

9. If helium concentrations are below acceptable limits, a purge pump is used to purge the line. Purge pumps with variable pump rates are best, with the optimal rate typically being 200mL/min, but no more.

10. The purge pump is connected to the vapor point tubing and our point is purged for the required amount of time based upon the equation below.

$$\frac{D^2 P_d (9.27)}{P_r} = P_t$$

Where:
D=Diameter of probe (inches)
P_d = Probe depth (feet)
P_r = Pump rate (liters/minute)
P_t = Purge time for one probe volume

11. The equation above is for **ONE** probe volume. The probe needs to be purged for three probe volumes immediately before samples are collected.

12. Samples should be collected via the details found in the "Sub-Slab Soil Vapor Sampling" SOP

References:

PADEP Bureau of Land Recycling and Waste Management: Document No. 253-0300-100
Final Draft Guidance on Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard, July 29, 2003.

ASTM Designation: D 5311-92; Standard Practice for “Soil Gas Monitoring in the Vadose Zone.”

Environmental Protection Agency 06/01/96; Standard Operating Procedure 2024;”Soil Gas Sampling.”

Pace Analytical Services, Inc.; “Instructions for Canister Grab Sampling”

NJDEP Vapor Intrusion Technical Guidance- January 2013, version 3.0

NJDEP Field Sampling Procedures Manual (August 2005) Chapter 9

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Standard Operating Procedure for Sub-Slab Soil Vapor Sampling

The following is the standard operating procedure used by React Environmental Professional Services Group, Inc. (REPSG) for the purpose of sub-slab soil vapor sampling.

Scope and Application:

The use of sub-slab soil vapor sampling is to collect samples from beneath the floor of existing structures and to ensure that representative samples are collected as per state and federal regulations.

Equipment Requirements:

- **Summa Canister (6 liter or 1 liter)**
- **Flow Controller**
- **¼" Tubing**
- **Wrenches**
- **High Grade Sand**
- **Bentonite**
- **Concrete**
- **Helium Detector**
- **Purge Pump**
- **Garbage Bag**
- **Hand Auger(s)**
- **PID**
- **Miscellaneous Hand Tools**

Decontamination Procedures:

All sampling equipment (Summa canisters and regulators) are decontaminated prior to use by a certified laboratory.

Sampling Procedure:

1. Upon arrival at site, a site walk should be conducted and the indoor air sampling form should be completed. If any questions or concerns are noted, Project Manager should be contacted on once, before sampling is conducted. Please see Note 1 below.

2. Mark the sampling locations for the Field Technician. Sub slab soil vapor samples should be collected at 4-5 feet below grade. (Take note to ensure no water has entered the boring, as this will damage summa canister and sample will not be collected.)

3. The steel probe or hand auger is driven to desired depth.

4. Excavated soils should be screened at six-inch intervals, using a PID, and any evidence of olfactory or visual signs of contamination.

5. Approximately 1-2" of high grade sand should be poured into the hole, to use as a base for the vapor point and anchor.

6. Once the sand has been poured, vapor point and anchor are placed into the hole.

7. Gas sampling tubing will be attached to the vapor point that is placed into the ground on a base of sand.

8. Once inside the borehole, cover the vapor point, anchor and attached tubing with high grade sand, until approximately 3-4" below grade.

9. Seal the rest of the borehole with bentonite. Be sure to wet the bentonite in order to create a good seal.

10. At this point, the vapor point should be helium tested. Please refer to Helium Testing SOP, linked in Note 5 below.

11. Once the helium testing is complete, purge the existing air from the tubing using an air pumping device.

12. Remove cap from the summa canister using a wrench and connect the tubing to the end of the summa canister.

13. Open the canister valve by turning the knob counter clockwise, one full turn

14. After letting the canister sit for the desired length of time, close the canister by turning the knob clockwise.
    Make sure to not allow canister to read "zero" on the gauge. The lab likes a reading of -5 Hg (+/- 1) for their use.

15. Remove the tubing from the summa canister and replace cap onto end of summa canister.

16. Dispose of tubing appropriately in accordance with all State and Federal Regulations.

17. Personnel must be sure to completely fill out special air sampling Chain of Custody with pertinent information.. Please see Note 2 below.

Sample Preservation and Transport:

1. Samples will be delivered within allowable holding times, with an appropriate chain of custody, to a state certified laboratory for analysis.

Notes:

1. Link to Indoor Air Sampling Forms…
   ..\..\NJDEP\Vapor Intrusion Guidance\Indoor air sampling forms.pdf

2. Link to Air Samples Chain of Custody…
   ..\..\NJDEP\Vapor Intrusion Guidance\Indoor Air Sampling COC.pdf

3. Link to Analysis of Volatiles by EPA To-15 method…
   ..\..\NJDEP\Vapor Intrusion Guidance\Analysis of Volatiles by EPA TO-15.pdf

4. Link to Air Canister Diagram…
   ..\..\NJDEP\Vapor Intrusion Guidance\Canister Diagram.pdf

References:

PADEP Bureau of Land Recycling and Waste Management: Document No. 253-0300-100
Final Draft Guidance on Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard, July 29, 2003.

ASTM Designation: D 5311-92; Standard Practice for "Soil Gas Monitoring in the Vadose Zone."

Environmental Protection Agency 06/01/96; Standard Operating Procedure 2024;"Soil Gas Sampling."

Pace Analytical Services, Inc.; "Instructions for Canister Grab Sampling"

NJDEP Vapor Intrusion Technical Guidance- January 2013, version 3.0

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ATTACHMENT 5: ANALYTICAL LABORATORY REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-52043-1
Client Project/Site: Calvert Citgo (5977)

For:
React Environmental Professional Service
6901 Kingsessing Avenue
STE 201
PO BOX 5377
Philadelphia, Pennsylvania 19142

Attn: James Manuel

Jill Miller

Authorized for release by:
3/15/2013 4:27:13 PM

Jill Miller
Senior Project Manager
jill.miller@testamericainc.com

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Client: React Environmental Professional Service
Project/Site: Calvert Citgo (5977)

TestAmerica Job ID: 460-52043-1

Qualifiers

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-52043-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-52043-1

Comments
No additional comments.

Receipt
The samples were received on 3/8/2013 8:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

GC/MS VOA
Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 151212 were outside control limits for multiple analytes. Toluene was present at a high concentration in the parent sample relative to the spike amount. The associated laboratory control sample (LCS) recoveries met acceptance criteria.

Method(s) 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: VMP-001:9.5-10.0, VMP-003:9.5-10.0. Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8015B: The following samples were diluted to bring the concentration of the target analyte within the calibration range: VMP-001:9.5-10.0, VMP-003:9.5-10.0. Elevated reporting limits (RLs) are provided.

Method(s) 8015B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for batch 150833 exceeded control limits for the following analyte: GRO. The LCS/LCSD recoveries were within control limits; therefore, the data has been flagged and reported.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: VMP-001:9.5-10.0
Date Collected: 03/07/13 10:30
Date Received: 03/08/13 20:00

Lab Sample ID: 460-52043-1
Matrix: Solid
Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Bromomethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Vinyl chloride	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Chloroethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Methylene Chloride	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Acetone	ND		630		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Carbon disulfide	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,1-Dichloroethene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,1-Dichloroethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
trans-1,2-Dichloroethene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
cis-1,2-Dichloroethene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Chloroform	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,2-Dichloroethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
2-Butanone	ND		630		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,1,1-Trichloroethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Carbon tetrachloride	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Bromodichloromethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,2-Dichloropropane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
cis-1,3-Dichloropropene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Trichloroethene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Dibromochloromethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,1,2-Trichloroethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Benzene	**720**		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
trans-1,3-Dichloropropene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Bromoform	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
4-Methyl-2-pentanone	ND		630		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
2-Hexanone	ND		630		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Tetrachloroethene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
1,1,2,2-Tetrachloroethane	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Toluene	**12000**		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Chlorobenzene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Ethylbenzene	**7000**		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Styrene	ND		130		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50
Xylenes, Total	**38000**		380		ug/Kg	☼	03/09/13 08:45	03/14/13 22:40	50

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
n-Heptane	*11000*		*ug/Kg*	☼	*5.09*	*142-82-5*	*03/09/13 08:45*	*03/14/13 22:40*	*50*
C8H18 Alkane-1	*8900*	*T J*	*ug/Kg*	☼	*6.84*		*03/09/13 08:45*	*03/14/13 22:40*	*50*
C9H20 Alkane	*8200*	*T J*	*ug/Kg*	☼	*8.48*		*03/09/13 08:45*	*03/14/13 22:40*	*50*
C9H12 Aromatic	*34000*	*T J*	*ug/Kg*	☼	*10.13*		*03/09/13 08:45*	*03/14/13 22:40*	*50*
1,3,5-Trimethylbenzene	*8100*		*ug/Kg*	☼	*10.20*	*108-67-8*	*03/09/13 08:45*	*03/14/13 22:40*	*50*
C9H12 Aromatic-1	*9400*	*T J*	*ug/Kg*	☼	*10.37*		*03/09/13 08:45*	*03/14/13 22:40*	*50*
1,2,4-Trimethylbenzene	*27000*		*ug/Kg*	☼	*10.52*	*95-63-6*	*03/09/13 08:45*	*03/14/13 22:40*	*50*
C9H12 Aromatic-2	*9200*	*T J*	*ug/Kg*	☼	*10.86*		*03/09/13 08:45*	*03/14/13 22:40*	*50*
C9H10 Aromatic/C10H14 Aromatic	*12000*	*T J*	*ug/Kg*	☼	*11.02*		*03/09/13 08:45*	*03/14/13 22:40*	*50*
C10H14 Aromatic-1	*14000*	*T J*	*ug/Kg*	☼	*11.07*		*03/09/13 08:45*	*03/14/13 22:40*	*50*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*75 - 135*	*03/09/13 08:45*	*03/14/13 22:40*	*50*
Bromofluorobenzene	*99*		*72 - 133*	*03/09/13 08:45*	*03/14/13 22:40*	*50*

Client Sample ID: VMP-001:9.5-10.0

Lab Sample ID: 460-52043-1

Date Collected: 03/07/13 10:30
Matrix: Solid
Date Received: 03/08/13 20:00
Percent Solids: 80.7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*85*		*59 - 150*	*03/09/13 08:45*	*03/14/13 22:40*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	**100000**	*	15000		ug/Kg	☼	03/09/13 09:20	03/12/13 14:55	250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	*81*		*70 - 130*	*03/09/13 09:20*	*03/12/13 14:55*	*250*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**19**		8.3		mg/Kg	☼	03/13/13 08:18	03/13/13 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*78*		*52 - 134*	*03/13/13 08:18*	*03/13/13 22:56*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**19**		1.0		%			03/12/13 13:12	1
Percent Solids	**81**		1.0		%			03/12/13 13:12	1

Client Sample ID: VMP-003:9.5-10.0

Lab Sample ID: 460-52043-2

Date Collected: 03/07/13 14:00
Matrix: Solid
Date Received: 03/08/13 20:00
Percent Solids: 77.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Bromomethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Vinyl chloride	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Chloroethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Methylene Chloride	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Acetone	ND		650		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Carbon disulfide	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,1-Dichloroethene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,1-Dichloroethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
trans-1,2-Dichloroethene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
cis-1,2-Dichloroethene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Chloroform	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,2-Dichloroethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
2-Butanone	**1500**		650		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,1,1-Trichloroethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Carbon tetrachloride	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Bromodichloromethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,2-Dichloropropane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
cis-1,3-Dichloropropene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Trichloroethene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Dibromochloromethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,1,2-Trichloroethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Benzene	**5500**		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50

Client Sample ID: VMP-003:9.5-10.0
Date Collected: 03/07/13 14:00
Date Received: 03/08/13 20:00

Lab Sample ID: 460-52043-2
Matrix: Solid
Percent Solids: 77.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Bromoform	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
4-Methyl-2-pentanone	ND		650		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
2-Hexanone	ND		650		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Tetrachloroethene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
1,1,2,2-Tetrachloroethane	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Toluene	**14000**		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Chlorobenzene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Ethylbenzene	**2300**		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Styrene	ND		130		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50
Xylenes, Total	**11000**		390		ug/Kg	☼	03/09/13 08:46	03/14/13 23:02	50

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
C7H16 Alkane	*1600*	*T J*	*ug/Kg*	☼	*4.38*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
C7H16 Alkane-1	*1800*	*T J*	*ug/Kg*	☼	*4.57*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
n-Heptane	*2400*		*ug/Kg*	☼	*5.09*	*142-82-5*	*03/09/13 08:46*	*03/14/13 23:02*	*50*
C8H18 Alkane-1	*1700*	*T J*	*ug/Kg*	☼	*6.84*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
C9H12 Aromatic	*6600*	*T J*	*ug/Kg*	☼	*10.13*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
C9H12 Aromatic-1	*1700*	*T J*	*ug/Kg*	☼	*10.38*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
1,2,4-Trimethylbenzene	*4100*		*ug/Kg*	☼	*10.52*	*95-63-6*	*03/09/13 08:46*	*03/14/13 23:02*	*50*
C9H12 Aromatic-2	*1800*	*T J*	*ug/Kg*	☼	*10.86*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
C9H10 Aromatic/C10H14 Aromatic	*2400*	*T J*	*ug/Kg*	☼	*11.02*		*03/09/13 08:46*	*03/14/13 23:02*	*50*
C10H14 Aromatic-1	*2100*	*T J*	*ug/Kg*	☼	*11.07*		*03/09/13 08:46*	*03/14/13 23:02*	*50*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 135*	*03/09/13 08:46*	*03/14/13 23:02*	*50*
Bromofluorobenzene	*95*		*72 - 133*	*03/09/13 08:46*	*03/14/13 23:02*	*50*
Toluene-d8 (Surr)	*83*		*59 - 150*	*03/09/13 08:46*	*03/14/13 23:02*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	**210000**	*	32000		ug/Kg	☼	03/09/13 09:21	03/12/13 15:19	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*70 - 130*	*03/09/13 09:21*	*03/12/13 15:19*	*500*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**16**		8.7		mg/Kg	☼	03/13/13 08:18	03/13/13 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*52 - 134*	*03/13/13 08:18*	*03/13/13 23:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**23**		1.0		%			03/12/13 13:12	1
Percent Solids	**77**		1.0		%			03/12/13 13:12	1

Lab Chronicle

Client: React Environmental Professional Service
Project/Site: Calvert Citgo (5977)

TestAmerica Job ID: 460-52043-1

Client Sample ID: VMP-001:9.5-10.0

Lab Sample ID: 460-52043-1

Date Collected: 03/07/13 10:30

Matrix: Solid

Date Received: 03/08/13 20:00

Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			150395	03/09/13 08:45	DM	TAL EDI
Total/NA	Analysis	8260B		50	151212	03/14/13 22:40	EM	TAL EDI
Total/NA	Prep	5035			150396	03/09/13 09:20	DM	TAL EDI
Total/NA	Analysis	8015B		250	150833	03/12/13 14:55	FJ	TAL EDI
Total/NA	Prep	3546			150876	03/13/13 08:18	HP	TAL EDI
Total/NA	Analysis	8015B		1	151168	03/13/13 22:56	DN	TAL EDI
Total/NA	Analysis	Moisture		1	150750	03/12/13 13:12	CHA	TAL EDI

Client Sample ID: VMP-003:9.5-10.0

Lab Sample ID: 460-52043-2

Date Collected: 03/07/13 14:00

Matrix: Solid

Date Received: 03/08/13 20:00

Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			150395	03/09/13 08:46	DM	TAL EDI
Total/NA	Analysis	8260B		50	151212	03/14/13 23:02	EM	TAL EDI
Total/NA	Prep	5035			150396	03/09/13 09:21	DM	TAL EDI
Total/NA	Analysis	8015B		500	150833	03/12/13 15:19	FJ	TAL EDI
Total/NA	Prep	3546			150876	03/13/13 08:18	HP	TAL EDI
Total/NA	Analysis	8015B		1	151168	03/13/13 23:10	DN	TAL EDI
Total/NA	Analysis	Moisture		1	150750	03/12/13 13:12	CHA	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: React Environmental Professional Service
Project/Site: Calvert Citgo (5977)

TestAmerica Job ID: 460-52043-1

Laboratory: TestAmerica Edison

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	04-30-13
New Jersey	NELAP	2	12028	06-30-13
New York	NELAP	2	11452	04-01-13
Pennsylvania	NELAP	3	68-00522	02-28-13
Rhode Island	State Program	1	LAO00132	12-30-13
USDA	Federal		NJCA-003-08	03-11-14

Method Summary

Client: React Environmental Professional Service
Project/Site: Calvert Citgo (5977)

TestAmerica Job ID: 460-52043-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8015B	Gasoline Range Organics - (GC)	SW846	TAL EDI
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: React Environmental Professional Service
Project/Site: Calvert Citgo (5977)

TestAmerica Job ID: 460-52043-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-52043-1	VMP-001:9.5-10.0	Solid	03/07/13 10:30	03/08/13 20:00
460-52043-2	VMP-003:9.5-10.0	Solid	03/07/13 14:00	03/08/13 20:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY REPORT

1008 W. Ninth Avenue
King of Prussia, PA 19406
(610) 337-9992
FAX (610) 337-9939

Client: REPSG, Inc.
Address: 6901 Kingsessing Ave.
Phila, PA 19142
Report to: E-mail: jmarud@repsg.com
Phone #: (215) 709-3020
Fax #: (215) 709-1557

Bill To: Same
Address:
Terms: Net 30 days
State & Program: MD
Phone #: ( )
Fax #: ( )

TAT: STD. (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY <24 HRS.
Received: ☐ ice ☐ ambient
DATE RESULTS NEEDED:
Deliverable Package: ☒ NO ☐ YES
Temp. Upon Receipt:
If Yes, please explain:

Project Name: Calvert Citgo/5977
Project #/PO#: PO# 7904
Sampler: BM

52043
LABORATORY ID NUMBER

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	# of Bottles Preservative Used: MeOH	DI	HCl	HNO_3	H_2SO_4	NaOH	NONE	TOTAL # OF BOTTLES	SAMPLES FIELD FILTERED ☐ YES ☐ NO	VOCs +10 via EPA method 8260	ANALYSIS TYPE	TPH-DRO	TPH-GRO	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED
1	VMP-001 : 9.5-10.0 PID:	3/7/13	10:30	SO							4	4		X		X	X		
2	VMP-0013 : 9.5-10.0 PID:	3/7/13	14:00	SO							4	4		X		X	X		
3	PID:																		
4	PID:																		
5	PID:																		
6	PID:																		
7	PID:																		
8	PID:																		
9	PID:																		
10	PID:																		

RELINQUISHED	DATE	RECEIVED	DATE
[signature]	3-8	[signature]	3-8-13
	TIME 1600		TIME 1600
RELINQUISHED	DATE 3/8	RECEIVED	DATE
	TIME 500		TIME

RELINQUISHED	DATE	RECEIVED	DATE
[signature]	3.8.13		
	TIME		TIME
RELINQUISHED	DATE 3/8	RECEIVED	DATE
[signature]	TIME 2000	[signature] 3/8/13	TIME 2000

COMMENTS: EQUIS EDD Required

2/3.1°C #4 N/C

PAGE 1 OF 1

TAL-4124-450 (0509)

Login Sample Receipt Checklist

Client: React Environmental Professional Service

Job Number: 460-52043-1

Login Number: 52043

List Source: TestAmerica Edison

List Number: 1

Creator: Keehn, Jeffrey S

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1° C IR #4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

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ANALYTICAL REPORT

Job Number: 460-52238-1

Job Description: Calvert Citgo (5977)

For:
React Environmental Professional Service
6901 Kingsessing Avenue
STE 201
PO BOX 5377
Philadelphia, PA 19142

Attention: James Manuel

Approved for release.
Jill K Miller
Senior Project Manager
3/26/2013 10:34 AM

Jill K Miller
Senior Project Manager
jill.miller@testamericainc.com
03/26/2013

cc: REPSG Invoices
Ms. Brenda MacPhail Kellogg

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

Comments
No additional comments.

Receipt
The samples were received on 3/8/2013 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice.

General Chemistry
Method(s) Lloyd Kahn: The laboratory did analyze each sample in batch 52982 in duplicate, and the (Total Organic Carbon) results of the two individual determinations were averaged in deriving a final result for a particular sample. In those instances when the two values yielded a relative percent difference greater than 40 percent, as was the case in the analysis of samples VMP-002:13.0-15.0, the laboratory did provide for additional determinations, and applied the “Dixon” outlier test to the total population of determinations. The results of that assessment are provided informationally in this submittal.

No other analytical or quality issues were noted.

Geotechnical
No analytical or quality issues were noted.

METHOD SUMMARY

Client: React Environmental Professional Service | Job Number: 460-52238-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Nitrogen, Nitrate-Nitrite	TAL BUF	MCAWW 353.2	
ASTM Leaching Procedure	TAL BUF		ASTM D3987-85
Percent Moisture	TAL BUR	EPA Moisture	
Nitrogen-Total Kjeldahl	TAL BUR	SM SM 4500 Norg C	
Preparation, Nitrogen -Total Kjeldahl	TAL BUR		SM SM4500Norg_C
Density of Soil in Place by the Drive-Cylinder Method	TAL BUR	ASTM D2937	
Moisture, Ash and Organic Matter	TAL BUR	ASTM D2974	
Grain Size	TAL BUR	ASTM D422	
Specific Gravity of Soils	TAL BUR	ASTM D854	
Porosity	TAL BUR	ASTM LAB-BUR	

Lab References:

TAL BUF = TestAmerica Buffalo

TAL BUR = TestAmerica Burlington

Method References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

SM = "Standard Methods For The Examination Of Water And Wastewater"

METHOD / ANALYST SUMMARY

Client: React Environmental Professional Service

Job Number: 460-52238-1

Method	Analyst	Analyst ID
MCAWW 353.2	Hacic, Nicole	NH
EPA Moisture	Nelson, Andrea J	AJN
SM SM 4500 Norg C	Nelson, Andrea J	AJN
ASTM D2937	Peterson, Mark A	MAP
ASTM D2974	Peterson, Mark A	MAP
ASTM D422	Peterson, Mark A	MAP
ASTM D854	Peterson, Mark A	MAP
ASTM LAB-BUR	Peterson, Mark A	MAP

SAMPLE SUMMARY

Client: React Environmental Professional Service

Job Number: 460-52238-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-52238-1	VMP-002:13.0-15.0	Solid	03/08/2013 1100	03/08/2013 1600
460-52238-2	VMP-002:20.0-22.0	Solid	03/08/2013 1130	03/08/2013 1600

General Chemistry

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 Date Sampled: 03/08/2013 1100

Client Matrix: Solid Date Received: 03/08/2013 1600

Analyte	Result	Qual	Units	RL	Dil	Method
Nitrate Nitrite as N-ASTM Leach	ND		mg/Kg	0.97	1.0	353.2
Analysis Batch: 480-108396	Analysis Date: 03/20/2013 1934					DryWt Corrected: N
Nitrogen, Kjeldahl	1.0		mg/Kg	0.27	1.0	SM 4500 Norg C
Analysis Batch: 200-53348	Analysis Date: 03/22/2013 1330					DryWt Corrected: Y
Prep Batch: 200-53307	Prep Date: 03/21/2013 0900					

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	74		%	0.25	1.0	Moisture
Analysis Batch: 200-52970	Analysis Date: 03/14/2013 1033					DryWt Corrected: N

General Chemistry

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 Date Sampled: 03/08/2013 1130
Client Matrix: Solid Date Received: 03/08/2013 1600

Analyte	Result	Qual	Units	RL	Dil	Method
Nitrate Nitrite as N-ASTM Leach	ND		mg/Kg	0.99	1.0	353.2
Analysis Batch: 480-108396	Analysis Date: 03/20/2013 1935					DryWt Corrected: N
Nitrogen, Kjeldahl	ND		mg/Kg	0.28	1.0	SM 4500 Norg C
Analysis Batch: 200-53348	Analysis Date: 03/22/2013 1330					DryWt Corrected: Y
Prep Batch: 200-53307	Prep Date: 03/21/2013 0900					

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	70		%	0.25	1.0	Moisture
Analysis Batch: 200-52970	Analysis Date: 03/14/2013 1033					DryWt Corrected: N

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

D2937 Density of Soil in Place by the Drive-Cylinder Method

Analysis Method:	D2937	Analysis Batch:	200-52948	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1703			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (g/cc)	Qualifier	NONE
In Place Density		1.14		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

D2937 Density of Soil in Place by the Drive-Cylinder Method

Analysis Method:	D2937	Analysis Batch:	200-52948	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1703			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (g/cc)	Qualifier	NONE
In Place Density		1.22		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

D2974 Moisture, Ash and Organic Matter

Analysis Method:	D2974	Analysis Batch:	200-52951	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1708			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Fractional Organic Carbon		3.3		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

D2974 Moisture, Ash and Organic Matter

Analysis Method:	D2974	Analysis Batch:	200-52951	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1708			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Fractional Organic Carbon		3.4		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-53114	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	460-52238-A-1.txt
Dilution:	1.0			Initial Weight/Volume:	118.59 g
Analysis Date:	03/13/2013 1740			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	NONE
Sieve Size 3 inch - Percent Finer		100.0		
Sieve Size 2 inch - Percent Finer		100.0		
Sieve Size 1.5 inch - Percent Finer		100.0		
Sieve Size 1 inch - Percent Finer		100.0		
Sieve Size 0.75 inch - Percent Finer		100.0		
Sieve Size 0.375 inch - Percent Finer		100.0		
Sieve Size #4 - Percent Finer		100.0		
Sieve Size #10 - Percent Finer		99.8		
Sieve Size #20 - Percent Finer		96.4		
Sieve Size #40 - Percent Finer		89.9		
Sieve Size #60 - Percent Finer		83.9		
Sieve Size #80 - Percent Finer		78.1		
Sieve Size #100 - Percent Finer		73.8		
Sieve Size #200 - Percent Finer		53.7		
Hydrometer Reading 1 - Percent Finer		30.3		
Hydrometer Reading 2 - Percent Finer		22.6		
Hydrometer Reading 3 - Percent Finer		14.9		
Hydrometer Reading 4 - Percent Finer		10.6		
Hydrometer Reading 5 - Percent Finer		7.2		
Hydrometer Reading 6 - Percent Finer		3.6		
Hydrometer Reading 7 - Percent Finer		1.9		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-53114	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	460-52238-A-1.txt
Dilution:	1.0			Initial Weight/Volume:	118.59 g
Analysis Date:	03/13/2013 1740			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		0.0		
Sand		46.3		
Coarse Sand		0.2		
Medium Sand		9.9		
Fine Sand		36.2		
Silt		46.6		
Clay		7.2		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-53114	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	460-52238-A-1.txt
Dilution:	1.0			Initial Weight/Volume:	118.59 g
Analysis Date:	03/13/2013 1740			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (um)	Qualifier	NONE
Hydrometer Reading 1 - Particle Size		28.9		
Hydrometer Reading 2 - Particle Size		19.3		
Hydrometer Reading 3 - Particle Size		11.7		
Hydrometer Reading 4 - Particle Size		8.5		
Hydrometer Reading 5 - Particle Size		6.2		
Hydrometer Reading 6 - Particle Size		3.0		
Hydrometer Reading 7 - Particle Size		1.3		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-53114	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	460-52238-A-2.txt
Dilution:	1.0			Initial Weight/Volume:	145.88 g
Analysis Date:	03/13/2013 1741			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	NONE
Sieve Size 3 inch - Percent Finer		100.0		
Sieve Size 2 inch - Percent Finer		100.0		
Sieve Size 1.5 inch - Percent Finer		100.0		
Sieve Size 1 inch - Percent Finer		100.0		
Sieve Size 0.75 inch - Percent Finer		100.0		
Sieve Size 0.375 inch - Percent Finer		100.0		
Sieve Size #4 - Percent Finer		100.0		
Sieve Size #10 - Percent Finer		99.5		
Sieve Size #20 - Percent Finer		96.4		
Sieve Size #40 - Percent Finer		89.5		
Sieve Size #60 - Percent Finer		80.4		
Sieve Size #80 - Percent Finer		70.3		
Sieve Size #100 - Percent Finer		63.5		
Sieve Size #200 - Percent Finer		44.1		
Hydrometer Reading 1 - Percent Finer		25.8		
Hydrometer Reading 2 - Percent Finer		19.5		
Hydrometer Reading 3 - Percent Finer		13.3		
Hydrometer Reading 4 - Percent Finer		9.9		
Hydrometer Reading 5 - Percent Finer		7.0		
Hydrometer Reading 6 - Percent Finer		2.9		
Hydrometer Reading 7 - Percent Finer		1.2		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-53114	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	460-52238-A-2.txt
Dilution:	1.0			Initial Weight/Volume:	145.88 g
Analysis Date:	03/13/2013 1741			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		0.0		
Sand		55.9		
Coarse Sand		0.5		
Medium Sand		10.0		
Fine Sand		45.4		
Silt		37.1		
Clay		7.0		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-53114	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	460-52238-A-2.txt
Dilution:	1.0			Initial Weight/Volume:	145.88 g
Analysis Date:	03/13/2013 1741			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (um)	Qualifier	NONE
Hydrometer Reading 1 - Particle Size		14.4		
Hydrometer Reading 2 - Particle Size		9.8		
Hydrometer Reading 3 - Particle Size		6.0		
Hydrometer Reading 4 - Particle Size		4.5		
Hydrometer Reading 5 - Particle Size		3.2		
Hydrometer Reading 6 - Particle Size		1.6		
Hydrometer Reading 7 - Particle Size		0.7		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

D854 Specific Gravity of Soils

Analysis Method:	D854	Analysis Batch:	200-52950	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1707			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	NONE
Specific Gravity at 20 deg Celsius		2.91		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

D854 Specific Gravity of Soils

Analysis Method:	D854	Analysis Batch:	200-52950	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1707			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	NONE
Specific Gravity at 20 deg Celsius		2.76		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:13.0-15.0**

Lab Sample ID: 460-52238-1 | Date Sampled: 03/08/2013 1100
Client Matrix: Solid | Date Received: 03/08/2013 1600

LAB-BUR Porosity

Analysis Method:	LAB-BUR	Analysis Batch:	200-52949	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1704			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Porosity		60.9		

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	NONE
Void Ratio		1.6		

Client: React Environmental Professional Service | Job Number: 460-52238-1

Client Sample ID: **VMP-002:20.0-22.0**

Lab Sample ID: 460-52238-2 | Date Sampled: 03/08/2013 1130
Client Matrix: Solid | Date Received: 03/08/2013 1600

LAB-BUR Porosity

Analysis Method:	LAB-BUR	Analysis Batch:	200-52949	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	03/13/2013 1704			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Porosity		55.9		

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	NONE
Void Ratio		1.3		

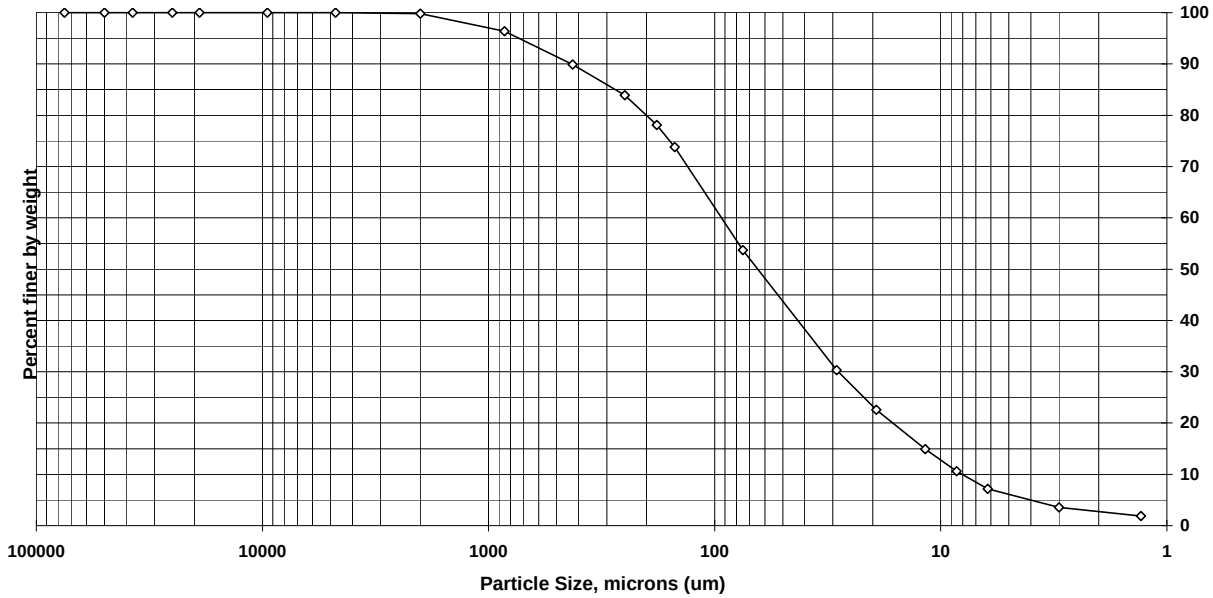
Particle Size of Soils by ASTM D422

				Date Received:	3/8/2013
Sample ID:	VMP-002:13.0-15.0	**Percent Solids:**	75.0%	**Start Date:**	3/13/2013
Lab ID:	460-52238-A-1	**Specific Gravity:**	2.905	**End Date:**	3/18/2013

Shape (> #10): angular

Non-soil material: n/a

Hardness (> #10): soft



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.8	0.2
#20	850	96.4	3.4
#40	425	89.9	6.5
#60	250	83.9	6.0
#80	180	78.1	5.8
#100	150	73.8	4.3
#200	75	53.7	20.1
Hyd1	28.9	30.3	23.4
Hyd2	19.3	22.6	7.7
Hyd3	11.7	14.9	7.7
Hyd4	8.5	10.6	4.3
Hyd5	6.2	7.2	3.4
Hyd6	3	3.6	3.6
Hyd7	1.3	1.9	1.7

Soil Classification	Percent of sample
Gravel	0.0
Sand	46.3
Coarse Sand	0.2
Medium Sand	9.9
Fine Sand	36.2
Silt	46.6
Clay	7.2

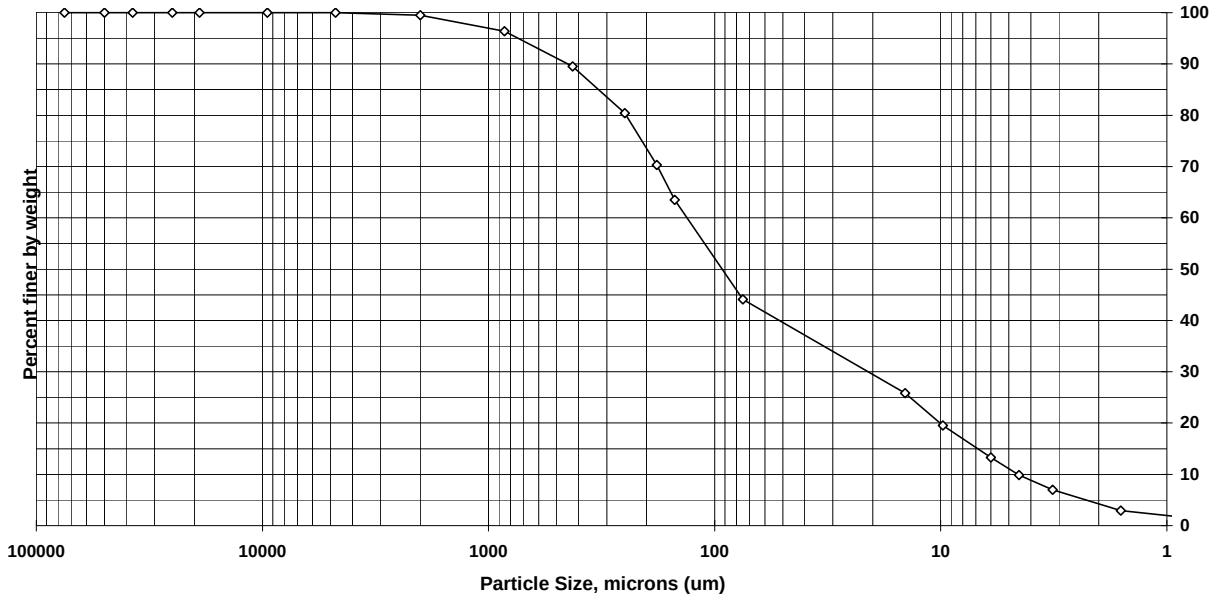
Particle Size of Soils by ASTM D422

				Date Received:	3/8/2013
Sample ID:	VMP-002:20.0-22.0	**Percent Solids:**	68.9%	**Start Date:**	3/13/2013
Lab ID:	460-52238-A-2	**Specific Gravity:**	7.761	**End Date:**	3/18/2013

Shape (> #10): angular

Non-soil material: n/a

Hardness (> #10): soft



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.5	0.5
#20	850	96.4	3.1
#40	425	89.5	6.9
#60	250	80.4	9.1
#80	180	70.3	10.1
#100	150	63.5	6.8
#200	75	44.1	19.4
Hyd1	14.4	25.8	18.3
Hyd2	9.8	19.5	6.3
Hyd3	6	13.3	6.2
Hyd4	4.5	9.9	3.5
Hyd5	3.2	7.0	2.8
Hyd6	1.6	2.9	4.1
Hyd7	0.7	1.2	1.7

Soil Classification	Percent of sample
Gravel	0.0
Sand	55.9
Coarse Sand	0.5
Medium Sand	10.0
Fine Sand	45.4
Silt	37.1
Clay	7.0

Sediment Grain Size - D422

Client	
Client Sample ID	VMP-002:13.0-15.0
Lab Sample ID	460-52238-A-1

Date Received	3/8/2013
Start Date	03/13/2013 17:40
End Date	03/18/2013 21:46

Dry Weight Determination

Tin Weight	3.98	g
Wet Sample + Tin	149.73	g
Dry Sample + Tin	113.24	g
% Moisture	25.04	%

Non-soil material:	n/a
Shape (> #10):	angular
Hardness (> #10):	soft

Date/Time in oven	03/13/2013 17:40
Date/Time out of oven	03/14/2013 16:36

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)		118.59	118.59
Sample Weight (Oven Dried)			88.9

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.22
Sample <#10			88.7
% Passing #10			74.8

Hydrometer Data

Serial Number	531857
Calib. Date (mm/dd/yyyy)	05/06/2010
Low Temp (C)	17.0
Reading at Low Temp	1.0045
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007333333
Default Soil Gravity	2.9050

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.76	462.98	0.22	g	99.8	Sand	Coarse
#20	850	381.70	384.75	3.05	g	96.4	Sand	Medium
#40	425	352.93	358.72	5.79	g	89.9	Sand	Medium
#60	250	340.79	346.13	5.34	g	83.9	Sand	Fine
#80	180	329.96	335.15	5.19	g	78.1	Sand	Fine
#100	150	327.01	330.84	3.83	g	73.8	Sand	Fine
#200	75	306.31	324.15	17.84	g	53.7	Sand	Fine
				0.00	g	53.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	88.9

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0215	21.0	28.9	30.3	Silt	
5	5	1.0170	21.0	19.3	22.6	Silt	
15	15	1.0125	21.0	11.7	14.9	Silt	
30	30	1.0100	21.0	8.5	10.6	Silt	
60	58	1.0080	21.0	6.2	7.15	Silt	
250	256	1.0060	20.5	3	3.57	Clay	
1440	1440	1.0050	20.5	1.3	1.86	Clay	

Sediment Grain Size - D422

Client	
Client Sample ID	VMP-002:20.0-22.0
Lab Sample ID	460-52238-A-2

Date Received	3/8/2013
Start Date	03/13/2013 17:41
End Date	03/18/2013 21:47

Dry Weight Determination

Tin Weight	4.02	g
Wet Sample + Tin	151.40	g
Dry Sample + Tin	105.58	g
% Moisture	31.09	%

Non-soil material:	n/a
Shape (> #10):	angular
Hardness (> #10):	soft

Date/Time in oven	03/13/2013 17:41
Date/Time out of oven	03/14/2013 16:36

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)		145.88	145.88
Sample Weight (Oven Dried)			101

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.47
Sample <#10			101
% Passing #10			69.2

Hydrometer Data

Serial Number	531857
Calib. Date (mm/dd/yyyy)	05/06/2010
Low Temp (C)	17.0
Reading at Low Temp	1.0045
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007333333
Default Soil Gravity	7.7611

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.76	463.23	0.47	g	99.5	Sand	Coarse
#20	850	381.70	384.80	3.10	g	96.4	Sand	Medium
#40	425	352.93	359.89	6.96	g	89.5	Sand	Medium
#60	250	340.79	349.95	9.16	g	80.4	Sand	Fine
#80	180	329.96	340.18	10.22	g	70.3	Sand	Fine
#100	150	327.01	333.86	6.85	g	63.5	Sand	Fine
#200	75	306.31	325.87	19.56	g	44.1	Sand	Fine
				0.00	g	44.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	101

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0265	21.0	14.4	25.8	Silt	
5	5	1.0210	21.0	9.8	19.5	Silt	
15	15	1.0155	21.0	6	13.3	Silt	
30	29	1.0125	21.0	4.5	9.85	Silt	
60	58	1.0100	21.0	3.2	7.01	Silt	
250	250	1.0065	20.5	1.6	2.94	Clay	
1440	1434	1.0050	20.5	0.7	1.23	Clay	

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Login Sample Receipt Checklist

Client: React Environmental Professional Service

Job Number: 460-52238-1

Login Number: 52238

List Source: TestAmerica Edison

List Number: 1

Creator: Malandra, Ryan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: React Environmental Professional Service

Job Number: 460-52238-1

Login Number: 52238
List Number: 1
Creator: Robison, Zachary

List Source: TestAmerica Buffalo
List Creation: 03/15/13 05:46 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: React Environmental Professional Service

Job Number: 460-52238-1

Login Number: 52238
List Number: 1
Creator: Gagne, Eric

List Source: TestAmerica Burlington
List Creation: 03/13/13 03:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No SEALS
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	16.2ºC, 18.6ºC & 15.8ºC IR GUN ID 181. CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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November 27, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9998923**
Purchase Order:	**7562**	Workorder ID:	**Drinking Water (11/16/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, November 16, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 9998923 Drinking Water (11/16/12) Discard Date: 12/11/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9998923001	MW-001_20121016_N	Ground Water	11/15/12 13:25	11/16/12 22:45	Customer
9998923002	MW-001R_20121016_N	Ground Water	11/15/12 12:35	11/16/12 22:45	Customer
9998923003	MW-002_20121016_N	Ground Water	11/16/12 14:45	11/16/12 22:45	Customer
9998923004	MW-003_20121016_N	Ground Water	11/15/12 11:40	11/16/12 22:45	Customer
9998923005	MW-003R_20121016_N	Ground Water	11/15/12 10:40	11/16/12 22:45	Customer
9998923006	MW-005_20121016_N	Ground Water	11/15/12 10:20	11/16/12 22:45	Customer
9998923007	MW-005R_20121016_N	Ground Water	11/15/12 10:55	11/16/12 22:45	Customer
9998923008	MW-006_20121016_N	Ground Water	11/15/12 12:30	11/16/12 22:45	Customer
9998923009	MW-007_20121016_N	Ground Water	11/15/12 13:20	11/16/12 22:45	Customer
9998923010	MW-008_20121016_N	Ground Water	11/16/12 13:20	11/16/12 22:45	Customer
9998923011	MW-008D_20121016_N	Ground Water	11/16/12 14:00	11/16/12 22:45	Customer
9998923012	DUP-001_20121016_FD	Ground Water	11/16/12 00:00	11/16/12 22:45	Customer
9998923013	FIELD BLANK-001_20121016_FB	Ground Water	11/16/12 12:12	11/16/12 22:45	Customer
9998923014	FIELD BLANK-002_20121016_FB	Ground Water	11/16/12 12:00	11/16/12 22:45	Customer
9998923015	TRIP BLANK-001_20121016_TB	Ground Water	11/15/12 00:00	11/16/12 22:45	Customer

Workorder Comments:

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SAMPLE SUMMARY

Workorder: 9998923 Drinking Water (11/16/12) Discard Date: 12/11/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923001** Date Collected: 11/15/2012 13:25 Matrix: Ground Water

Sample ID: **MW-001_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/19/12 17:35	DRS	B
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/19/12 17:35	DRS	B
tert-Amyl Alcohol	4720	ug/L		500	330	SW846 8260B			11/20/12 01:48	GLQ	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 17:35	DRS	B
Benzene	14500	ug/L		250	57.5	SW846 8260B			11/21/12 02:06	DD	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 17:35	DRS	B
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/19/12 17:35	DRS	B
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/19/12 17:35	DRS	B
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/19/12 17:35	DRS	B
2-Butanone	31.0	ug/L		10.0	1.8	SW846 8260B			11/19/12 17:35	DRS	B
tert-Butyl Alcohol	691	ug/L		10.0	2.2	SW846 8260B			11/19/12 17:35	DRS	B
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/19/12 17:35	DRS	B
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 17:35	DRS	B
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/19/12 17:35	DRS	B
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/19/12 17:35	DRS	B
Chloroethane	0.61J	ug/L		1.0	0.33	SW846 8260B			11/19/12 17:35	DRS	B
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/19/12 17:35	DRS	B
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 17:35	DRS	B
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/19/12 17:35	DRS	B
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/19/12 17:35	DRS	B
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 17:35	DRS	B
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/19/12 17:35	DRS	B
1,2-Dichloroethane	8.5	ug/L		1.0	0.32	SW846 8260B			11/19/12 17:35	DRS	B
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 17:35	DRS	B
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 17:35	DRS	B
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/19/12 17:35	DRS	B
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/19/12 17:35	DRS	B
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/19/12 17:35	DRS	B
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 17:35	DRS	B
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 17:35	DRS	B
Diisopropyl ether	19.5	ug/L		1.0	0.25	SW846 8260B			11/19/12 17:35	DRS	B
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/19/12 17:35	DRS	B
Ethylbenzene	1590	ug/L		50.0	17.0	SW846 8260B			11/20/12 01:48	GLQ	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/19/12 17:35	DRS	B
Methyl t-Butyl Ether	27.8	ug/L		1.0	0.33	SW846 8260B			11/19/12 17:35	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/19/12 17:35	DRS	B
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/19/12 17:35	DRS	B
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/19/12 17:35	DRS	B
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/19/12 17:35	DRS	B
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/19/12 17:35	DRS	B

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923001** Date Collected: 11/15/2012 13:25 Matrix: Ground Water

Sample ID: **MW-001_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	522	ug/L		50.0	11.5	SW846 8260B			11/20/12 01:48	GLQ	C
Total Xylenes	2540	ug/L		150	33.0	SW846 8260B			11/20/12 01:48	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/19/12 17:35	DRS	B
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 17:35	DRS	B
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 17:35	DRS	B
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/19/12 17:35	DRS	B
o-Xylene	78.0	ug/L		50.0	16.5	SW846 8260B			11/20/12 01:48	GLQ	C
mp-Xylene	2460	ug/L		100	26.0	SW846 8260B			11/20/12 01:48	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	78.4	%		62-133		SW846 8260B			11/19/12 17:35	DRS	B
4-Bromofluorobenzene (S)	92.3	%		79-114		SW846 8260B			11/19/12 17:35	DRS	B
Dibromofluoromethane (S)	85.8	%		78-116		SW846 8260B			11/19/12 17:35	DRS	B
Toluene-d8 (S)	111	%		76-127		SW846 8260B			11/19/12 17:35	DRS	B
1,2-Dichloroethane-d4 (S)	86.2	%		62-133		SW846 8260B			11/20/12 01:48	GLQ	C
4-Bromofluorobenzene (S)	82.9	%		79-114		SW846 8260B			11/20/12 01:48	GLQ	C
Dibromofluoromethane (S)	87.7	%		78-116		SW846 8260B			11/20/12 01:48	GLQ	C
Toluene-d8 (S)	89.9	%		76-127		SW846 8260B			11/20/12 01:48	GLQ	C
1,2-Dichloroethane-d4 (S)	78.3	%		62-133		SW846 8260B			11/21/12 02:06	DD	C
4-Bromofluorobenzene (S)	84.6	%		79-114		SW846 8260B			11/21/12 02:06	DD	C
Dibromofluoromethane (S)	84.9	%		78-116		SW846 8260B			11/21/12 02:06	DD	C
Toluene-d8 (S)	88.2	%		76-127		SW846 8260B			11/21/12 02:06	DD	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	2.4	mg/L		0.84	0.074	SW846 8015C	11/19/12	BS	11/21/12 21:04	EGO	A1
Gasoline Range Organics	19600	ug/L		1000	139	SW846 8015C			11/21/12 07:35	ECR	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	54.1	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 21:04	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	92.9	%		90-129		SW846 8015C			11/21/12 07:35	ECR	B

Sample Comments:

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected in the sample. Reporting limits were adjusted accordingly.

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID:	**9998923001**	Date Collected:	11/15/2012 13:25	Matrix:	Ground Water
Sample ID:	**MW-001_20121016_N**	Date Received:	11/16/2012 22:45		

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923002** Date Collected: 11/15/2012 12:35 Matrix: Ground Water

Sample ID: **MW-001R_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/19/12 18:09	DRS	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/19/12 18:09	DRS	C
tert-Amyl Alcohol	2720	ug/L		50.0	33.0	SW846 8260B			11/20/12 02:22	GLQ	D
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 18:09	DRS	C
Benzene	81.9	ug/L		1.0	0.23	SW846 8260B			11/19/12 18:09	DRS	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 18:09	DRS	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/19/12 18:09	DRS	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/19/12 18:09	DRS	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/19/12 18:09	DRS	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/19/12 18:09	DRS	C
tert-Butyl Alcohol	1360	ug/L		50.0	11.0	SW846 8260B			11/20/12 02:22	GLQ	D
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/19/12 18:09	DRS	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 18:09	DRS	C
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/19/12 18:09	DRS	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/19/12 18:09	DRS	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:09	DRS	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/19/12 18:09	DRS	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 18:09	DRS	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/19/12 18:09	DRS	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/19/12 18:09	DRS	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:09	DRS	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/19/12 18:09	DRS	C
1,2-Dichloroethane	114	ug/L		1.0	0.32	SW846 8260B			11/19/12 18:09	DRS	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 18:09	DRS	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 18:09	DRS	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/19/12 18:09	DRS	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/19/12 18:09	DRS	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/19/12 18:09	DRS	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 18:09	DRS	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 18:09	DRS	C
Diisopropyl ether	26.5	ug/L		1.0	0.25	SW846 8260B			11/19/12 18:09	DRS	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/19/12 18:09	DRS	C
Ethylbenzene	12.3	ug/L		1.0	0.34	SW846 8260B			11/19/12 18:09	DRS	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/19/12 18:09	DRS	C
Methyl t-Butyl Ether	89.0	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:09	DRS	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/19/12 18:09	DRS	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/19/12 18:09	DRS	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/19/12 18:09	DRS	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/19/12 18:09	DRS	C
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/19/12 18:09	DRS	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923002** Date Collected: 11/15/2012 12:35 Matrix: Ground Water

Sample ID: **MW-001R_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	59.5	ug/L		1.0	0.23	SW846 8260B			11/19/12 18:09	DRS	C
Total Xylenes	58.8	ug/L		3.0	0.66	SW846 8260B			11/19/12 18:09	DRS	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/19/12 18:09	DRS	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:09	DRS	C
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:09	DRS	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/19/12 18:09	DRS	C
o-Xylene	16.3	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:09	DRS	C
mp-Xylene	42.5	ug/L		2.0	0.52	SW846 8260B			11/19/12 18:09	DRS	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	75.4	%		62-133		SW846 8260B			11/19/12 18:09	DRS	C
4-Bromofluorobenzene (S)	83.9	%		79-114		SW846 8260B			11/19/12 18:09	DRS	C
Dibromofluoromethane (S)	83.8	%		78-116		SW846 8260B			11/19/12 18:09	DRS	C
Toluene-d8 (S)	88.9	%		76-127		SW846 8260B			11/19/12 18:09	DRS	C
1,2-Dichloroethane-d4 (S)	95.5	%		62-133		SW846 8260B			11/20/12 02:22	GLQ	D
4-Bromofluorobenzene (S)	84	%		79-114		SW846 8260B			11/20/12 02:22	GLQ	D
Dibromofluoromethane (S)	90.9	%		78-116		SW846 8260B			11/20/12 02:22	GLQ	D
Toluene-d8 (S)	90.9	%		76-127		SW846 8260B			11/20/12 02:22	GLQ	D
PETROLEUM HC's											
Diesel Range Organics C10-C28	0.92	mg/L		0.16	0.014	SW846 8015C	11/19/12	BS	11/20/12 21:54	EGO	A1
Gasoline Range Organics	1080	ug/L		100	13.9	SW846 8015C			11/21/12 06:18	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	50.6	%		26-139		SW846 8015C	11/19/12	BS	11/20/12 21:54	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	98.6	%		90-129		SW846 8015C			11/21/12 06:18	ECR	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923003** Date Collected: 11/16/2012 14:45 Matrix: Ground Water

Sample ID: **MW-002_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/19/12 18:42	DRS	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/19/12 18:42	DRS	C
tert-Amyl Alcohol	298	ug/L	1,2	10.0	6.6	SW846 8260B			11/19/12 18:42	DRS	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 18:42	DRS	C
Benzene	48.6	ug/L		1.0	0.23	SW846 8260B			11/19/12 18:42	DRS	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 18:42	DRS	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/19/12 18:42	DRS	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/19/12 18:42	DRS	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/19/12 18:42	DRS	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/19/12 18:42	DRS	C
tert-Butyl Alcohol	206	ug/L	3,4	10.0	2.2	SW846 8260B			11/19/12 18:42	DRS	C
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/19/12 18:42	DRS	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 18:42	DRS	C
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/19/12 18:42	DRS	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/19/12 18:42	DRS	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:42	DRS	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/19/12 18:42	DRS	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 18:42	DRS	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/19/12 18:42	DRS	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/19/12 18:42	DRS	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:42	DRS	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/19/12 18:42	DRS	C
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 18:42	DRS	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 18:42	DRS	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/19/12 18:42	DRS	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/19/12 18:42	DRS	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/19/12 18:42	DRS	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/19/12 18:42	DRS	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/19/12 18:42	DRS	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/19/12 18:42	DRS	C
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			11/19/12 18:42	DRS	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/19/12 18:42	DRS	C
Ethylbenzene	1.1	ug/L		1.0	0.34	SW846 8260B			11/19/12 18:42	DRS	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/19/12 18:42	DRS	C
Methyl t-Butyl Ether	17.6	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:42	DRS	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/19/12 18:42	DRS	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/19/12 18:42	DRS	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/19/12 18:42	DRS	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/19/12 18:42	DRS	C
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/19/12 18:42	DRS	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923003** Date Collected: 11/16/2012 14:45 Matrix: Ground Water

Sample ID: **MW-002_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	0.35J	ug/L		1.0	0.23	SW846 8260B			11/19/12 18:42	DRS	C
Total Xylenes	3.1	ug/L		3.0	0.66	SW846 8260B			11/19/12 18:42	DRS	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/19/12 18:42	DRS	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:42	DRS	C
Trichloroethene	1.1	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:42	DRS	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/19/12 18:42	DRS	C
o-Xylene	1.0	ug/L		1.0	0.33	SW846 8260B			11/19/12 18:42	DRS	C
mp-Xylene	2.1	ug/L		2.0	0.52	SW846 8260B			11/19/12 18:42	DRS	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	78	%		62-133		SW846 8260B			11/19/12 18:42	DRS	C
4-Bromofluorobenzene (S)	86.4	%		79-114		SW846 8260B			11/19/12 18:42	DRS	C
Dibromofluoromethane (S)	85.4	%		78-116		SW846 8260B			11/19/12 18:42	DRS	C
Toluene-d8 (S)	88.4	%		76-127		SW846 8260B			11/19/12 18:42	DRS	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	0.39	mg/L		0.17	0.015	SW846 8015C	11/19/12	BS	11/20/12 22:58	EGO	A1
Gasoline Range Organics	180	ug/L		100	13.9	SW846 8015C			11/21/12 05:40	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	62	%		26-139		SW846 8015C	11/19/12	BS	11/20/12 22:58	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	109	%		90-129		SW846 8015C			11/21/12 05:40	ECR	C

Sample Comments:

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923004** Date Collected: 11/15/2012 11:40 Matrix: Ground Water

Sample ID: **MW-003_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	105	ug/L		50.0	15.5	SW846 8260B			11/20/12 04:03	GLQ	C
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			11/20/12 04:03	GLQ	C
tert-Amyl Alcohol	161	ug/L		50.0	33.0	SW846 8260B			11/20/12 04:03	GLQ	C
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 04:03	GLQ	C
Benzene	66.1	ug/L		5.0	1.2	SW846 8260B			11/20/12 04:03	GLQ	C
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 04:03	GLQ	C
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 04:03	GLQ	C
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 04:03	GLQ	C
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 04:03	GLQ	C
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			11/20/12 04:03	GLQ	C
tert-Butyl Alcohol	322	ug/L		50.0	11.0	SW846 8260B			11/20/12 04:03	GLQ	C
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 04:03	GLQ	C
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 04:03	GLQ	C
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			11/20/12 04:03	GLQ	C
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 04:03	GLQ	C
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 04:03	GLQ	C
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 04:03	GLQ	C
Chloromethane	7.3	ug/L		5.0	1.6	SW846 8260B			11/20/12 04:03	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			11/20/12 04:03	GLQ	C
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 04:03	GLQ	C
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 04:03	GLQ	C
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 04:03	GLQ	C
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 04:03	GLQ	C
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 04:03	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 04:03	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 04:03	GLQ	C
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			11/20/12 04:03	GLQ	C
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 04:03	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 04:03	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 04:03	GLQ	C
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 04:03	GLQ	C
Ethyl tert-butyl ether	6.1	ug/L		5.0	0.95	SW846 8260B			11/20/12 04:03	GLQ	C
Ethylbenzene	1250	ug/L		100	34.0	SW846 8260B			11/20/12 04:37	GLQ	C
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			11/20/12 04:03	GLQ	C
Methyl t-Butyl Ether	7.2	ug/L		5.0	1.7	SW846 8260B			11/20/12 04:03	GLQ	C
4-Methyl-2-Pentanone(MIBK)	18.9J	ug/L		25.0	7.5	SW846 8260B			11/20/12 04:03	GLQ	C
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 04:03	GLQ	C
Styrene	3.6J	ug/L		5.0	1.2	SW846 8260B			11/20/12 04:03	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 04:03	GLQ	C
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			11/20/12 04:03	GLQ	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923004** Date Collected: 11/15/2012 11:40 Matrix: Ground Water

Sample ID: **MW-003_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	816	ug/L		5.0	1.2	SW846 8260B			11/20/12 04:03	GLQ	C
Total Xylenes	5910	ug/L		300	66.0	SW846 8260B			11/20/12 04:37	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 04:03	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 04:03	GLQ	C
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 04:03	GLQ	C
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 04:03	GLQ	C
o-Xylene	1620	ug/L		100	33.0	SW846 8260B			11/20/12 04:37	GLQ	C
mp-Xylene	4290	ug/L		200	52.0	SW846 8260B			11/20/12 04:37	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	87.9	%		62-133		SW846 8260B			11/20/12 04:03	GLQ	C
4-Bromofluorobenzene (S)	83.7	%		79-114		SW846 8260B			11/20/12 04:03	GLQ	C
Dibromofluoromethane (S)	88	%		78-116		SW846 8260B			11/20/12 04:03	GLQ	C
Toluene-d8 (S)	93.7	%		76-127		SW846 8260B			11/20/12 04:03	GLQ	C
1,2-Dichloroethane-d4 (S)	83.1	%		62-133		SW846 8260B			11/20/12 04:37	GLQ	C
4-Bromofluorobenzene (S)	83.3	%		79-114		SW846 8260B			11/20/12 04:37	GLQ	C
Dibromofluoromethane (S)	87.8	%		78-116		SW846 8260B			11/20/12 04:37	GLQ	C
Toluene-d8 (S)	88.3	%		76-127		SW846 8260B			11/20/12 04:37	GLQ	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	4.2	mg/L		1.6	0.14	SW846 8015C	11/19/12	BS	11/21/12 22:09	EGO	A1
Gasoline Range Organics	19600	ug/L		5000	695	SW846 8015C			11/21/12 10:41	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	49.8	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 22:09	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	116	%		90-129		SW846 8015C			11/21/12 10:41	ECR	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected in the sample. Reporting limits were adjusted accordingly.

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID:	**9998923004**	Date Collected:	11/15/2012 11:40	Matrix:	Ground Water
Sample ID:	**MW-003_20121016_N**	Date Received:	11/16/2012 22:45		

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923005** Date Collected: 11/15/2012 10:40 Matrix: Ground Water

Sample ID: **MW-003R_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/21/12 01:32	DD	D
tert-Amyl methyl ether	0.84J	ug/L		1.0	0.20	SW846 8260B			11/21/12 01:32	DD	D
tert-Amyl Alcohol	179	ug/L		10.0	6.6	SW846 8260B			11/21/12 01:32	DD	D
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/21/12 01:32	DD	D
Benzene	152	ug/L		1.0	0.23	SW846 8260B			11/21/12 01:32	DD	D
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/21/12 01:32	DD	D
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/21/12 01:32	DD	D
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/21/12 01:32	DD	D
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/21/12 01:32	DD	D
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/21/12 01:32	DD	D
tert-Butyl Alcohol	296	ug/L		10.0	2.2	SW846 8260B			11/21/12 01:32	DD	D
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/21/12 01:32	DD	D
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/21/12 01:32	DD	D
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/21/12 01:32	DD	D
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/21/12 01:32	DD	D
Chloroethane	0.34J	ug/L		1.0	0.33	SW846 8260B			11/21/12 01:32	DD	D
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/21/12 01:32	DD	D
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/21/12 01:32	DD	D
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/21/12 01:32	DD	D
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/21/12 01:32	DD	D
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/21/12 01:32	DD	D
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/21/12 01:32	DD	D
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/21/12 01:32	DD	D
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/21/12 01:32	DD	D
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/21/12 01:32	DD	D
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/21/12 01:32	DD	D
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/21/12 01:32	DD	D
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/21/12 01:32	DD	D
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/21/12 01:32	DD	D
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/21/12 01:32	DD	D
Diisopropyl ether	2.6	ug/L		1.0	0.25	SW846 8260B			11/21/12 01:32	DD	D
Ethyl tert-butyl ether	10.2	ug/L		1.0	0.19	SW846 8260B			11/21/12 01:32	DD	D
Ethylbenzene	56.6	ug/L		1.0	0.34	SW846 8260B			11/21/12 01:32	DD	D
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/21/12 01:32	DD	D
Methyl t-Butyl Ether	17.0	ug/L		1.0	0.33	SW846 8260B			11/21/12 01:32	DD	D
4-Methyl-2-Pentanone(MIBK)	6.5	ug/L		5.0	1.5	SW846 8260B			11/21/12 01:32	DD	D
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/21/12 01:32	DD	D
Styrene	0.35J	ug/L		1.0	0.24	SW846 8260B			11/21/12 01:32	DD	D
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/21/12 01:32	DD	D
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/21/12 01:32	DD	D

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923005** Date Collected: 11/15/2012 10:40 Matrix: Ground Water

Sample ID: **MW-003R_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	79.9	ug/L		1.0	0.23	SW846 8260B			11/21/12 01:32	DD	D
Total Xylenes	187	ug/L		3.0	0.66	SW846 8260B			11/21/12 01:32	DD	D
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/21/12 01:32	DD	D
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/21/12 01:32	DD	D
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/21/12 01:32	DD	D
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/21/12 01:32	DD	D
o-Xylene	82.2	ug/L		1.0	0.33	SW846 8260B			11/21/12 01:32	DD	D
mp-Xylene	105	ug/L		2.0	0.52	SW846 8260B			11/21/12 01:32	DD	D
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	84.7	%		62-133		SW846 8260B			11/21/12 01:32	DD	D
4-Bromofluorobenzene (S)	81.6	%		79-114		SW846 8260B			11/21/12 01:32	DD	D
Dibromofluoromethane (S)	85.9	%		78-116		SW846 8260B			11/21/12 01:32	DD	D
Toluene-d8 (S)	88.2	%		76-127		SW846 8260B			11/21/12 01:32	DD	D
PETROLEUM HC's											
Diesel Range Organics C10-C28	1.7	mg/L		0.17	0.015	SW846 8015C	11/20/12	CAC	11/21/12 18:56	EGO	A1
Gasoline Range Organics	2240	ug/L		500	69.5	SW846 8015C			11/21/12 08:50	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	42.8	%		26-139		SW846 8015C	11/20/12	CAC	11/21/12 18:56	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	93.5	%		90-129		SW846 8015C			11/21/12 08:50	ECR	C

Sample Comments:

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923006** Date Collected: 11/15/2012 10:20 Matrix: Ground Water

Sample ID: **MW-005_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	763	ug/L		50.0	15.5	SW846 8260B			11/20/12 06:52	GLQ	C
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			11/20/12 06:52	GLQ	C
tert-Amyl Alcohol	1510	ug/L		50.0	33.0	SW846 8260B			11/20/12 06:52	GLQ	C
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 06:52	GLQ	C
Benzene	475	ug/L		5.0	1.2	SW846 8260B			11/20/12 06:52	GLQ	C
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 06:52	GLQ	C
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 06:52	GLQ	C
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 06:52	GLQ	C
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 06:52	GLQ	C
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			11/20/12 06:52	GLQ	C
tert-Butyl Alcohol	433	ug/L		50.0	11.0	SW846 8260B			11/20/12 06:52	GLQ	C
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 06:52	GLQ	C
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 06:52	GLQ	C
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			11/20/12 06:52	GLQ	C
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 06:52	GLQ	C
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 06:52	GLQ	C
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 06:52	GLQ	C
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 06:52	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			11/20/12 06:52	GLQ	C
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 06:52	GLQ	C
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 06:52	GLQ	C
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 06:52	GLQ	C
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 06:52	GLQ	C
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 06:52	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 06:52	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 06:52	GLQ	C
Dichlorofluoromethane	2.6J	ug/L		5.0	1.9	SW846 8260B			11/20/12 06:52	GLQ	C
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 06:52	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 06:52	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 06:52	GLQ	C
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 06:52	GLQ	C
Ethyl tert-butyl ether	3.1J	ug/L		5.0	0.95	SW846 8260B			11/20/12 06:52	GLQ	C
Ethylbenzene	2940	ug/L		100	34.0	SW846 8260B			11/20/12 07:25	GLQ	C
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			11/20/12 06:52	GLQ	C
Methyl t-Butyl Ether	14.0	ug/L		5.0	1.7	SW846 8260B			11/20/12 06:52	GLQ	C
4-Methyl-2-Pentanone(MIBK)	175	ug/L		25.0	7.5	SW846 8260B			11/20/12 06:52	GLQ	C
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 06:52	GLQ	C
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 06:52	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 06:52	GLQ	C
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			11/20/12 06:52	GLQ	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923006** Date Collected: 11/15/2012 10:20 Matrix: Ground Water

Sample ID: **MW-005_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	12800	ug/L		500	115	SW846 8260B			11/21/12 00:58	DD	B
Total Xylenes	14300	ug/L		300	66.0	SW846 8260B			11/20/12 07:25	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 06:52	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 06:52	GLQ	C
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 06:52	GLQ	C
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 06:52	GLQ	C
o-Xylene	4270	ug/L		100	33.0	SW846 8260B			11/20/12 07:25	GLQ	C
mp-Xylene	9990	ug/L		200	52.0	SW846 8260B			11/20/12 07:25	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83	%		62-133		SW846 8260B			11/20/12 06:52	GLQ	C
4-Bromofluorobenzene (S)	86.3	%		79-114		SW846 8260B			11/20/12 06:52	GLQ	C
Dibromofluoromethane (S)	85.6	%		78-116		SW846 8260B			11/20/12 06:52	GLQ	C
Toluene-d8 (S)	103	%		76-127		SW846 8260B			11/20/12 06:52	GLQ	C
1,2-Dichloroethane-d4 (S)	76	%		62-133		SW846 8260B			11/20/12 07:25	GLQ	C
4-Bromofluorobenzene (S)	79.8	%		79-114		SW846 8260B			11/20/12 07:25	GLQ	C
Dibromofluoromethane (S)	82.9	%		78-116		SW846 8260B			11/20/12 07:25	GLQ	C
Toluene-d8 (S)	88.6	%		76-127		SW846 8260B			11/20/12 07:25	GLQ	C
1,2-Dichloroethane-d4 (S)	86.5	%		62-133		SW846 8260B			11/21/12 00:58	DD	B
4-Bromofluorobenzene (S)	83.7	%		79-114		SW846 8260B			11/21/12 00:58	DD	B
Dibromofluoromethane (S)	90.5	%		78-116		SW846 8260B			11/21/12 00:58	DD	B
Toluene-d8 (S)	88	%		76-127		SW846 8260B			11/21/12 00:58	DD	B
PETROLEUM HC's											
Diesel Range Organics C10-C28	11.2	mg/L		1.6	0.14	SW846 8015C	11/19/12	BS	11/22/12 00:19	EGO	A1
Gasoline Range Organics	133000	ug/L		5000	695	SW846 8015C			11/27/12 02:36	ECR	F
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	64.5	%		26-139		SW846 8015C	11/19/12	BS	11/22/12 00:19	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	113	%		90-129		SW846 8015C			11/27/12 02:36	ECR	F

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected in the sample. Reporting limits were adjusted accordingly.

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID:	**9998923006**	Date Collected:	11/15/2012 10:20	Matrix:	Ground Water
Sample ID:	**MW-005_20121016_N**	Date Received:	11/16/2012 22:45		

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923007** Date Collected: 11/15/2012 10:55 Matrix: Ground Water

Sample ID: **MW-005R_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	387	ug/L		50.0	15.5	SW846 8260B			11/20/12 05:11	GLQ	C
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			11/20/12 05:11	GLQ	C
tert-Amyl Alcohol	1310	ug/L		50.0	33.0	SW846 8260B			11/20/12 05:11	GLQ	C
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 05:11	GLQ	C
Benzene	8660	ug/L		500	115	SW846 8260B			11/20/12 05:45	GLQ	C
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 05:11	GLQ	C
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 05:11	GLQ	C
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 05:11	GLQ	C
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 05:11	GLQ	C
2-Butanone	238	ug/L		50.0	9.0	SW846 8260B			11/20/12 05:11	GLQ	C
tert-Butyl Alcohol	242	ug/L		50.0	11.0	SW846 8260B			11/20/12 05:11	GLQ	C
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 05:11	GLQ	C
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 05:11	GLQ	C
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			11/20/12 05:11	GLQ	C
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 05:11	GLQ	C
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 05:11	GLQ	C
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 05:11	GLQ	C
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 05:11	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			11/20/12 05:11	GLQ	C
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 05:11	GLQ	C
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 05:11	GLQ	C
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 05:11	GLQ	C
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 05:11	GLQ	C
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 05:11	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 05:11	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 05:11	GLQ	C
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			11/20/12 05:11	GLQ	C
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 05:11	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 05:11	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 05:11	GLQ	C
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 05:11	GLQ	C
Ethyl tert-butyl ether	4.3J	ug/L		5.0	0.95	SW846 8260B			11/20/12 05:11	GLQ	C
Ethylbenzene	2740	ug/L		500	170	SW846 8260B			11/20/12 05:45	GLQ	C
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			11/20/12 05:11	GLQ	C
Methyl t-Butyl Ether	8.7	ug/L		5.0	1.7	SW846 8260B			11/20/12 05:11	GLQ	C
4-Methyl-2-Pentanone(MIBK)	214	ug/L		25.0	7.5	SW846 8260B			11/20/12 05:11	GLQ	C
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 05:11	GLQ	C
Styrene	20.6	ug/L		5.0	1.2	SW846 8260B			11/20/12 05:11	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 05:11	GLQ	C
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			11/20/12 05:11	GLQ	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923007** Date Collected: 11/15/2012 10:55 Matrix: Ground Water

Sample ID: **MW-005R_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	26200	ug/L		500	115	SW846 8260B			11/20/12 05:45	GLQ	C
Total Xylenes	15000	ug/L		1500	330	SW846 8260B			11/20/12 05:45	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 05:11	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 05:11	GLQ	C
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 05:11	GLQ	C
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 05:11	GLQ	C
o-Xylene	4240	ug/L		500	165	SW846 8260B			11/20/12 05:45	GLQ	C
mp-Xylene	10800	ug/L		1000	260	SW846 8260B			11/20/12 05:45	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	78.6	%		62-133		SW846 8260B			11/20/12 05:11	GLQ	C
4-Bromofluorobenzene (S)	84	%		79-114		SW846 8260B			11/20/12 05:11	GLQ	C
Dibromofluoromethane (S)	81.3	%		78-116		SW846 8260B			11/20/12 05:11	GLQ	C
Toluene-d8 (S)	96.3	%		76-127		SW846 8260B			11/20/12 05:11	GLQ	C
1,2-Dichloroethane-d4 (S)	77.9	%		62-133		SW846 8260B			11/20/12 05:45	GLQ	C
4-Bromofluorobenzene (S)	79.1	%		79-114		SW846 8260B			11/20/12 05:45	GLQ	C
Dibromofluoromethane (S)	83.1	%		78-116		SW846 8260B			11/20/12 05:45	GLQ	C
Toluene-d8 (S)	88.7	%		76-127		SW846 8260B			11/20/12 05:45	GLQ	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	9.6	mg/L		3.3	0.29	SW846 8015C	11/19/12	BS	11/22/12 01:24	EGO	A1
Gasoline Range Organics	140000	ug/L		5000	695	SW846 8015C			11/27/12 06:22	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	113	%		90-129		SW846 8015C			11/27/12 06:22	ECR	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected in the sample. Reporting limits were adjusted accordingly. Surrogate recovery could not be evaluated as a result of the dilution.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923008** Date Collected: 11/15/2012 12:30 Matrix: Ground Water

Sample ID: **MW-006_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 02:55	GLQ	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/20/12 02:55	GLQ	C
tert-Amyl Alcohol	27.8	ug/L		10.0	6.6	SW846 8260B			11/20/12 02:55	GLQ	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 02:55	GLQ	C
Benzene	0.77J	ug/L		1.0	0.23	SW846 8260B			11/20/12 02:55	GLQ	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 02:55	GLQ	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/20/12 02:55	GLQ	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/20/12 02:55	GLQ	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/20/12 02:55	GLQ	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/20/12 02:55	GLQ	C
tert-Butyl Alcohol	21.2	ug/L		10.0	2.2	SW846 8260B			11/20/12 02:55	GLQ	C
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 02:55	GLQ	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 02:55	GLQ	C
Chlorobenzene	11.1	ug/L		1.0	0.19	SW846 8260B			11/20/12 02:55	GLQ	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 02:55	GLQ	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 02:55	GLQ	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/20/12 02:55	GLQ	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 02:55	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/20/12 02:55	GLQ	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 02:55	GLQ	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 02:55	GLQ	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 02:55	GLQ	C
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 02:55	GLQ	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 02:55	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 02:55	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/20/12 02:55	GLQ	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/20/12 02:55	GLQ	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 02:55	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 02:55	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 02:55	GLQ	C
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			11/20/12 02:55	GLQ	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 02:55	GLQ	C
Ethylbenzene	14.1	ug/L		1.0	0.34	SW846 8260B			11/20/12 02:55	GLQ	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 02:55	GLQ	C
Methyl t-Butyl Ether	2.0	ug/L		1.0	0.33	SW846 8260B			11/20/12 02:55	GLQ	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 02:55	GLQ	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 02:55	GLQ	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 02:55	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 02:55	GLQ	C
Tetrachloroethene	0.83J	ug/L		1.0	0.35	SW846 8260B			11/20/12 02:55	GLQ	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923008** Date Collected: 11/15/2012 12:30 Matrix: Ground Water

Sample ID: **MW-006_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	6.9	ug/L		1.0	0.23	SW846 8260B			11/20/12 02:55	GLQ	C
Total Xylenes	76.4	ug/L		3.0	0.66	SW846 8260B			11/20/12 02:55	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/20/12 02:55	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 02:55	GLQ	C
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 02:55	GLQ	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/20/12 02:55	GLQ	C
o-Xylene	22.1	ug/L		1.0	0.33	SW846 8260B			11/20/12 02:55	GLQ	C
mp-Xylene	54.3	ug/L		2.0	0.52	SW846 8260B			11/20/12 02:55	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	85.9	%		62-133		SW846 8260B			11/20/12 02:55	GLQ	C
4-Bromofluorobenzene (S)	82.8	%		79-114		SW846 8260B			11/20/12 02:55	GLQ	C
Dibromofluoromethane (S)	90.1	%		78-116		SW846 8260B			11/20/12 02:55	GLQ	C
Toluene-d8 (S)	89.2	%		76-127		SW846 8260B			11/20/12 02:55	GLQ	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	2.1	mg/L		0.17	0.015	SW846 8015C	11/19/12	BS	11/21/12 05:18	EGO	A1
Gasoline Range Organics	459	ug/L		100	13.9	SW846 8015C			11/27/12 03:12	ECR	F
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	41	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 05:18	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	128	%		90-129		SW846 8015C			11/27/12 03:12	ECR	F

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923009** Date Collected: 11/15/2012 13:20 Matrix: Ground Water

Sample ID: **MW-007_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		500	155	SW846 8260B			11/20/12 17:55	DRS	E
tert-Amyl methyl ether	ND	ug/L		50.0	10.0	SW846 8260B			11/20/12 17:55	DRS	E
tert-Amyl Alcohol	ND	ug/L	5	500	330	SW846 8260B			11/20/12 17:55	DRS	E
tert-Amyl Ethylether	ND	ug/L		50.0	14.5	SW846 8260B			11/20/12 17:55	DRS	E
Benzene	430	ug/L		50.0	11.5	SW846 8260B			11/20/12 17:55	DRS	E
Bromochloromethane	ND	ug/L		50.0	16.0	SW846 8260B			11/20/12 17:55	DRS	E
Bromodichloromethane	ND	ug/L		50.0	13.5	SW846 8260B			11/20/12 17:55	DRS	E
Bromoform	ND	ug/L		50.0	20.0	SW846 8260B			11/20/12 17:55	DRS	E
Bromomethane	ND	ug/L		50.0	19.5	SW846 8260B			11/20/12 17:55	DRS	E
2-Butanone	ND	ug/L		500	90.0	SW846 8260B			11/20/12 17:55	DRS	E
tert-Butyl Alcohol	ND	ug/L		500	110	SW846 8260B			11/20/12 17:55	DRS	E
Carbon Disulfide	ND	ug/L		50.0	11.5	SW846 8260B			11/20/12 17:55	DRS	E
Carbon Tetrachloride	ND	ug/L		50.0	15.5	SW846 8260B			11/20/12 17:55	DRS	E
Chlorobenzene	ND	ug/L		50.0	9.5	SW846 8260B			11/20/12 17:55	DRS	E
Chlorodibromomethane	ND	ug/L		50.0	22.5	SW846 8260B			11/20/12 17:55	DRS	E
Chloroethane	ND	ug/L		50.0	16.5	SW846 8260B			11/20/12 17:55	DRS	E
Chloroform	ND	ug/L		50.0	10.5	SW846 8260B			11/20/12 17:55	DRS	E
Chloromethane	ND	ug/L		50.0	15.5	SW846 8260B			11/20/12 17:55	DRS	E
1,2-Dibromo-3-chloropropane	ND	ug/L		350	75.0	SW846 8260B			11/20/12 17:55	DRS	E
1,2-Dibromoethane	ND	ug/L		50.0	14.0	SW846 8260B			11/20/12 17:55	DRS	E
Dichlorodifluoromethane	ND	ug/L		50.0	16.5	SW846 8260B			11/20/12 17:55	DRS	E
1,1-Dichloroethane	ND	ug/L		50.0	14.0	SW846 8260B			11/20/12 17:55	DRS	E
1,2-Dichloroethane	ND	ug/L		50.0	16.0	SW846 8260B			11/20/12 17:55	DRS	E
1,1-Dichloroethene	ND	ug/L		50.0	14.5	SW846 8260B			11/20/12 17:55	DRS	E
cis-1,2-Dichloroethene	ND	ug/L		50.0	16.0	SW846 8260B			11/20/12 17:55	DRS	E
trans-1,2-Dichloroethene	ND	ug/L		50.0	13.0	SW846 8260B			11/20/12 17:55	DRS	E
Dichlorofluoromethane	ND	ug/L		50.0	18.5	SW846 8260B			11/20/12 17:55	DRS	E
1,2-Dichloropropane	ND	ug/L		50.0	12.0	SW846 8260B			11/20/12 17:55	DRS	E
cis-1,3-Dichloropropene	ND	ug/L		50.0	15.5	SW846 8260B			11/20/12 17:55	DRS	E
trans-1,3-Dichloropropene	ND	ug/L		50.0	14.5	SW846 8260B			11/20/12 17:55	DRS	E
Diisopropyl ether	ND	ug/L		50.0	12.5	SW846 8260B			11/20/12 17:55	DRS	E
Ethyl tert-butyl ether	ND	ug/L		50.0	9.5	SW846 8260B			11/20/12 17:55	DRS	E
Ethylbenzene	421	ug/L		50.0	17.0	SW846 8260B			11/20/12 17:55	DRS	E
2-Hexanone	ND	ug/L		250	65.0	SW846 8260B			11/20/12 17:55	DRS	E
Methyl t-Butyl Ether	ND	ug/L		50.0	16.5	SW846 8260B			11/20/12 17:55	DRS	E
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		250	75.0	SW846 8260B			11/20/12 17:55	DRS	E
Methylene Chloride	ND	ug/L		50.0	22.5	SW846 8260B			11/20/12 17:55	DRS	E
Styrene	ND	ug/L		50.0	12.0	SW846 8260B			11/20/12 17:55	DRS	E
1,1,2,2-Tetrachloroethane	ND	ug/L		50.0	17.0	SW846 8260B			11/20/12 17:55	DRS	E
Tetrachloroethene	ND	ug/L		50.0	17.5	SW846 8260B			11/20/12 17:55	DRS	E

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923009** Date Collected: 11/15/2012 13:20 Matrix: Ground Water

Sample ID: **MW-007_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	3190	ug/L		50.0	11.5	SW846 8260B			11/20/12 17:55	DRS	E
Total Xylenes	1730	ug/L		150	33.0	SW846 8260B			11/20/12 17:55	DRS	E
1,1,1-Trichloroethane	ND	ug/L		50.0	11.0	SW846 8260B			11/20/12 17:55	DRS	E
1,1,2-Trichloroethane	ND	ug/L		50.0	16.5	SW846 8260B			11/20/12 17:55	DRS	E
Trichloroethene	ND	ug/L		50.0	16.5	SW846 8260B			11/20/12 17:55	DRS	E
Vinyl Chloride	ND	ug/L		50.0	15.0	SW846 8260B			11/20/12 17:55	DRS	E
o-Xylene	785	ug/L		50.0	16.5	SW846 8260B			11/20/12 17:55	DRS	E
mp-Xylene	941	ug/L		100	26.0	SW846 8260B			11/20/12 17:55	DRS	E
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	79.9	%		62-133		SW846 8260B			11/20/12 17:55	DRS	E
4-Bromofluorobenzene (S)	82.3	%		79-114		SW846 8260B			11/20/12 17:55	DRS	E
Dibromofluoromethane (S)	88.9	%		78-116		SW846 8260B			11/20/12 17:55	DRS	E
Toluene-d8 (S)	87.8	%		76-127		SW846 8260B			11/20/12 17:55	DRS	E
PETROLEUM HC's											
Diesel Range Organics C10-C28	1.3	mg/L		0.17	0.015	SW846 8015C	11/19/12	BS	11/21/12 06:21	EGO	A1
Gasoline Range Organics	14900	ug/L		5000	695	SW846 8015C			11/21/12 09:26	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	47.8	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 06:21	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	101	%		90-129		SW846 8015C			11/21/12 09:26	ECR	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923010** Date Collected: 11/16/2012 13:20 Matrix: Ground Water

Sample ID: **MW-008_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		100	31.0	SW846 8260B			11/20/12 17:21	DRS	E
tert-Amyl methyl ether	11.8	ug/L		10.0	2.0	SW846 8260B			11/20/12 17:21	DRS	E
tert-Amyl Alcohol	ND	ug/L	5	100	66.0	SW846 8260B			11/20/12 17:21	DRS	E
tert-Amyl Ethylether	ND	ug/L		10.0	2.9	SW846 8260B			11/20/12 17:21	DRS	E
Benzene	449	ug/L		10.0	2.3	SW846 8260B			11/20/12 17:21	DRS	E
Bromochloromethane	ND	ug/L		10.0	3.2	SW846 8260B			11/20/12 17:21	DRS	E
Bromodichloromethane	ND	ug/L		10.0	2.7	SW846 8260B			11/20/12 17:21	DRS	E
Bromoform	ND	ug/L		10.0	4.0	SW846 8260B			11/20/12 17:21	DRS	E
Bromomethane	ND	ug/L		10.0	3.9	SW846 8260B			11/20/12 17:21	DRS	E
2-Butanone	ND	ug/L		100	18.0	SW846 8260B			11/20/12 17:21	DRS	E
tert-Butyl Alcohol	737	ug/L		100	22.0	SW846 8260B			11/20/12 17:21	DRS	E
Carbon Disulfide	ND	ug/L		10.0	2.3	SW846 8260B			11/20/12 17:21	DRS	E
Carbon Tetrachloride	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 17:21	DRS	E
Chlorobenzene	ND	ug/L		10.0	1.9	SW846 8260B			11/20/12 17:21	DRS	E
Chlorodibromomethane	ND	ug/L		10.0	4.5	SW846 8260B			11/20/12 17:21	DRS	E
Chloroethane	ND	ug/L		10.0	3.3	SW846 8260B			11/20/12 17:21	DRS	E
Chloroform	ND	ug/L		10.0	2.1	SW846 8260B			11/20/12 17:21	DRS	E
Chloromethane	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 17:21	DRS	E
1,2-Dibromo-3-chloropropane	ND	ug/L		70.0	15.0	SW846 8260B			11/20/12 17:21	DRS	E
1,2-Dibromoethane	ND	ug/L		10.0	2.8	SW846 8260B			11/20/12 17:21	DRS	E
Dichlorodifluoromethane	ND	ug/L		10.0	3.3	SW846 8260B			11/20/12 17:21	DRS	E
1,1-Dichloroethane	ND	ug/L		10.0	2.8	SW846 8260B			11/20/12 17:21	DRS	E
1,2-Dichloroethane	ND	ug/L		10.0	3.2	SW846 8260B			11/20/12 17:21	DRS	E
1,1-Dichloroethene	ND	ug/L		10.0	2.9	SW846 8260B			11/20/12 17:21	DRS	E
cis-1,2-Dichloroethene	ND	ug/L		10.0	3.2	SW846 8260B			11/20/12 17:21	DRS	E
trans-1,2-Dichloroethene	ND	ug/L		10.0	2.6	SW846 8260B			11/20/12 17:21	DRS	E
Dichlorofluoromethane	ND	ug/L		10.0	3.7	SW846 8260B			11/20/12 17:21	DRS	E
1,2-Dichloropropane	ND	ug/L		10.0	2.4	SW846 8260B			11/20/12 17:21	DRS	E
cis-1,3-Dichloropropene	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 17:21	DRS	E
trans-1,3-Dichloropropene	ND	ug/L		10.0	2.9	SW846 8260B			11/20/12 17:21	DRS	E
Diisopropyl ether	8.6J	ug/L		10.0	2.5	SW846 8260B			11/20/12 17:21	DRS	E
Ethyl tert-butyl ether	4.1J	ug/L		10.0	1.9	SW846 8260B			11/20/12 17:21	DRS	E
Ethylbenzene	197	ug/L		10.0	3.4	SW846 8260B			11/20/12 17:21	DRS	E
2-Hexanone	ND	ug/L		50.0	13.0	SW846 8260B			11/20/12 17:21	DRS	E
Methyl t-Butyl Ether	664	ug/L		10.0	3.3	SW846 8260B			11/20/12 17:21	DRS	E
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		50.0	15.0	SW846 8260B			11/20/12 17:21	DRS	E
Methylene Chloride	ND	ug/L		10.0	4.5	SW846 8260B			11/20/12 17:21	DRS	E
Styrene	ND	ug/L		10.0	2.4	SW846 8260B			11/20/12 17:21	DRS	E
1,1,2,2-Tetrachloroethane	ND	ug/L		10.0	3.4	SW846 8260B			11/20/12 17:21	DRS	E
Tetrachloroethene	ND	ug/L		10.0	3.5	SW846 8260B			11/20/12 17:21	DRS	E

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923010** Date Collected: 11/16/2012 13:20 Matrix: Ground Water

Sample ID: **MW-008_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	20.5	ug/L		10.0	2.3	SW846 8260B			11/20/12 17:21	DRS	E
Total Xylenes	41.1	ug/L		30.0	6.6	SW846 8260B			11/20/12 17:21	DRS	E
1,1,1-Trichloroethane	ND	ug/L		10.0	2.2	SW846 8260B			11/20/12 17:21	DRS	E
1,1,2-Trichloroethane	ND	ug/L		10.0	3.3	SW846 8260B			11/20/12 17:21	DRS	E
Trichloroethene	ND	ug/L		10.0	3.3	SW846 8260B			11/20/12 17:21	DRS	E
Vinyl Chloride	ND	ug/L		10.0	3.0	SW846 8260B			11/20/12 17:21	DRS	E
o-Xylene	ND	ug/L		10.0	3.3	SW846 8260B			11/20/12 17:21	DRS	E
mp-Xylene	41.1	ug/L		20.0	5.2	SW846 8260B			11/20/12 17:21	DRS	E
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	82.1	%		62-133		SW846 8260B			11/20/12 17:21	DRS	E
4-Bromofluorobenzene (S)	81.8	%		79-114		SW846 8260B			11/20/12 17:21	DRS	E
Dibromofluoromethane (S)	87.7	%		78-116		SW846 8260B			11/20/12 17:21	DRS	E
Toluene-d8 (S)	91.4	%		76-127		SW846 8260B			11/20/12 17:21	DRS	E
PETROLEUM HC's											
Diesel Range Organics C10-C28	1.3	mg/L		0.83	0.073	SW846 8015C	11/19/12	BS	11/22/12 02:30	EGO	A1
Gasoline Range Organics	3470	ug/L		500	69.5	SW846 8015C			11/21/12 08:12	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	67.8	%		26-139		SW846 8015C	11/19/12	BS	11/22/12 02:30	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	91.6	%		90-129		SW846 8015C			11/21/12 08:12	ECR	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected in the sample. Reporting limits were adjusted accordingly.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923011** Date Collected: 11/16/2012 14:00 Matrix: Ground Water

Sample ID: **MW-008D_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 03:29	GLQ	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/20/12 03:29	GLQ	C
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			11/20/12 03:29	GLQ	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 03:29	GLQ	C
Benzene	0.43J	ug/L		1.0	0.23	SW846 8260B			11/20/12 03:29	GLQ	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 03:29	GLQ	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/20/12 03:29	GLQ	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/20/12 03:29	GLQ	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/20/12 03:29	GLQ	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/20/12 03:29	GLQ	C
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			11/20/12 03:29	GLQ	C
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 03:29	GLQ	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 03:29	GLQ	C
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 03:29	GLQ	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 03:29	GLQ	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 03:29	GLQ	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/20/12 03:29	GLQ	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 03:29	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/20/12 03:29	GLQ	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 03:29	GLQ	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 03:29	GLQ	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 03:29	GLQ	C
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 03:29	GLQ	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 03:29	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 03:29	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/20/12 03:29	GLQ	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/20/12 03:29	GLQ	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 03:29	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 03:29	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 03:29	GLQ	C
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			11/20/12 03:29	GLQ	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 03:29	GLQ	C
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 03:29	GLQ	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 03:29	GLQ	C
Methyl t-Butyl Ether	0.75J	ug/L		1.0	0.33	SW846 8260B			11/20/12 03:29	GLQ	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 03:29	GLQ	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 03:29	GLQ	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 03:29	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 03:29	GLQ	C
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/20/12 03:29	GLQ	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923011** Date Collected: 11/16/2012 14:00 Matrix: Ground Water

Sample ID: **MW-008D_20121016_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	0.87J	ug/L		1.0	0.23	SW846 8260B			11/20/12 03:29	GLQ	C
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			11/20/12 03:29	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/20/12 03:29	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 03:29	GLQ	C
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 03:29	GLQ	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/20/12 03:29	GLQ	C
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 03:29	GLQ	C
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			11/20/12 03:29	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	84.8	%		62-133		SW846 8260B			11/20/12 03:29	GLQ	C
4-Bromofluorobenzene (S)	82	%		79-114		SW846 8260B			11/20/12 03:29	GLQ	C
Dibromofluoromethane (S)	87.3	%		78-116		SW846 8260B			11/20/12 03:29	GLQ	C
Toluene-d8 (S)	90.8	%		76-127		SW846 8260B			11/20/12 03:29	GLQ	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	0.28	mg/L		0.16	0.014	SW846 8015C	11/19/12	BS	11/21/12 09:23	EGO	A1
Gasoline Range Organics	ND	ug/L		100	13.9	SW846 8015C			11/21/12 04:27	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	55.2	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 09:23	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	114	%		90-129		SW846 8015C			11/21/12 04:27	ECR	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923012** Date Collected: 11/16/2012 00:00 Matrix: Ground Water

Sample ID: **DUP-001_20121016_FD** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			11/20/12 16:48	DRS	E
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			11/20/12 16:48	DRS	E
tert-Amyl Alcohol	ND	ug/L	5	50.0	33.0	SW846 8260B			11/20/12 16:48	DRS	E
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 16:48	DRS	E
Benzene	74.9	ug/L		5.0	1.2	SW846 8260B			11/20/12 16:48	DRS	E
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 16:48	DRS	E
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 16:48	DRS	E
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 16:48	DRS	E
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			11/20/12 16:48	DRS	E
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			11/20/12 16:48	DRS	E
tert-Butyl Alcohol	1320	ug/L		50.0	11.0	SW846 8260B			11/20/12 16:48	DRS	E
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 16:48	DRS	E
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 16:48	DRS	E
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			11/20/12 16:48	DRS	E
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 16:48	DRS	E
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 16:48	DRS	E
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 16:48	DRS	E
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			11/20/12 16:48	DRS	E
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 16:48	DRS	E
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			11/20/12 16:48	DRS	E
1,2-Dichloroethane	118	ug/L		5.0	1.6	SW846 8260B			11/20/12 16:48	DRS	E
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 16:48	DRS	E
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 16:48	DRS	E
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 16:48	DRS	E
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			11/20/12 16:48	DRS	E
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 16:48	DRS	E
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			11/20/12 16:48	DRS	E
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 16:48	DRS	E
Diisopropyl ether	26.1	ug/L		5.0	1.3	SW846 8260B			11/20/12 16:48	DRS	E
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			11/20/12 16:48	DRS	E
Ethylbenzene	8.1	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			11/20/12 16:48	DRS	E
Methyl t-Butyl Ether	102	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			11/20/12 16:48	DRS	E
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			11/20/12 16:48	DRS	E
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			11/20/12 16:48	DRS	E
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			11/20/12 16:48	DRS	E

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923012** Date Collected: 11/16/2012 00:00 Matrix: Ground Water

Sample ID: **DUP-001_20121016_FD** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	60.5	ug/L		5.0	1.2	SW846 8260B			11/20/12 16:48	DRS	E
Total Xylenes	52.6	ug/L		15.0	3.3	SW846 8260B			11/20/12 16:48	DRS	E
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			11/20/12 16:48	DRS	E
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 16:48	DRS	E
o-Xylene	15.3	ug/L		5.0	1.7	SW846 8260B			11/20/12 16:48	DRS	E
mp-Xylene	37.4	ug/L		10.0	2.6	SW846 8260B			11/20/12 16:48	DRS	E
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	87.3	%		62-133		SW846 8260B			11/20/12 16:48	DRS	E
4-Bromofluorobenzene (S)	85.1	%		79-114		SW846 8260B			11/20/12 16:48	DRS	E
Dibromofluoromethane (S)	88.3	%		78-116		SW846 8260B			11/20/12 16:48	DRS	E
Toluene-d8 (S)	89.9	%		76-127		SW846 8260B			11/20/12 16:48	DRS	E
PETROLEUM HC's											
Diesel Range Organics C10-C28	0.24	mg/L		0.16	0.014	SW846 8015C	11/19/12	BS	11/21/12 10:27	EGO	A1
Gasoline Range Organics	1080	ug/L		100	13.9	SW846 8015C			11/21/12 06:55	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	27.1	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 10:27	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	97.7	%		90-129		SW846 8015C			11/21/12 06:55	ECR	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923013** Date Collected: 11/16/2012 12:12 Matrix: Ground Water

Sample ID: **FIELD BLANK-001_20121016_FB** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 00:41	GLQ	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/20/12 00:41	GLQ	C
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			11/20/12 00:41	GLQ	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 00:41	GLQ	C
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 00:41	GLQ	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 00:41	GLQ	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/20/12 00:41	GLQ	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/20/12 00:41	GLQ	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/20/12 00:41	GLQ	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/20/12 00:41	GLQ	C
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			11/20/12 00:41	GLQ	C
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 00:41	GLQ	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 00:41	GLQ	C
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 00:41	GLQ	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 00:41	GLQ	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 00:41	GLQ	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/20/12 00:41	GLQ	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 00:41	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/20/12 00:41	GLQ	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 00:41	GLQ	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 00:41	GLQ	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 00:41	GLQ	C
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 00:41	GLQ	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 00:41	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 00:41	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/20/12 00:41	GLQ	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/20/12 00:41	GLQ	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 00:41	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 00:41	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 00:41	GLQ	C
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			11/20/12 00:41	GLQ	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 00:41	GLQ	C
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 00:41	GLQ	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 00:41	GLQ	C
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 00:41	GLQ	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 00:41	GLQ	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 00:41	GLQ	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 00:41	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 00:41	GLQ	C
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/20/12 00:41	GLQ	C

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923013** Date Collected: 11/16/2012 12:12 Matrix: Ground Water

Sample ID: **FIELD BLANK-001_20121016_FB** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 00:41	GLQ	C
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			11/20/12 00:41	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/20/12 00:41	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 00:41	GLQ	C
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 00:41	GLQ	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/20/12 00:41	GLQ	C
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 00:41	GLQ	C
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			11/20/12 00:41	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	85.5	%		62-133		SW846 8260B			11/20/12 00:41	GLQ	C
4-Bromofluorobenzene (S)	84.7	%		79-114		SW846 8260B			11/20/12 00:41	GLQ	C
Dibromofluoromethane (S)	89.4	%		78-116		SW846 8260B			11/20/12 00:41	GLQ	C
Toluene-d8 (S)	88.2	%		76-127		SW846 8260B			11/20/12 00:41	GLQ	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	ND	mg/L		0.16	0.014	SW846 8015C	11/19/12	BS	11/21/12 11:11	EGO	A1
Gasoline Range Organics	ND	ug/L		100	13.9	SW846 8015C			11/21/12 03:11	ECR	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	74.1	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 11:11	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	117	%		90-129		SW846 8015C			11/21/12 03:11	ECR	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923014** Date Collected: 11/16/2012 12:00 Matrix: Ground Water

Sample ID: **FIELD BLANK-002_20121016_FB** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 01:15	GLQ	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/20/12 01:15	GLQ	C
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			11/20/12 01:15	GLQ	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 01:15	GLQ	C
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 01:15	GLQ	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 01:15	GLQ	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/20/12 01:15	GLQ	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/20/12 01:15	GLQ	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/20/12 01:15	GLQ	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/20/12 01:15	GLQ	C
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			11/20/12 01:15	GLQ	C
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 01:15	GLQ	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 01:15	GLQ	C
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 01:15	GLQ	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 01:15	GLQ	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 01:15	GLQ	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/20/12 01:15	GLQ	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 01:15	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/20/12 01:15	GLQ	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 01:15	GLQ	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 01:15	GLQ	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 01:15	GLQ	C
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 01:15	GLQ	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 01:15	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 01:15	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/20/12 01:15	GLQ	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/20/12 01:15	GLQ	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 01:15	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 01:15	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 01:15	GLQ	C
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			11/20/12 01:15	GLQ	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 01:15	GLQ	C
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 01:15	GLQ	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 01:15	GLQ	C
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 01:15	GLQ	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 01:15	GLQ	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 01:15	GLQ	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 01:15	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 01:15	GLQ	C
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/20/12 01:15	GLQ	C

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923014** Date Collected: 11/16/2012 12:00 Matrix: Ground Water

Sample ID: **FIELD BLANK-002_20121016_FB** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 01:15	GLQ	C
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			11/20/12 01:15	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/20/12 01:15	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 01:15	GLQ	C
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 01:15	GLQ	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/20/12 01:15	GLQ	C
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 01:15	GLQ	C
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			11/20/12 01:15	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	87.2	%		62-133		SW846 8260B			11/20/12 01:15	GLQ	C
4-Bromofluorobenzene (S)	87.7	%		79-114		SW846 8260B			11/20/12 01:15	GLQ	C
Dibromofluoromethane (S)	89.9	%		78-116		SW846 8260B			11/20/12 01:15	GLQ	C
Toluene-d8 (S)	90.1	%		76-127		SW846 8260B			11/20/12 01:15	GLQ	C
PETROLEUM HC's											
Diesel Range Organics C10-C28	0.016J	mg/L		0.16	0.014	SW846 8015C	11/19/12	BS	11/21/12 11:41	EGO	A1
Gasoline Range Organics	ND	ug/L		100	13.9	SW846 8015C			11/27/12 01:20	ECR	D
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	73.4	%		26-139		SW846 8015C	11/19/12	BS	11/21/12 11:41	EGO	A1
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	126	%		90-129		SW846 8015C			11/27/12 01:20	ECR	D

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923015** Date Collected: 11/15/2012 00:00 Matrix: Ground Water

Sample ID: **TRIP BLANK-001_20121016_TB** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			11/20/12 11:44	DRS	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			11/20/12 11:44	DRS	A
tert-Amyl Alcohol	ND	ug/L	5	10.0	6.6	SW846 8260B			11/20/12 11:44	DRS	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 11:44	DRS	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 11:44	DRS	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 11:44	DRS	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			11/20/12 11:44	DRS	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			11/20/12 11:44	DRS	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			11/20/12 11:44	DRS	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			11/20/12 11:44	DRS	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			11/20/12 11:44	DRS	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			11/20/12 11:44	DRS	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 11:44	DRS	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 11:44	DRS	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 11:44	DRS	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 11:44	DRS	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			11/20/12 11:44	DRS	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 11:44	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			11/20/12 11:44	DRS	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 11:44	DRS	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 11:44	DRS	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			11/20/12 11:44	DRS	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 11:44	DRS	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 11:44	DRS	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			11/20/12 11:44	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			11/20/12 11:44	DRS	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			11/20/12 11:44	DRS	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 11:44	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			11/20/12 11:44	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			11/20/12 11:44	DRS	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			11/20/12 11:44	DRS	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			11/20/12 11:44	DRS	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 11:44	DRS	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			11/20/12 11:44	DRS	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 11:44	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			11/20/12 11:44	DRS	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			11/20/12 11:44	DRS	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			11/20/12 11:44	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			11/20/12 11:44	DRS	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			11/20/12 11:44	DRS	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9998923 Drinking Water (11/16/12)

Lab ID: **9998923015** Date Collected: 11/15/2012 00:00 Matrix: Ground Water

Sample ID: **TRIP BLANK-001_20121016_TB** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	0.42J	ug/L		1.0	0.23	SW846 8260B			11/20/12 11:44	DRS	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			11/20/12 11:44	DRS	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			11/20/12 11:44	DRS	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 11:44	DRS	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 11:44	DRS	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			11/20/12 11:44	DRS	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			11/20/12 11:44	DRS	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			11/20/12 11:44	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.8	%		62-133		SW846 8260B			11/20/12 11:44	DRS	A
4-Bromofluorobenzene (S)	83.6	%		79-114		SW846 8260B			11/20/12 11:44	DRS	A
Dibromofluoromethane (S)	88.3	%		78-116		SW846 8260B			11/20/12 11:44	DRS	A
Toluene-d8 (S)	89.8	%		76-127		SW846 8260B			11/20/12 11:44	DRS	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9998923 Drinking Water (11/16/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as -214 and the control limits were 70 to 130.

[2] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as -195 and the control limits were 70 to 130.

[3] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Butyl Alcohol. The % Recovery was reported as -105 and the control limits were 17 to 168.

[4] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte tert-Butyl Alcohol. The % Recovery was reported as -92.5 and the control limits were 17 to 168.

[5] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as 21.9 and the control limits were 70 to 130.

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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2 Courier: Tracking #:

9998923

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel, Brenda Kellogg Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (if different than Report to): Same PO#: 7562
Project Name#: Calvert City/5977 ALSI Quote #:
TAT: Normal-Standard TAT is ~~10-12 business days~~ 5-day Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:
Email? X .Y bmanuel@repsg.com, jmanuel@repsg.com
Fax? .Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	**Matrix	***Container Type	***Container Size	*** Preservative	ANALYSES/METHOD REQUESTED	Enter Number of Containers Per Analysis
1 MW-001		11/5	1326	G	GW	AG	Vm		TPH-GRO	2
2 MW-001R		11/5	1235	G	GW	1L	Hcl		TPH-DRO	2
3 MW-002		11/6	945	G	GW	1L	Hcl		VOC's by 8260B including Tert Oxygenates	2
4 MW-003		11/5	1140	G	GW	1L	Hcl			2
5 MW-003R		11/5	1040	G	GW	1L	Hcl			2
6 MW-005		11/5	1020	G	GW	1L	Hcl			2
7 MW-005R		11/5	1055	G	GW	1L	Hcl			2
8 MW-006		11/5	1230	G	GW	1L	Hcl			2

SAMPLED BY (Please Print): M. Ramoni LOGGED BY(signature): DATE 11-7-12 TIME 0800
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Mike Ramoni	11-6	1605	2 Ron Kenny	11-6	1605
3 Ron K	11/6	1900	4 [signature]	11/6	1900
5 [signature]	11/6	2245	6 [signature]	11-7-12	2245
7			8		
9			10		

Data Deliverables: Standard, CLP-like, NJ-Reduced, NJ-Full, If yes, format type: Other, EDDs Required?
SDWA Forms?: yes, yes, yes, yes
State Samples Collected in?: MD, NJ, NY, PA
Equis
Excel PDF

ALSI FIELD SERVICES: Pickup, Labor, Composite Sampling, Rental Equipment, Other:

Custody seals Present?	Y	N	
(if present) Seals Intact?	Y	N	
Received on Ice?	Y	N	
COC/Labels complete/accurate?	Y	N	
Headspace/Volatiles?	Y	N	
Correct preservation?	Y	N	
Correct sample volume?	Y	N	
Correct containers?	Y	N	
Container in good condition?	Y	N	

Circle appropriate Y or N.

Notes:
No. of Coolers:
Cooler Temp:
Therm. ID#: 1
Performed by: MJ INITIAL HERE

DOD Criteria Required?

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OH=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY Rev 6/07

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2
Courier:
Tracking #:
9998epc#3

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel; Brenda Kellogg
Phone: (215)729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (if different than Report to): Same
PO#: 7562
Project Name/#: Calvert Citgo/15977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is ~~10-12 business days.~~ 5 day
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] Y bmacphail@repsg.com/jmanuel@repsg.com
Fax? [ ] Y No.:

***Container Type: Voa | AG | Voa
***Container Size: 40mL | 1L | 40mL
***Preservative: HCL | H_2SO_4 | HCL

ANALYSES/METHOD REQUESTED: TPH-GRO | TPH-DRO | VOC's By 8260B Including Fuel Oxygenates

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TPH-GRO	TPH-DRO	VOC's By 8260B Including Fuel Oxygenates
1 MW-007		11/15	1320	G	GW	2	2	2
2 MW-008		11/16	1320	G	GW	2	2	2
3 MW-008D		11/16	1400	G	GW	2	2	2
4 Dup-001		11/15	—	G	GW	2	2	2
5 Field Blank-001		11/15	1212	G	DI	2	2	2
6 Field Blank-002		11/16	1200	G	DI	2	2	2
7 Trip Blank-001		11/15	—	G	DI	—	—	2
8								

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by:
Cooler Temp:
Therm. ID: 1745
No. of Coolers:
Notes:

	Y	N
Correct containers?		
Correct sample volume?	Y	
Correct preservation?	Y	
Headspace/Volatiles?	Y	
Custody seals Present?		N
(if present) Seals intact?		
Received on ice?	Y	
COC/Labels complete/accurate?	Y	
Container in good condition?	Y	

Circle appropriate Y or N.

SAMPLED BY (Please Print): M. Ramoni
LOGGED BY (signature): [signature] DATE 11-17-12 TIME 1010
REVIEWED BY (signature): DATE TIME

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Mike Cominski	11-16	1605	2	[signature]	11-16	1605
3	[signature]	11-16	1900	4	[signature]	11-16	1900
5	[signature]	11/16	2245	6	[signature]	11-16-12	2245
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ]
EDDs Required? [X] If yes, format type: EQUIS
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
Enter PWSID No
DOD Criteria Required?

ALSI FIELD SERVICES
[✓] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 6/07

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

March 14, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1016004**
Purchase Order:	**7900**	Workorder ID:	**Groundwater (03/08/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, March 08, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 1016004 Groundwater (03/08/13) Discard Date: 03/28/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1016004001	MW-007_20130307_N	Ground Water	3/7/13 14:45	3/8/13 19:52	Customer
1016004002	MW-002_20130307_N	Ground Water	3/7/13 14:30	3/8/13 19:52	Customer
1016004003	MW-006_20130307_N	Ground Water	3/7/13 13:30	3/8/13 19:52	Customer
1016004004	MW-001_20130307_N	Ground Water	3/7/13 12:10	3/8/13 19:52	Customer
1016004005	MW-001R_20130307_N	Ground Water	3/7/13 11:30	3/8/13 19:52	Customer
1016004006	MW-008D_20130307_N	Ground Water	3/7/13 15:15	3/8/13 19:52	Customer
1016004007	MW-005_20130307_N	Ground Water	3/7/13 15:35	3/8/13 19:52	Customer
1016004008	MW-005R_20130308_N	Ground Water	3/8/13 12:25	3/8/13 19:52	Customer
1016004009	MW-008_20130308_N	Ground Water	3/8/13 11:20	3/8/13 19:52	Customer
1016004010	MP-001_20130308_N	Ground Water	3/8/13 11:50	3/8/13 19:52	Customer
1016004011	MP-002_20130308_N	Ground Water	3/8/13 13:00	3/8/13 19:52	Customer
1016004012	MW-003_20130308_N	Ground Water	3/8/13 12:50	3/8/13 19:52	Customer
1016004013	MW-003R_20130308_N	Ground Water	3/8/13 12:00	3/8/13 19:52	Customer
1016004014	DUP-001_20130307_FD	Ground Water	3/7/13 00:00	3/8/13 19:52	Customer
1016004015	Field Blank-001_20130307_FB	Ground Water	3/7/13 12:12	3/8/13 19:52	Customer
1016004016	Field Blank-002_20130308_FB	Ground Water	3/8/13 12:15	3/8/13 19:52	Customer
1016004017	Trip Blank-001_20130307_TB	Ground Water	3/7/13 00:00	3/8/13 19:52	Customer

Workorder Comments:

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SAMPLE SUMMARY

Workorder: 1016004 Groundwater (03/08/13) Discard Date: 03/28/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004001** Date Collected: 3/7/2013 14:45 Matrix: Ground Water

Sample ID: **MW-007_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/11/13 17:31	DRS	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/11/13 17:31	DRS	A
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			3/11/13 17:31	DRS	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 17:31	DRS	A
Benzene	64.9	ug/L		5.0	1.2	SW846 8260B			3/11/13 17:31	DRS	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 17:31	DRS	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/11/13 17:31	DRS	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/11/13 17:31	DRS	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/11/13 17:31	DRS	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			3/11/13 17:31	DRS	A
tert-Butyl Alcohol	ND	ug/L		50.0	11.0	SW846 8260B			3/11/13 17:31	DRS	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/11/13 17:31	DRS	A
Carbon Tetrachloride	ND	ug/L	1	5.0	1.6	SW846 8260B			3/11/13 17:31	DRS	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/11/13 17:31	DRS	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/11/13 17:31	DRS	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/11/13 17:31	DRS	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 17:31	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/11/13 17:31	DRS	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/11/13 17:31	DRS	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/11/13 17:31	DRS	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 17:31	DRS	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 17:31	DRS	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 17:31	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/11/13 17:31	DRS	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/11/13 17:31	DRS	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/11/13 17:31	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 17:31	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 17:31	DRS	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			3/11/13 17:31	DRS	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			3/11/13 17:31	DRS	A
Ethylbenzene	211	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			3/11/13 17:31	DRS	A
Methyl t-Butyl Ether	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/11/13 17:31	DRS	A
Methylene Chloride	3.8J	ug/L	2	5.0	2.3	SW846 8260B			3/11/13 17:31	DRS	A
Styrene	1.7J	ug/L		5.0	1.2	SW846 8260B			3/11/13 17:31	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/11/13 17:31	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004001** Date Collected: 3/7/2013 14:45 Matrix: Ground Water

Sample ID: **MW-007_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	423	ug/L		5.0	1.2	SW846 8260B			3/11/13 17:31	DRS	A
Total Xylenes	1080	ug/L		15.0	3.3	SW846 8260B			3/11/13 17:31	DRS	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/11/13 17:31	DRS	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 17:31	DRS	A
o-Xylene	545	ug/L		5.0	1.7	SW846 8260B			3/11/13 17:31	DRS	A
mp-Xylene	536	ug/L		10.0	2.6	SW846 8260B			3/11/13 17:31	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	90.4	%		62-133		SW846 8260B			3/11/13 17:31	DRS	A
4-Bromofluorobenzene (S)	89.4	%		79-114		SW846 8260B			3/11/13 17:31	DRS	A
Dibromofluoromethane (S)	88.3	%		78-116		SW846 8260B			3/11/13 17:31	DRS	A
Toluene-d8 (S)	104	%		76-127		SW846 8260B			3/11/13 17:31	DRS	A

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004002** Date Collected: 3/7/2013 14:30 Matrix: Ground Water

Sample ID: **MW-002_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/11/13 18:38	DRS	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/11/13 18:38	DRS	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			3/11/13 18:38	DRS	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/11/13 18:38	DRS	A
Benzene	42.4	ug/L	3	1.0	0.23	SW846 8260B			3/11/13 18:38	DRS	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/11/13 18:38	DRS	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/11/13 18:38	DRS	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/11/13 18:38	DRS	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/11/13 18:38	DRS	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			3/11/13 18:38	DRS	A
tert-Butyl Alcohol	24.6	ug/L	4	10.0	2.2	SW846 8260B			3/11/13 18:38	DRS	A
Carbon Disulfide	ND	ug/L	5,6	1.0	0.23	SW846 8260B			3/11/13 18:38	DRS	A
Carbon Tetrachloride	ND	ug/L	1,7,8	1.0	0.31	SW846 8260B			3/11/13 18:38	DRS	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/11/13 18:38	DRS	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/11/13 18:38	DRS	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 18:38	DRS	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/11/13 18:38	DRS	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			3/11/13 18:38	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/11/13 18:38	DRS	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/11/13 18:38	DRS	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 18:38	DRS	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/11/13 18:38	DRS	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/11/13 18:38	DRS	A
1,1-Dichloroethene	ND	ug/L	10,9	1.0	0.29	SW846 8260B			3/11/13 18:38	DRS	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/11/13 18:38	DRS	A
trans-1,2-Dichloroethene	ND	ug/L	11	1.0	0.26	SW846 8260B			3/11/13 18:38	DRS	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/11/13 18:38	DRS	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/11/13 18:38	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/11/13 18:38	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/11/13 18:38	DRS	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			3/11/13 18:38	DRS	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/11/13 18:38	DRS	A
Ethylbenzene	0.47J	ug/L		1.0	0.34	SW846 8260B			3/11/13 18:38	DRS	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			3/11/13 18:38	DRS	A
Methyl t-Butyl Ether	18.8	ug/L	12,13	1.0	0.33	SW846 8260B			3/11/13 18:38	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 18:38	DRS	A
Methylene Chloride	ND	ug/L	14	1.0	0.45	SW846 8260B			3/11/13 18:38	DRS	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/11/13 18:38	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/11/13 18:38	DRS	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/11/13 18:38	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004002** Date Collected: 3/7/2013 14:30 Matrix: Ground Water

Sample ID: **MW-002_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			3/11/13 18:38	DRS	A
Total Xylenes	2.3J	ug/L		3.0	0.66	SW846 8260B			3/11/13 18:38	DRS	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/11/13 18:38	DRS	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 18:38	DRS	A
Trichloroethene	1.3	ug/L		1.0	0.33	SW846 8260B			3/11/13 18:38	DRS	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/11/13 18:38	DRS	A
o-Xylene	1.2	ug/L		1.0	0.33	SW846 8260B			3/11/13 18:38	DRS	A
mp-Xylene	1.1J	ug/L		2.0	0.52	SW846 8260B			3/11/13 18:38	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	88.5	%		62-133		SW846 8260B			3/11/13 18:38	DRS	A
4-Bromofluorobenzene (S)	87.6	%		79-114		SW846 8260B			3/11/13 18:38	DRS	A
Dibromofluoromethane (S)	86.8	%		78-116		SW846 8260B			3/11/13 18:38	DRS	A
Toluene-d8 (S)	105	%		76-127		SW846 8260B			3/11/13 18:38	DRS	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004003** Date Collected: 3/7/2013 13:30 Matrix: Ground Water

Sample ID: **MW-006_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/11/13 19:10	DRS	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/11/13 19:10	DRS	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			3/11/13 19:10	DRS	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/11/13 19:10	DRS	A
Benzene	23.9	ug/L		1.0	0.23	SW846 8260B			3/11/13 19:10	DRS	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/11/13 19:10	DRS	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/11/13 19:10	DRS	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/11/13 19:10	DRS	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/11/13 19:10	DRS	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			3/11/13 19:10	DRS	A
tert-Butyl Alcohol	14.0	ug/L		10.0	2.2	SW846 8260B			3/11/13 19:10	DRS	A
Carbon Disulfide	0.60J	ug/L	15	1.0	0.23	SW846 8260B			3/11/13 19:10	DRS	A
Carbon Tetrachloride	ND	ug/L	1	1.0	0.31	SW846 8260B			3/11/13 19:10	DRS	A
Chlorobenzene	6.4	ug/L		1.0	0.19	SW846 8260B			3/11/13 19:10	DRS	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/11/13 19:10	DRS	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 19:10	DRS	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/11/13 19:10	DRS	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			3/11/13 19:10	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/11/13 19:10	DRS	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/11/13 19:10	DRS	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 19:10	DRS	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/11/13 19:10	DRS	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/11/13 19:10	DRS	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/11/13 19:10	DRS	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/11/13 19:10	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/11/13 19:10	DRS	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/11/13 19:10	DRS	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/11/13 19:10	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/11/13 19:10	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/11/13 19:10	DRS	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			3/11/13 19:10	DRS	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/11/13 19:10	DRS	A
Ethylbenzene	6.6	ug/L		1.0	0.34	SW846 8260B			3/11/13 19:10	DRS	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			3/11/13 19:10	DRS	A
Methyl t-Butyl Ether	1.5	ug/L		1.0	0.33	SW846 8260B			3/11/13 19:10	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 19:10	DRS	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/11/13 19:10	DRS	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/11/13 19:10	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/11/13 19:10	DRS	A
Tetrachloroethene	0.56J	ug/L		1.0	0.35	SW846 8260B			3/11/13 19:10	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004003** Date Collected: 3/7/2013 13:30 Matrix: Ground Water

Sample ID: **MW-006_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	3.0	ug/L		1.0	0.23	SW846 8260B			3/11/13 19:10	DRS	A
Total Xylenes	16.0	ug/L		3.0	0.66	SW846 8260B			3/11/13 19:10	DRS	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/11/13 19:10	DRS	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 19:10	DRS	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/11/13 19:10	DRS	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/11/13 19:10	DRS	A
o-Xylene	1.0	ug/L		1.0	0.33	SW846 8260B			3/11/13 19:10	DRS	A
mp-Xylene	14.9	ug/L		2.0	0.52	SW846 8260B			3/11/13 19:10	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.9	%		62-133		SW846 8260B			3/11/13 19:10	DRS	A
4-Bromofluorobenzene (S)	87.7	%		79-114		SW846 8260B			3/11/13 19:10	DRS	A
Dibromofluoromethane (S)	88.6	%		78-116		SW846 8260B			3/11/13 19:10	DRS	A
Toluene-d8 (S)	104	%		76-127		SW846 8260B			3/11/13 19:10	DRS	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004004** Date Collected: 3/7/2013 12:10 Matrix: Ground Water

Sample ID: **MW-001_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/11/13 19:43	DRS	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/11/13 19:43	DRS	A
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			3/11/13 19:43	DRS	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 19:43	DRS	A
Benzene	9640	ug/L		50.0	11.5	SW846 8260B			3/11/13 20:16	DRS	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 19:43	DRS	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/11/13 19:43	DRS	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/11/13 19:43	DRS	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/11/13 19:43	DRS	A
2-Butanone	18.9J	ug/L		50.0	9.0	SW846 8260B			3/11/13 19:43	DRS	A
tert-Butyl Alcohol	611	ug/L		50.0	11.0	SW846 8260B			3/11/13 19:43	DRS	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/11/13 19:43	DRS	A
Carbon Tetrachloride	ND	ug/L	1	5.0	1.6	SW846 8260B			3/11/13 19:43	DRS	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/11/13 19:43	DRS	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/11/13 19:43	DRS	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/11/13 19:43	DRS	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 19:43	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/11/13 19:43	DRS	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/11/13 19:43	DRS	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/11/13 19:43	DRS	A
1,2-Dichloroethane	3.9J	ug/L		5.0	1.6	SW846 8260B			3/11/13 19:43	DRS	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 19:43	DRS	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 19:43	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/11/13 19:43	DRS	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/11/13 19:43	DRS	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/11/13 19:43	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/11/13 19:43	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 19:43	DRS	A
Diisopropyl ether	19.2	ug/L		5.0	1.3	SW846 8260B			3/11/13 19:43	DRS	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			3/11/13 19:43	DRS	A
Ethylbenzene	872	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			3/11/13 19:43	DRS	A
Methyl t-Butyl Ether	23.7	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/11/13 19:43	DRS	A
Methylene Chloride	4.5J	ug/L	2	5.0	2.3	SW846 8260B			3/11/13 19:43	DRS	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			3/11/13 19:43	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/11/13 19:43	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004004** Date Collected: 3/7/2013 12:10 Matrix: Ground Water

Sample ID: **MW-001_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	385	ug/L		5.0	1.2	SW846 8260B			3/11/13 19:43	DRS	A
Total Xylenes	1530	ug/L		15.0	3.3	SW846 8260B			3/11/13 19:43	DRS	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/11/13 19:43	DRS	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/11/13 19:43	DRS	A
o-Xylene	45.1	ug/L		5.0	1.7	SW846 8260B			3/11/13 19:43	DRS	A
mp-Xylene	1480	ug/L		10.0	2.6	SW846 8260B			3/11/13 19:43	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	86.2	%		62-133		SW846 8260B			3/11/13 19:43	DRS	A
4-Bromofluorobenzene (S)	85.5	%		79-114		SW846 8260B			3/11/13 19:43	DRS	A
Dibromofluoromethane (S)	83.4	%		78-116		SW846 8260B			3/11/13 19:43	DRS	A
Toluene-d8 (S)	104	%		76-127		SW846 8260B			3/11/13 19:43	DRS	A
1,2-Dichloroethane-d4 (S)	86.5	%		62-133		SW846 8260B			3/11/13 20:16	DRS	A
4-Bromofluorobenzene (S)	88.2	%		79-114		SW846 8260B			3/11/13 20:16	DRS	A
Dibromofluoromethane (S)	84.3	%		78-116		SW846 8260B			3/11/13 20:16	DRS	A
Toluene-d8 (S)	106	%		76-127		SW846 8260B			3/11/13 20:16	DRS	A

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004005** Date Collected: 3/7/2013 11:30 Matrix: Ground Water

Sample ID: **MW-001R_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/14/13 04:02	GLQ	C
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/14/13 04:02	GLQ	C
tert-Amyl Alcohol	223	ug/L		50.0	33.0	SW846 8260B			3/14/13 04:02	GLQ	C
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 04:02	GLQ	C
Benzene	89.3	ug/L		5.0	1.2	SW846 8260B			3/14/13 04:02	GLQ	C
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 04:02	GLQ	C
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/14/13 04:02	GLQ	C
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/14/13 04:02	GLQ	C
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/14/13 04:02	GLQ	C
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			3/14/13 04:02	GLQ	C
tert-Butyl Alcohol	1640	ug/L		50.0	11.0	SW846 8260B			3/14/13 04:02	GLQ	C
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 04:02	GLQ	C
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 04:02	GLQ	C
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/14/13 04:02	GLQ	C
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/14/13 04:02	GLQ	C
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/14/13 04:02	GLQ	C
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 04:02	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/14/13 04:02	GLQ	C
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/14/13 04:02	GLQ	C
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/14/13 04:02	GLQ	C
1,2-Dichloroethane	141	ug/L		5.0	1.6	SW846 8260B			3/14/13 04:02	GLQ	C
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 04:02	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 04:02	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/14/13 04:02	GLQ	C
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/14/13 04:02	GLQ	C
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 04:02	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 04:02	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 04:02	GLQ	C
Diisopropyl ether	31.9	ug/L		5.0	1.3	SW846 8260B			3/14/13 04:02	GLQ	C
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			3/14/13 04:02	GLQ	C
Ethylbenzene	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			3/14/13 04:02	GLQ	C
Methyl t-Butyl Ether	156	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/14/13 04:02	GLQ	C
Methylene Chloride	4.3J	ug/L	16	5.0	2.3	SW846 8260B			3/14/13 04:02	GLQ	C
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 04:02	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/14/13 04:02	GLQ	C

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004005** Date Collected: 3/7/2013 11:30 Matrix: Ground Water

Sample ID: **MW-001R_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 04:02	GLQ	C
Total Xylenes	ND	ug/L		15.0	3.3	SW846 8260B			3/14/13 04:02	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/14/13 04:02	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 04:02	GLQ	C
o-Xylene	2.2J	ug/L		5.0	1.7	SW846 8260B			3/14/13 04:02	GLQ	C
mp-Xylene	ND	ug/L		10.0	2.6	SW846 8260B			3/14/13 04:02	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.5	%		62-133		SW846 8260B			3/14/13 04:02	GLQ	C
4-Bromofluorobenzene (S)	79.8	%		79-114		SW846 8260B			3/14/13 04:02	GLQ	C
Dibromofluoromethane (S)	87.9	%		78-116		SW846 8260B			3/14/13 04:02	GLQ	C
Toluene-d8 (S)	91.1	%		76-127		SW846 8260B			3/14/13 04:02	GLQ	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004006** Date Collected: 3/7/2013 15:15 Matrix: Ground Water

Sample ID: **MW-008D_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 06:34	GLQ	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/12/13 06:34	GLQ	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			3/12/13 06:34	GLQ	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 06:34	GLQ	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 06:34	GLQ	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 06:34	GLQ	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/12/13 06:34	GLQ	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/12/13 06:34	GLQ	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/12/13 06:34	GLQ	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			3/12/13 06:34	GLQ	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			3/12/13 06:34	GLQ	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 06:34	GLQ	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 06:34	GLQ	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 06:34	GLQ	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 06:34	GLQ	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 06:34	GLQ	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/12/13 06:34	GLQ	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 06:34	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/12/13 06:34	GLQ	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 06:34	GLQ	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 06:34	GLQ	A
1,1-Dichloroethane	0.29J	ug/L		1.0	0.28	SW846 8260B			3/12/13 06:34	GLQ	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 06:34	GLQ	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 06:34	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 06:34	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/12/13 06:34	GLQ	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/12/13 06:34	GLQ	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 06:34	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 06:34	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 06:34	GLQ	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			3/12/13 06:34	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 06:34	GLQ	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 06:34	GLQ	A
2-Hexanone	ND	ug/L	17	5.0	1.3	SW846 8260B			3/12/13 06:34	GLQ	A
Methyl t-Butyl Ether	0.55J	ug/L		1.0	0.33	SW846 8260B			3/12/13 06:34	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 06:34	GLQ	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 06:34	GLQ	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 06:34	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 06:34	GLQ	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/12/13 06:34	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004006** Date Collected: 3/7/2013 15:15 Matrix: Ground Water

Sample ID: **MW-008D_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	0.38J	ug/L		1.0	0.23	SW846 8260B			3/12/13 06:34	GLQ	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			3/12/13 06:34	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/12/13 06:34	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 06:34	GLQ	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 06:34	GLQ	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/12/13 06:34	GLQ	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 06:34	GLQ	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			3/12/13 06:34	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	103	%		62-133		SW846 8260B			3/12/13 06:34	GLQ	A
4-Bromofluorobenzene (S)	110	%		79-114		SW846 8260B			3/12/13 06:34	GLQ	A
Dibromofluoromethane (S)	86.9	%		78-116		SW846 8260B			3/12/13 06:34	GLQ	A
Toluene-d8 (S)	88.8	%		76-127		SW846 8260B			3/12/13 06:34	GLQ	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004007** Date Collected: 3/7/2013 15:35 Matrix: Ground Water

Sample ID: **MW-005_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/12/13 06:56	GLQ	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/12/13 06:56	GLQ	A
tert-Amyl Alcohol	1960	ug/L	18	50.0	33.0	SW846 8260B			3/12/13 06:56	GLQ	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 06:56	GLQ	A
Benzene	271	ug/L		5.0	1.2	SW846 8260B			3/12/13 06:56	GLQ	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 06:56	GLQ	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 06:56	GLQ	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/12/13 06:56	GLQ	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/12/13 06:56	GLQ	A
2-Butanone	36.4J	ug/L		50.0	9.0	SW846 8260B			3/12/13 06:56	GLQ	A
tert-Butyl Alcohol	373	ug/L		50.0	11.0	SW846 8260B			3/12/13 06:56	GLQ	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 06:56	GLQ	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 06:56	GLQ	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/12/13 06:56	GLQ	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/12/13 06:56	GLQ	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 06:56	GLQ	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/12/13 06:56	GLQ	A
Chloromethane	122	ug/L		5.0	1.6	SW846 8260B			3/12/13 06:56	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/12/13 06:56	GLQ	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 06:56	GLQ	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 06:56	GLQ	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 06:56	GLQ	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 06:56	GLQ	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 06:56	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 06:56	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/12/13 06:56	GLQ	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/12/13 06:56	GLQ	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 06:56	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 06:56	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 06:56	GLQ	A
Diisopropyl ether	2.6J	ug/L		5.0	1.3	SW846 8260B			3/12/13 06:56	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			3/12/13 06:56	GLQ	A
Ethylbenzene	2490	ug/L		500	170	SW846 8260B			3/14/13 04:35	GLQ	C
2-Hexanone	ND	ug/L	17	25.0	6.5	SW846 8260B			3/12/13 06:56	GLQ	A
Methyl t-Butyl Ether	15.8	ug/L		5.0	1.7	SW846 8260B			3/12/13 06:56	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/12/13 06:56	GLQ	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			3/12/13 06:56	GLQ	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 06:56	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 06:56	GLQ	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/12/13 06:56	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004007** Date Collected: 3/7/2013 15:35 Matrix: Ground Water

Sample ID: **MW-005_20130307_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	25400	ug/L		500	115	SW846 8260B			3/14/13 04:35	GLQ	C
Total Xylenes	12700	ug/L		1500	330	SW846 8260B			3/14/13 04:35	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/12/13 06:56	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 06:56	GLQ	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 06:56	GLQ	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 06:56	GLQ	A
o-Xylene	3650	ug/L		500	165	SW846 8260B			3/14/13 04:35	GLQ	C
mp-Xylene	9030	ug/L		1000	260	SW846 8260B			3/14/13 04:35	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	105	%		62-133		SW846 8260B			3/12/13 06:56	GLQ	A
4-Bromofluorobenzene (S)	107	%		79-114		SW846 8260B			3/12/13 06:56	GLQ	A
Dibromofluoromethane (S)	84.1	%		78-116		SW846 8260B			3/12/13 06:56	GLQ	A
Toluene-d8 (S)	89	%		76-127		SW846 8260B			3/12/13 06:56	GLQ	A
1,2-Dichloroethane-d4 (S)	86.8	%		62-133		SW846 8260B			3/14/13 04:35	GLQ	C
4-Bromofluorobenzene (S)	91.2	%		79-114		SW846 8260B			3/14/13 04:35	GLQ	C
Dibromofluoromethane (S)	88.2	%		78-116		SW846 8260B			3/14/13 04:35	GLQ	C
Toluene-d8 (S)	92	%		76-127		SW846 8260B			3/14/13 04:35	GLQ	C

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004008** Date Collected: 3/8/2013 12:25 Matrix: Ground Water

Sample ID: **MW-005R_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/12/13 07:41	GLQ	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/12/13 07:41	GLQ	A
tert-Amyl Alcohol	1680	ug/L	18	50.0	33.0	SW846 8260B			3/12/13 07:41	GLQ	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 07:41	GLQ	A
Benzene	6000	ug/L		500	115	SW846 8260B			3/12/13 08:04	GLQ	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 07:41	GLQ	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 07:41	GLQ	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/12/13 07:41	GLQ	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/12/13 07:41	GLQ	A
2-Butanone	144	ug/L		50.0	9.0	SW846 8260B			3/12/13 07:41	GLQ	A
tert-Butyl Alcohol	375	ug/L		50.0	11.0	SW846 8260B			3/12/13 07:41	GLQ	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 07:41	GLQ	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 07:41	GLQ	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/12/13 07:41	GLQ	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/12/13 07:41	GLQ	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 07:41	GLQ	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/12/13 07:41	GLQ	A
Chloromethane	39.3	ug/L		5.0	1.6	SW846 8260B			3/12/13 07:41	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/12/13 07:41	GLQ	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 07:41	GLQ	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 07:41	GLQ	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 07:41	GLQ	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 07:41	GLQ	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 07:41	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 07:41	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/12/13 07:41	GLQ	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/12/13 07:41	GLQ	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 07:41	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 07:41	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 07:41	GLQ	A
Diisopropyl ether	4.1J	ug/L		5.0	1.3	SW846 8260B			3/12/13 07:41	GLQ	A
Ethyl tert-butyl ether	1.4J	ug/L		5.0	0.95	SW846 8260B			3/12/13 07:41	GLQ	A
Ethylbenzene	2150	ug/L		500	170	SW846 8260B			3/12/13 08:04	GLQ	A
2-Hexanone	ND	ug/L	17	25.0	6.5	SW846 8260B			3/12/13 07:41	GLQ	A
Methyl t-Butyl Ether	13.4	ug/L		5.0	1.7	SW846 8260B			3/12/13 07:41	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/12/13 07:41	GLQ	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			3/12/13 07:41	GLQ	A
Styrene	20.4	ug/L		5.0	1.2	SW846 8260B			3/12/13 07:41	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 07:41	GLQ	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/12/13 07:41	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004008** Date Collected: 3/8/2013 12:25 Matrix: Ground Water

Sample ID: **MW-005R_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	28500	ug/L		500	115	SW846 8260B			3/12/13 08:04	GLQ	A
Total Xylenes	13000	ug/L		1500	330	SW846 8260B			3/12/13 08:04	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/12/13 07:41	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 07:41	GLQ	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 07:41	GLQ	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 07:41	GLQ	A
o-Xylene	4050	ug/L		500	165	SW846 8260B			3/12/13 08:04	GLQ	A
mp-Xylene	8930	ug/L		1000	260	SW846 8260B			3/12/13 08:04	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102	%		62-133		SW846 8260B			3/12/13 07:41	GLQ	A
4-Bromofluorobenzene (S)	110	%		79-114		SW846 8260B			3/12/13 07:41	GLQ	A
Dibromofluoromethane (S)	86.2	%		78-116		SW846 8260B			3/12/13 07:41	GLQ	A
Toluene-d8 (S)	88.8	%		76-127		SW846 8260B			3/12/13 07:41	GLQ	A
1,2-Dichloroethane-d4 (S)	100	%		62-133		SW846 8260B			3/12/13 08:04	GLQ	A
4-Bromofluorobenzene (S)	108	%		79-114		SW846 8260B			3/12/13 08:04	GLQ	A
Dibromofluoromethane (S)	83.4	%		78-116		SW846 8260B			3/12/13 08:04	GLQ	A
Toluene-d8 (S)	88.1	%		76-127		SW846 8260B			3/12/13 08:04	GLQ	A

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004009** Date Collected: 3/8/2013 11:20 Matrix: Ground Water

Sample ID: **MW-008_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/14/13 05:08	GLQ	B
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/14/13 05:08	GLQ	B
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			3/14/13 05:08	GLQ	B
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 05:08	GLQ	B
Benzene	418	ug/L		5.0	1.2	SW846 8260B			3/14/13 05:08	GLQ	B
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 05:08	GLQ	B
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/14/13 05:08	GLQ	B
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/14/13 05:08	GLQ	B
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/14/13 05:08	GLQ	B
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			3/14/13 05:08	GLQ	B
tert-Butyl Alcohol	347	ug/L		50.0	11.0	SW846 8260B			3/14/13 05:08	GLQ	B
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 05:08	GLQ	B
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 05:08	GLQ	B
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/14/13 05:08	GLQ	B
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/14/13 05:08	GLQ	B
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/14/13 05:08	GLQ	B
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 05:08	GLQ	B
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/14/13 05:08	GLQ	B
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/14/13 05:08	GLQ	B
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/14/13 05:08	GLQ	B
1,2-Dichloroethane	6.5	ug/L		5.0	1.6	SW846 8260B			3/14/13 05:08	GLQ	B
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 05:08	GLQ	B
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 05:08	GLQ	B
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/14/13 05:08	GLQ	B
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/14/13 05:08	GLQ	B
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 05:08	GLQ	B
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/14/13 05:08	GLQ	B
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 05:08	GLQ	B
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			3/14/13 05:08	GLQ	B
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			3/14/13 05:08	GLQ	B
Ethylbenzene	139	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			3/14/13 05:08	GLQ	B
Methyl t-Butyl Ether	550	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/14/13 05:08	GLQ	B
Methylene Chloride	4.3J	ug/L	16	5.0	2.3	SW846 8260B			3/14/13 05:08	GLQ	B
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			3/14/13 05:08	GLQ	B
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/14/13 05:08	GLQ	B

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004009** Date Collected: 3/8/2013 11:20 Matrix: Ground Water

Sample ID: **MW-008_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	11.9	ug/L		5.0	1.2	SW846 8260B			3/14/13 05:08	GLQ	B
Total Xylenes	30.9	ug/L		15.0	3.3	SW846 8260B			3/14/13 05:08	GLQ	B
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/14/13 05:08	GLQ	B
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/14/13 05:08	GLQ	B
o-Xylene	5.4	ug/L		5.0	1.7	SW846 8260B			3/14/13 05:08	GLQ	B
mp-Xylene	25.6	ug/L		10.0	2.6	SW846 8260B			3/14/13 05:08	GLQ	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	84.6	%		62-133		SW846 8260B			3/14/13 05:08	GLQ	B
4-Bromofluorobenzene (S)	87.7	%		79-114		SW846 8260B			3/14/13 05:08	GLQ	B
Dibromofluoromethane (S)	85.5	%		78-116		SW846 8260B			3/14/13 05:08	GLQ	B
Toluene-d8 (S)	91.7	%		76-127		SW846 8260B			3/14/13 05:08	GLQ	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004010** Date Collected: 3/8/2013 11:50 Matrix: Ground Water

Sample ID: **MP-001_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		100	31.0	SW846 8260B			3/12/13 08:48	GLQ	A
tert-Amyl methyl ether	ND	ug/L		10.0	2.0	SW846 8260B			3/12/13 08:48	GLQ	A
tert-Amyl Alcohol	3080	ug/L	18	100	66.0	SW846 8260B			3/12/13 08:48	GLQ	A
tert-Amyl Ethylether	ND	ug/L		10.0	2.9	SW846 8260B			3/12/13 08:48	GLQ	A
Benzene	1230	ug/L		10.0	2.3	SW846 8260B			3/12/13 08:48	GLQ	A
Bromochloromethane	ND	ug/L		10.0	3.2	SW846 8260B			3/12/13 08:48	GLQ	A
Bromodichloromethane	ND	ug/L		10.0	2.7	SW846 8260B			3/12/13 08:48	GLQ	A
Bromoform	ND	ug/L		10.0	4.0	SW846 8260B			3/12/13 08:48	GLQ	A
Bromomethane	ND	ug/L		10.0	3.9	SW846 8260B			3/12/13 08:48	GLQ	A
2-Butanone	ND	ug/L		100	18.0	SW846 8260B			3/12/13 08:48	GLQ	A
tert-Butyl Alcohol	1210	ug/L		100	22.0	SW846 8260B			3/12/13 08:48	GLQ	A
Carbon Disulfide	ND	ug/L		10.0	2.3	SW846 8260B			3/12/13 08:48	GLQ	A
Carbon Tetrachloride	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 08:48	GLQ	A
Chlorobenzene	ND	ug/L		10.0	1.9	SW846 8260B			3/12/13 08:48	GLQ	A
Chlorodibromomethane	ND	ug/L		10.0	4.5	SW846 8260B			3/12/13 08:48	GLQ	A
Chloroethane	ND	ug/L		10.0	3.3	SW846 8260B			3/12/13 08:48	GLQ	A
Chloroform	ND	ug/L		10.0	2.1	SW846 8260B			3/12/13 08:48	GLQ	A
Chloromethane	438	ug/L		10.0	3.1	SW846 8260B			3/12/13 08:48	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		70.0	15.0	SW846 8260B			3/12/13 08:48	GLQ	A
1,2-Dibromoethane	ND	ug/L		10.0	2.8	SW846 8260B			3/12/13 08:48	GLQ	A
Dichlorodifluoromethane	ND	ug/L		10.0	3.3	SW846 8260B			3/12/13 08:48	GLQ	A
1,1-Dichloroethane	ND	ug/L		10.0	2.8	SW846 8260B			3/12/13 08:48	GLQ	A
1,2-Dichloroethane	ND	ug/L		10.0	3.2	SW846 8260B			3/12/13 08:48	GLQ	A
1,1-Dichloroethene	ND	ug/L		10.0	2.9	SW846 8260B			3/12/13 08:48	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		10.0	3.2	SW846 8260B			3/12/13 08:48	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		10.0	2.6	SW846 8260B			3/12/13 08:48	GLQ	A
Dichlorofluoromethane	ND	ug/L		10.0	3.7	SW846 8260B			3/12/13 08:48	GLQ	A
1,2-Dichloropropane	ND	ug/L		10.0	2.4	SW846 8260B			3/12/13 08:48	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 08:48	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		10.0	2.9	SW846 8260B			3/12/13 08:48	GLQ	A
Diisopropyl ether	88.3	ug/L		10.0	2.5	SW846 8260B			3/12/13 08:48	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		10.0	1.9	SW846 8260B			3/12/13 08:48	GLQ	A
Ethylbenzene	57.2	ug/L		10.0	3.4	SW846 8260B			3/12/13 08:48	GLQ	A
2-Hexanone	ND	ug/L	17	50.0	13.0	SW846 8260B			3/12/13 08:48	GLQ	A
Methyl t-Butyl Ether	39.9	ug/L		10.0	3.3	SW846 8260B			3/12/13 08:48	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		50.0	15.0	SW846 8260B			3/12/13 08:48	GLQ	A
Methylene Chloride	ND	ug/L		10.0	4.5	SW846 8260B			3/12/13 08:48	GLQ	A
Styrene	ND	ug/L		10.0	2.4	SW846 8260B			3/12/13 08:48	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		10.0	3.4	SW846 8260B			3/12/13 08:48	GLQ	A
Tetrachloroethene	ND	ug/L		10.0	3.5	SW846 8260B			3/12/13 08:48	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004010** Date Collected: 3/8/2013 11:50 Matrix: Ground Water

Sample ID: **MP-001_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	3180	ug/L		200	46.0	SW846 8260B			3/14/13 05:41	GLQ	B
Total Xylenes	948	ug/L		30.0	6.6	SW846 8260B			3/12/13 08:48	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		10.0	2.2	SW846 8260B			3/12/13 08:48	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		10.0	3.3	SW846 8260B			3/12/13 08:48	GLQ	A
Trichloroethene	ND	ug/L		10.0	3.3	SW846 8260B			3/12/13 08:48	GLQ	A
Vinyl Chloride	ND	ug/L		10.0	3.0	SW846 8260B			3/12/13 08:48	GLQ	A
o-Xylene	320	ug/L		10.0	3.3	SW846 8260B			3/12/13 08:48	GLQ	A
mp-Xylene	628	ug/L		20.0	5.2	SW846 8260B			3/12/13 08:48	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	101	%		62-133		SW846 8260B			3/12/13 08:48	GLQ	A
4-Bromofluorobenzene (S)	110	%		79-114		SW846 8260B			3/12/13 08:48	GLQ	A
Dibromofluoromethane (S)	84.7	%		78-116		SW846 8260B			3/12/13 08:48	GLQ	A
Toluene-d8 (S)	88.3	%		76-127		SW846 8260B			3/12/13 08:48	GLQ	A
1,2-Dichloroethane-d4 (S)	85.4	%		62-133		SW846 8260B			3/14/13 05:41	GLQ	B
4-Bromofluorobenzene (S)	88.5	%		79-114		SW846 8260B			3/14/13 05:41	GLQ	B
Dibromofluoromethane (S)	87.8	%		78-116		SW846 8260B			3/14/13 05:41	GLQ	B
Toluene-d8 (S)	92.6	%		76-127		SW846 8260B			3/14/13 05:41	GLQ	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004011** Date Collected: 3/8/2013 13:00 Matrix: Ground Water

Sample ID: **MP-002_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 09:11	GLQ	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/12/13 09:11	GLQ	A
tert-Amyl Alcohol	ND	ug/L		250	165	SW846 8260B			3/14/13 06:14	GLQ	B
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 09:11	GLQ	A
Benzene	357	ug/L		25.0	5.8	SW846 8260B			3/14/13 06:14	GLQ	B
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 09:11	GLQ	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/12/13 09:11	GLQ	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/12/13 09:11	GLQ	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/12/13 09:11	GLQ	A
2-Butanone	6.0J	ug/L		10.0	1.8	SW846 8260B			3/12/13 09:11	GLQ	A
tert-Butyl Alcohol	534	ug/L	19,20	10.0	2.2	SW846 8260B			3/12/13 09:11	GLQ	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 09:11	GLQ	A
Carbon Tetrachloride	ND	ug/L	21	1.0	0.31	SW846 8260B			3/12/13 09:11	GLQ	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 09:11	GLQ	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 09:11	GLQ	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 09:11	GLQ	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/12/13 09:11	GLQ	A
Chloromethane	190	ug/L	22,23	1.0	0.31	SW846 8260B			3/12/13 09:11	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/12/13 09:11	GLQ	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 09:11	GLQ	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 09:11	GLQ	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 09:11	GLQ	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 09:11	GLQ	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 09:11	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 09:11	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/12/13 09:11	GLQ	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/12/13 09:11	GLQ	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 09:11	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 09:11	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 09:11	GLQ	A
Diisopropyl ether	14.2	ug/L		1.0	0.25	SW846 8260B			3/12/13 09:11	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 09:11	GLQ	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 09:11	GLQ	A
2-Hexanone	ND	ug/L	17,24,25	5.0	1.3	SW846 8260B			3/12/13 09:11	GLQ	A
Methyl t-Butyl Ether	5.1	ug/L		1.0	0.33	SW846 8260B			3/12/13 09:11	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 09:11	GLQ	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 09:11	GLQ	A
Styrene	0.34J	ug/L		1.0	0.24	SW846 8260B			3/12/13 09:11	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 09:11	GLQ	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/12/13 09:11	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004011** Date Collected: 3/8/2013 13:00 Matrix: Ground Water

Sample ID: **MP-002_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	2180	ug/L		25.0	5.8	SW846 8260B			3/14/13 06:14	GLQ	B
Total Xylenes	186	ug/L		3.0	0.66	SW846 8260B			3/12/13 09:11	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/12/13 09:11	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 09:11	GLQ	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 09:11	GLQ	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/12/13 09:11	GLQ	A
o-Xylene	67.9	ug/L	26	1.0	0.33	SW846 8260B			3/12/13 09:11	GLQ	A
mp-Xylene	118	ug/L		2.0	0.52	SW846 8260B			3/12/13 09:11	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	105	%		62-133		SW846 8260B			3/12/13 09:11	GLQ	A
4-Bromofluorobenzene (S)	112	%		79-114		SW846 8260B			3/12/13 09:11	GLQ	A
Dibromofluoromethane (S)	81.2	%		78-116		SW846 8260B			3/12/13 09:11	GLQ	A
Toluene-d8 (S)	89.9	%		76-127		SW846 8260B			3/12/13 09:11	GLQ	A
1,2-Dichloroethane-d4 (S)	84	%		62-133		SW846 8260B			3/14/13 06:14	GLQ	B
4-Bromofluorobenzene (S)	90.1	%		79-114		SW846 8260B			3/14/13 06:14	GLQ	B
Dibromofluoromethane (S)	87.5	%		78-116		SW846 8260B			3/14/13 06:14	GLQ	B
Toluene-d8 (S)	89	%		76-127		SW846 8260B			3/14/13 06:14	GLQ	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004012** Date Collected: 3/8/2013 12:50 Matrix: Ground Water

Sample ID: **MW-003_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	126	ug/L		50.0	15.5	SW846 8260B			3/13/13 06:23	DD	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/13/13 06:23	DD	A
tert-Amyl Alcohol	73.5	ug/L		50.0	33.0	SW846 8260B			3/13/13 06:23	DD	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/13/13 06:23	DD	A
Benzene	12.1	ug/L		5.0	1.2	SW846 8260B			3/13/13 06:23	DD	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/13/13 06:23	DD	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/13/13 06:23	DD	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/13/13 06:23	DD	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/13/13 06:23	DD	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			3/13/13 06:23	DD	A
tert-Butyl Alcohol	117	ug/L		50.0	11.0	SW846 8260B			3/13/13 06:23	DD	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/13/13 06:23	DD	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			3/13/13 06:23	DD	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/13/13 06:23	DD	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/13/13 06:23	DD	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/13/13 06:23	DD	A
Chloromethane	2.7J	ug/L		5.0	1.6	SW846 8260B			3/13/13 06:23	DD	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/13/13 06:23	DD	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/13/13 06:23	DD	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/13/13 06:23	DD	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			3/13/13 06:23	DD	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/13/13 06:23	DD	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/13/13 06:23	DD	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/13/13 06:23	DD	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/13/13 06:23	DD	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/13/13 06:23	DD	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/13/13 06:23	DD	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/13/13 06:23	DD	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			3/13/13 06:23	DD	A
Ethyl tert-butyl ether	1.3J	ug/L		5.0	0.95	SW846 8260B			3/13/13 06:23	DD	A
Ethylbenzene	322	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
2-Hexanone	ND	ug/L	27	25.0	6.5	SW846 8260B			3/13/13 06:23	DD	A
Methyl t-Butyl Ether	2.0J	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/13/13 06:23	DD	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			3/13/13 06:23	DD	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			3/13/13 06:23	DD	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/13/13 06:23	DD	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004012** Date Collected: 3/8/2013 12:50 Matrix: Ground Water

Sample ID: **MW-003_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	237	ug/L		5.0	1.2	SW846 8260B			3/13/13 06:23	DD	A
Total Xylenes	1710	ug/L		15.0	3.3	SW846 8260B			3/13/13 06:23	DD	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/13/13 06:23	DD	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/13/13 06:23	DD	A
o-Xylene	485	ug/L		5.0	1.7	SW846 8260B			3/13/13 06:23	DD	A
mp-Xylene	1220	ug/L		10.0	2.6	SW846 8260B			3/13/13 06:23	DD	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	104	%		62-133		SW846 8260B			3/13/13 06:23	DD	A
4-Bromofluorobenzene (S)	108	%		79-114		SW846 8260B			3/13/13 06:23	DD	A
Dibromofluoromethane (S)	83.2	%		78-116		SW846 8260B			3/13/13 06:23	DD	A
Toluene-d8 (S)	85.3	%		76-127		SW846 8260B			3/13/13 06:23	DD	A

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004013** Date Collected: 3/8/2013 12:00 Matrix: Ground Water

Sample ID: **MW-003R_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/13/13 04:31	DD	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/13/13 04:31	DD	A
tert-Amyl Alcohol	291	ug/L		10.0	6.6	SW846 8260B			3/13/13 04:31	DD	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/13/13 04:31	DD	A
Benzene	70.8	ug/L		1.0	0.23	SW846 8260B			3/13/13 04:31	DD	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/13/13 04:31	DD	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/13/13 04:31	DD	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/13/13 04:31	DD	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/13/13 04:31	DD	A
2-Butanone	11.9	ug/L		10.0	1.8	SW846 8260B			3/13/13 04:31	DD	A
tert-Butyl Alcohol	542	ug/L		10.0	2.2	SW846 8260B			3/13/13 04:31	DD	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			3/13/13 04:31	DD	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			3/13/13 04:31	DD	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/13/13 04:31	DD	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/13/13 04:31	DD	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/13/13 04:31	DD	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/13/13 04:31	DD	A
Chloromethane	7.0	ug/L		1.0	0.31	SW846 8260B			3/13/13 04:31	DD	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/13/13 04:31	DD	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/13/13 04:31	DD	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/13/13 04:31	DD	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/13/13 04:31	DD	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/13/13 04:31	DD	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/13/13 04:31	DD	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/13/13 04:31	DD	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/13/13 04:31	DD	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/13/13 04:31	DD	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/13/13 04:31	DD	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/13/13 04:31	DD	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/13/13 04:31	DD	A
Diisopropyl ether	3.4	ug/L		1.0	0.25	SW846 8260B			3/13/13 04:31	DD	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/13/13 04:31	DD	A
Ethylbenzene	10	ug/L		1.0	0.34	SW846 8260B			3/13/13 04:31	DD	A
2-Hexanone	ND	ug/L	27	5.0	1.3	SW846 8260B			3/13/13 04:31	DD	A
Methyl t-Butyl Ether	17.7	ug/L		1.0	0.33	SW846 8260B			3/13/13 04:31	DD	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/13/13 04:31	DD	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/13/13 04:31	DD	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/13/13 04:31	DD	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/13/13 04:31	DD	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/13/13 04:31	DD	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004013** Date Collected: 3/8/2013 12:00 Matrix: Ground Water

Sample ID: **MW-003R_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	9.0	ug/L		1.0	0.23	SW846 8260B			3/13/13 04:31	DD	A
Total Xylenes	71.8	ug/L		3.0	0.66	SW846 8260B			3/13/13 04:31	DD	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/13/13 04:31	DD	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/13/13 04:31	DD	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/13/13 04:31	DD	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/13/13 04:31	DD	A
o-Xylene	15.2	ug/L		1.0	0.33	SW846 8260B			3/13/13 04:31	DD	A
mp-Xylene	56.7	ug/L		2.0	0.52	SW846 8260B			3/13/13 04:31	DD	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	105	%		62-133		SW846 8260B			3/13/13 04:31	DD	A
4-Bromofluorobenzene (S)	114	%		79-114		SW846 8260B			3/13/13 04:31	DD	A
Dibromofluoromethane (S)	84.7	%		78-116		SW846 8260B			3/13/13 04:31	DD	A
Toluene-d8 (S)	88	%		76-127		SW846 8260B			3/13/13 04:31	DD	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004014** Date Collected: 3/7/2013 00:00 Matrix: Ground Water

Sample ID: **DUP-001_20130307_FD** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			3/12/13 10:41	GLQ	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			3/12/13 10:41	GLQ	A
tert-Amyl Alcohol	4050	ug/L	18	50.0	33.0	SW846 8260B			3/12/13 10:41	GLQ	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 10:41	GLQ	A
Benzene	55.4	ug/L		5.0	1.2	SW846 8260B			3/12/13 10:41	GLQ	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 10:41	GLQ	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 10:41	GLQ	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			3/12/13 10:41	GLQ	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			3/12/13 10:41	GLQ	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			3/12/13 10:41	GLQ	A
tert-Butyl Alcohol	1720	ug/L		50.0	11.0	SW846 8260B			3/12/13 10:41	GLQ	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 10:41	GLQ	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 10:41	GLQ	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			3/12/13 10:41	GLQ	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			3/12/13 10:41	GLQ	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			3/12/13 10:41	GLQ	A
Chloromethane	5.3	ug/L		5.0	1.6	SW846 8260B			3/12/13 10:41	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			3/12/13 10:41	GLQ	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 10:41	GLQ	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			3/12/13 10:41	GLQ	A
1,2-Dichloroethane	153	ug/L		5.0	1.6	SW846 8260B			3/12/13 10:41	GLQ	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 10:41	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 10:41	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			3/12/13 10:41	GLQ	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			3/12/13 10:41	GLQ	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 10:41	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			3/12/13 10:41	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 10:41	GLQ	A
Diisopropyl ether	31.2	ug/L		5.0	1.3	SW846 8260B			3/12/13 10:41	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			3/12/13 10:41	GLQ	A
Ethylbenzene	3.3J	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
2-Hexanone	ND	ug/L	17	25.0	6.5	SW846 8260B			3/12/13 10:41	GLQ	A
Methyl t-Butyl Ether	102	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			3/12/13 10:41	GLQ	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			3/12/13 10:41	GLQ	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			3/12/13 10:41	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			3/12/13 10:41	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004014** Date Collected: 3/7/2013 00:00 Matrix: Ground Water

Sample ID: **DUP-001_20130307_FD** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	2.4J	ug/L		5.0	1.2	SW846 8260B			3/12/13 10:41	GLQ	A
Total Xylenes	ND	ug/L		15.0	3.3	SW846 8260B			3/12/13 10:41	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			3/12/13 10:41	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 10:41	GLQ	A
o-Xylene	1.8J	ug/L		5.0	1.7	SW846 8260B			3/12/13 10:41	GLQ	A
mp-Xylene	ND	ug/L		10.0	2.6	SW846 8260B			3/12/13 10:41	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	110	%		62-133		SW846 8260B			3/12/13 10:41	GLQ	A
4-Bromofluorobenzene (S)	112	%		79-114		SW846 8260B			3/12/13 10:41	GLQ	A
Dibromofluoromethane (S)	86.6	%		78-116		SW846 8260B			3/12/13 10:41	GLQ	A
Toluene-d8 (S)	91.3	%		76-127		SW846 8260B			3/12/13 10:41	GLQ	A

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004015** Date Collected: 3/7/2013 12:12 Matrix: Ground Water

Sample ID: **Field Blank-001_20130307_FB** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 05:50	GLQ	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/12/13 05:50	GLQ	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			3/12/13 05:50	GLQ	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:50	GLQ	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:50	GLQ	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:50	GLQ	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/12/13 05:50	GLQ	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/12/13 05:50	GLQ	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/12/13 05:50	GLQ	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			3/12/13 05:50	GLQ	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			3/12/13 05:50	GLQ	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:50	GLQ	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:50	GLQ	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 05:50	GLQ	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 05:50	GLQ	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:50	GLQ	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/12/13 05:50	GLQ	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:50	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/12/13 05:50	GLQ	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 05:50	GLQ	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:50	GLQ	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 05:50	GLQ	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:50	GLQ	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:50	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:50	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/12/13 05:50	GLQ	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/12/13 05:50	GLQ	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 05:50	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:50	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:50	GLQ	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			3/12/13 05:50	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 05:50	GLQ	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 05:50	GLQ	A
2-Hexanone	ND	ug/L	17	5.0	1.3	SW846 8260B			3/12/13 05:50	GLQ	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:50	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 05:50	GLQ	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 05:50	GLQ	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 05:50	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 05:50	GLQ	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/12/13 05:50	GLQ	A

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004015** Date Collected: 3/7/2013 12:12 Matrix: Ground Water

Sample ID: **Field Blank-001_20130307_FB** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:50	GLQ	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			3/12/13 05:50	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/12/13 05:50	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:50	GLQ	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:50	GLQ	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/12/13 05:50	GLQ	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:50	GLQ	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			3/12/13 05:50	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	104	%		62-133		SW846 8260B			3/12/13 05:50	GLQ	A
4-Bromofluorobenzene (S)	107	%		79-114		SW846 8260B			3/12/13 05:50	GLQ	A
Dibromofluoromethane (S)	84.9	%		78-116		SW846 8260B			3/12/13 05:50	GLQ	A
Toluene-d8 (S)	87.8	%		76-127		SW846 8260B			3/12/13 05:50	GLQ	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004016** Date Collected: 3/8/2013 12:15 Matrix: Ground Water

Sample ID: **Field Blank-002_20130308_FB** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 05:27	GLQ	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/12/13 05:27	GLQ	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			3/12/13 05:27	GLQ	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:27	GLQ	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:27	GLQ	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:27	GLQ	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/12/13 05:27	GLQ	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/12/13 05:27	GLQ	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/12/13 05:27	GLQ	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			3/12/13 05:27	GLQ	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			3/12/13 05:27	GLQ	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:27	GLQ	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:27	GLQ	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 05:27	GLQ	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 05:27	GLQ	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:27	GLQ	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/12/13 05:27	GLQ	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:27	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/12/13 05:27	GLQ	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 05:27	GLQ	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:27	GLQ	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 05:27	GLQ	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:27	GLQ	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:27	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:27	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/12/13 05:27	GLQ	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/12/13 05:27	GLQ	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 05:27	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:27	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:27	GLQ	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			3/12/13 05:27	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 05:27	GLQ	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 05:27	GLQ	A
2-Hexanone	ND	ug/L	17	5.0	1.3	SW846 8260B			3/12/13 05:27	GLQ	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:27	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 05:27	GLQ	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 05:27	GLQ	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 05:27	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 05:27	GLQ	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/12/13 05:27	GLQ	A

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004016** Date Collected: 3/8/2013 12:15 Matrix: Ground Water

Sample ID: **Field Blank-002_20130308_FB** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:27	GLQ	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			3/12/13 05:27	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/12/13 05:27	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:27	GLQ	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:27	GLQ	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/12/13 05:27	GLQ	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:27	GLQ	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			3/12/13 05:27	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102	%		62-133		SW846 8260B			3/12/13 05:27	GLQ	A
4-Bromofluorobenzene (S)	108	%		79-114		SW846 8260B			3/12/13 05:27	GLQ	A
Dibromofluoromethane (S)	85.7	%		78-116		SW846 8260B			3/12/13 05:27	GLQ	A
Toluene-d8 (S)	85.7	%		76-127		SW846 8260B			3/12/13 05:27	GLQ	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004017** Date Collected: 3/7/2013 00:00 Matrix: Ground Water

Sample ID: **Trip Blank-001_20130307_TB** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			3/12/13 05:04	GLQ	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			3/12/13 05:04	GLQ	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			3/12/13 05:04	GLQ	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:04	GLQ	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:04	GLQ	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:04	GLQ	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			3/12/13 05:04	GLQ	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			3/12/13 05:04	GLQ	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			3/12/13 05:04	GLQ	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			3/12/13 05:04	GLQ	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			3/12/13 05:04	GLQ	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:04	GLQ	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:04	GLQ	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 05:04	GLQ	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 05:04	GLQ	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:04	GLQ	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			3/12/13 05:04	GLQ	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:04	GLQ	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			3/12/13 05:04	GLQ	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 05:04	GLQ	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:04	GLQ	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			3/12/13 05:04	GLQ	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:04	GLQ	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:04	GLQ	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			3/12/13 05:04	GLQ	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			3/12/13 05:04	GLQ	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			3/12/13 05:04	GLQ	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 05:04	GLQ	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			3/12/13 05:04	GLQ	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			3/12/13 05:04	GLQ	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			3/12/13 05:04	GLQ	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			3/12/13 05:04	GLQ	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 05:04	GLQ	A
2-Hexanone	ND	ug/L	17	5.0	1.3	SW846 8260B			3/12/13 05:04	GLQ	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:04	GLQ	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			3/12/13 05:04	GLQ	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			3/12/13 05:04	GLQ	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			3/12/13 05:04	GLQ	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			3/12/13 05:04	GLQ	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			3/12/13 05:04	GLQ	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1016004 Groundwater (03/08/13)

Lab ID: **1016004017** Date Collected: 3/7/2013 00:00 Matrix: Ground Water

Sample ID: **Trip Blank-001_20130307_TB** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			3/12/13 05:04	GLQ	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			3/12/13 05:04	GLQ	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			3/12/13 05:04	GLQ	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:04	GLQ	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:04	GLQ	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			3/12/13 05:04	GLQ	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			3/12/13 05:04	GLQ	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			3/12/13 05:04	GLQ	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	104	%		62-133		SW846 8260B			3/12/13 05:04	GLQ	A
4-Bromofluorobenzene (S)	107	%		79-114		SW846 8260B			3/12/13 05:04	GLQ	A
Dibromofluoromethane (S)	86	%		78-116		SW846 8260B			3/12/13 05:04	GLQ	A
Toluene-d8 (S)	87.7	%		76-127		SW846 8260B			3/12/13 05:04	GLQ	A

Sample Comments:

Anna G Milliken
Technical Manager

ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1016004 Groundwater (03/08/13)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Carbon Tetrachloride. The % Recovery was reported as 40.4 and the control limits were 62 to 132.

[2] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 125 and the control limits were 76 to 121.

[3] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Benzene. The % Recovery was reported as 125 and the control limits were 80 to 124.

[4] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte tert-Butyl Alcohol. The RPD was reported as 54.8 and the upper control limit is 40.

[5] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 139 and the control limits were 57 to 131.

[6] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 139 and the control limits were 57 to 131.

[7] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Carbon Tetrachloride. The % Recovery was reported as 54.9 and the control limits were 62 to 132.

[8] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Carbon Tetrachloride. The % Recovery was reported as 53.6 and the control limits were 62 to 132.

[9] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 135 and the control limits were 63 to 128.

[10] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 131 and the control limits were 63 to 128.

[11] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 124 and the control limits were 71 to 122.

[12] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 120 and the control limits were 69 to 115.

[13] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 116 and the control limits were 69 to 115.

[14] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 122 and the control limits were 76 to 121.

[15] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 141 and the control limits were 57 to 131.

[16] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 127 and the control limits were 76 to 121.

ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1016004 Groundwater (03/08/13)

PARAMETER QUALIFIERS\FLAGS

[17] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 58.8 and the control limits were 65 to 154.

[18] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as 137 and the control limits were 70 to 130.

[19] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Butyl Alcohol. The % Recovery was reported as 239 and the control limits were 17 to 168.

[20] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte tert-Butyl Alcohol. The % Recovery was reported as 255 and the control limits were 17 to 168.

[21] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Carbon Tetrachloride. The % Recovery was reported as 133 and the control limits were 62 to 132.

[22] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chloromethane. The % Recovery was reported as 26.2 and the control limits were 38 to 156.

[23] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Chloromethane. The % Recovery was reported as -15.5 and the control limits were 38 to 156.

[24] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 50.2 and the control limits were 65 to 154.

[25] The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 50.8 and the control limits were 65 to 154.

[26] The QC sample type MS for method SW846 8260B was outside the control limits for the analyte o-Xylene. The % Recovery was reported as 130 and the control limits were 79 to 124.

[27] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 53.8 and the control limits were 65 to 154.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 3
Courier:
Tracking #:
1016004

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142

Bill to (if different than Report to): Same
PO#: 7900

Project Name/#: Calvert Citgo / 5977
ALSI Quote #:

TAT: [X] Normal-Standard TAT ~~is 10-12 business days.~~ 5-day
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [X] Y jmanuel@repsg.com / bmaephail@repsg.com
Fax? Y No.:

***Container Type: Vaa
***Container Size: 40ml
***Preservative: HCL

ANALYSES/METHOD REQUESTED: VOC's By 8260B Including Fuel Oxygenates

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOC's By 8260B (Enter Number of Containers Per Analysis)
1 MW-007		3/7/13	14:45	G	GW	X3
2 MW-002		3/7/13	14:30	G	GW	X3
3 MW-006		3/7/13	13:30	G	GW	X3
4 MW-001		3/7/13	12:10	G	GW	X3
5 MW-001R		3/7/13	11:30	G	GW	X3
6 MW-008D		3/7/13	15:15	G	GW	X3
7 MW-005		3/7/13	15:35	G	GW	X3
8 MW-005R		3/7/13	12:35	G	GW	X3

(completed by Sample Receiving)
Performed by: AT
Cooler Temp: 1
Therm. ID: T/2/5
No. of Coolers:
Notes:

Check	Y	N
Correct containers?	(Y)	N
Correct sample volume?	(Y)	N
Correct preservation?	(Y)	N
Headspace/Volatiles?	Y	(N)
Circle appropriate Y or N.		
Custody seals Present?	Y	(N)
(If present) Seals intact?	Y	N
Received on ice?	(Y)	N
COC/Labels complete/accurate?	(Y)	N
Container in good condition?	(Y)	N

SAMPLED BY (Please Print): M. Ramon
LOGGED BY (signature): [signature] Date: 3/9/13 Time: 1102
REVIEWED BY (signature): [signature] Date: 3/12/13 Time: 1224

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	3/8/13	1520	2	[signature] ALS	3/8	1520
3	[signature]	3/8/13	1750	4	[signature]	3/8	1750
5	[signature]	3/8	1952	6	[signature]	3/8	1952
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] Other
EDDs Required? [X] If yes, format type: EQUIS
DOD Criteria Required?

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
⇨Enter PWSID No

ALSI FIELD SERVICES: [P] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2
Courier:
Tracking #:
1/16/2013

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Lallogy Phone: (215) 739-3320
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (if different than Report to): Same PO#: 7900
Project Name/#: Calvert City/5977 ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5-day Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:
Email? Y / N: manuel.crespo.com/bmcgahan@repsg.com
Fax? Y / N:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	Matrix	Container Type	Container Size	Preservative	ANALYSES/METHOD REQUESTED	Enter Number of Containers Per Analysis
1	MW-008		3/8/13	11:20	G	GW	Vial	40ml	HCl	Holding for 8260 Analysis	X3
2	MP-001		3/8/13	11:50	G	GW	Vial	40ml	HCl		X3
3	MP-002		3/8/13	13:00	G	GW	Vial	40ml	HCl		X3
4	MW-003		3/8/13	12:50	G	GW	Vial	40ml	HCl		X3
5	MW-003R		3/8/13	12:00	G	GW	Vial	40ml	HCl		X3
6	DUP-001		3/7/13	—	G	GW	Vial	40ml	HCl		X3
7	Field Blank-001		3/7/13	12:12	G	DI	Vial	40ml	HCl		X3
8	Field Blank-002		3/8/13	12:15	G	DI	Vial	40ml	HCl		X3

SAMPLED BY (Please Print):
LOGGED BY (signature): DATE: 3/9/13
REVIEWED BY (signature): DATE: 3/10/13

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Format? yes; State Samples Collected in? MD, NJ, NY, PA; If yes, format type: Other; EQuIS

DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Custody seals Present? Y N
(if present) Seals Intact? Y N
Received on ice? Y N
COC/Labels complete/accurate? Y N
Headspace/Volatiles? Y N
Correct sample volume? Y N
Correct preservation? Y N
Correct containers? Y N
Circle appropriate Y or N.

Notes:
No. of Coolers:
Cooler Temp:
Therm. ID:
Receipt Information (Verified by Sample Receipt)
Preferred by:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1		3/9/13	1334	2	ALS	3/9	1570
3		3/9/13	1750	4		3/9	1752
5		3/9	1952	6		3/9	1952
7				8			
9				10			

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 3 of 3
Courier:
Tracking #:
Octo#

Co. Name: PERSG, Inc.
Contact (Report to): Phone:
Address: 6901 Kingsessing Ave. Phila, PA 19142 (215)729-3220

Bill to (if different than Report to): Same
PO#: 7900
Project Name#: Calvert Cliffs/5977 ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5-day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? Y N bmurphy@prosg.com; jmanuel@prosg.com
Fax? Y N No:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	"G or C	"Matrix	Enter Number of Containers Per Analysis
1	Trip Blank-001		3/7/13	—	G	DW	X3
2							
3							
4							
5							
6							
7							
8							

"Container Type: VOA
""Container Size: 40ml
"" Preservative: HCL

ANALYSES/METHOD REQUESTED
Soil's By Headspace Only Organics

Receipt Information (completed by Sample Receipt)
Preferred by:
Cooler Temp:
Therm. ID: TR05
No. of Coolers:
Notes:

Custody seals Present?	Y	N
(if present) Seals Intact?	Y	N
Correct sample volume?	Y	N
Correct preservation?	Y	N
Correct containers?	Y	N
Container in good condition?	Y	N
COC/Labels complete/accurate?	Y	N
Received on ice?	Y	N
Headspace/Volatiles?	Y	N
Circle appropriate Y or N.		

ALSI FIELD SERVICES
Pickup: X
Labor:
Composite Sampling:
Rental Equipment:
Other:

Data Deliverables
Standard
CLP-like
NJ-Reduced
NJ-Full
SRWA Format? yes
State Samples Collected in? MD X NJ NY PA
If yes, format type: Other
EQuIS

DOD Criteria Required?

SAMPLED BY (Please Print): M. Ramon
LOGGED BY (signature): DATE
REVIEWED BY (signature): DATE

	Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1		3/6/13	1530	2	3/6/13	1530
3		3/6/13	1530	4	3/6/13	1250
5		3/6	1952	6	3/6	1850
7				8		
9				10		

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
* G=Grab; C=Composite **Matrix: Air=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG=Amber Glass; CG=Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Rev 6/07

New Jersey ACCUTEST LABORATORIES

03/22/13

Technical Report for

REPSG, Inc.

Calvert Citgo, Northeast, MD

5977 PO#7916

Accutest Job Number: JB31444

Sampling Date: 03/13/13

Report to:

REPSG, Inc.
6901 Kingsessing Avenue
Philadelphia, PA 19142
JManuel@repsg.com; BMacPhail@REPSG.com

ATTN: James Manuel

Total number of pages in report: **11**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Michelle OBrien 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

Sections: 1 2 3 4

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Sample Summary

REPSG, Inc.

Job No: JB31444

Calvert Citgo, Northeast, MD
Project No: 5977 PO#7916

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB31444-1	03/13/13	16:00	BM	03/14/13	AQ	Ground Water	MW-005R

Summary of Hits

Job Number: JB31444
Account: REPSG, Inc.
Project: Calvert Citgo, Northeast, MD
Collected: 03/13/13

Lab Sample ID / Analyte	Client Sample ID / Result/ Qual	RL	MDL	Units	Method
JB31444-1	**MW-005R**				
Acetone	291	100	33	ug/l	SW846 8260B
Benzene	872	10	2.4	ug/l	SW846 8260B
2-Butanone (MEK)	236	100	24	ug/l	SW846 8260B
1,2-Dibromoethane	4.8 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene	224	10	2.3	ug/l	SW846 8260B
Isopropylbenzene	10.2 J	20	4.5	ug/l	SW846 8260B
Methyl Tert Butyl Ether	4.7 J	10	1.6	ug/l	SW846 8260B
4-Methyl-2-pentanone(MIBK)	12.1 J	50	8.3	ug/l	SW846 8260B
Naphthalene	75.1	50	11	ug/l	SW846 8260B
n-Propylbenzene	24.6 J	50	2.4	ug/l	SW846 8260B
Tert Butyl Alcohol	249 J	250	18	ug/l	SW846 8260B
Toluene	2290	50	11	ug/l	SW846 8260B
Trichloroethene	393	10	2.2	ug/l	SW846 8260B
1,2,4-Trimethylbenzene	184	20	1.9	ug/l	SW846 8260B
1,3,5-Trimethylbenzene	49.1	20	3.6	ug/l	SW846 8260B
m,p-Xylene	764	10	4.2	ug/l	SW846 8260B
o-Xylene	376	10	2.4	ug/l	SW846 8260B
Xylene (total)	1140	10	2.4	ug/l	SW846 8260B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-005R		
Lab Sample ID:	JB31444-1	**Date Sampled:**	03/13/13
Matrix:	AQ - Ground Water	**Date Received:**	03/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Calvert Citgo, Northeast, MD		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D119040.D	10	03/21/13	ET	n/a	n/a	V2D4948
Run #2	2D119043.D	50	03/21/13	ET	n/a	n/a	V2D4948

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Full List + Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	291	100	33	ug/l	
71-43-2	Benzene	872	10	2.4	ug/l	
108-86-1	Bromobenzene	ND	50	1.4	ug/l	
74-97-5	Bromochloromethane	ND	50	3.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.1	ug/l	
75-25-2	Bromoform	ND	40	2.1	ug/l	
74-83-9	Bromomethane	ND	20	2.2	ug/l	
78-93-3	2-Butanone (MEK)	236	100	24	ug/l	
104-51-8	n-Butylbenzene	ND	50	1.7	ug/l	
135-98-8	sec-Butylbenzene	ND	50	2.1	ug/l	
98-06-6	tert-Butylbenzene	ND	50	3.0	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.2	ug/l	
108-90-7	Chlorobenzene	ND	10	2.3	ug/l	
75-00-3	Chloroethane	ND	10	2.6	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
74-87-3	Chloromethane	ND	10	2.1	ug/l	
95-49-8	o-Chlorotoluene	ND	50	1.5	ug/l	
106-43-4	p-Chlorotoluene	ND	50	3.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	50	1.7	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	5.4	ug/l	
124-48-1	Dibromochloromethane	ND	10	1.4	ug/l	
106-93-4	1,2-Dibromoethane	4.8	20	2.0	ug/l	J
95-50-1	1,2-Dichlorobenzene	ND	10	2.2	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	2.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	3.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	50	2.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	1.1	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.6	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	1.9	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	1.9	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	2.1	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	4.8	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-005R
Lab Sample ID: JB31444-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

VOA Full List + Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	50	2.3	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	1.5	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	3.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.1	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	1.9	ug/l	
100-41-4	Ethylbenzene	224	10	2.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	2.4	ug/l	
98-82-8	Isopropylbenzene	10.2	20	4.5	ug/l	J
99-87-6	p-Isopropyltoluene	ND	50	2.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.7	10	1.6	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	12.1	50	8.3	ug/l	J
74-95-3	Methylene bromide	ND	50	2.6	ug/l	
75-09-2	Methylene chloride	ND	20	7.0	ug/l	
91-20-3	Naphthalene	75.1	50	11	ug/l	
103-65-1	n-Propylbenzene	24.6	50	2.4	ug/l	J
100-42-5	Styrene	ND	50	2.1	ug/l	
75-65-0	Tert Butyl Alcohol	249	250	18	ug/l	J
994-05-8	tert-Amyl Methyl Ether	ND	50	2.7	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	50	2.7	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	2.4	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.1	ug/l	
127-18-4	Tetrachloroethene	ND	10	2.8	ug/l	
108-88-3	Toluene	2290 [a]	50	11	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	2.8	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.4	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.9	ug/l	
79-01-6	Trichloroethene	393	10	2.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	2.7	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	5.3	ug/l	
95-63-6	1,2,4-Trimethylbenzene	184	20	1.9	ug/l	
108-67-8	1,3,5-Trimethylbenzene	49.1	20	3.6	ug/l	
75-01-4	Vinyl chloride	ND	10	2.1	ug/l	
	m,p-Xylene	764	10	4.2	ug/l	
95-47-6	o-Xylene	376	10	2.4	ug/l	
1330-20-7	Xylene (total)	1140	10	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	100%	81-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-005R		
Lab Sample ID:	JB31444-1	**Date Sampled:**	03/13/13
Matrix:	AQ - Ground Water	**Date Received:**	03/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Calvert Citgo, Northeast, MD		

VOA Full List + Oxygenates

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	90%	89%	74-127%
2037-26-5	Toluene-D8	99%	101%	80-122%
460-00-4	4-Bromofluorobenzene	101%	104%	78-116%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

2235 Route 130, Dayton NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking # | Bottle Order Control #

Accutest Quote # | Accutest Job # JB31444

Client / Reporting Information

Company Name: REPSG, Inc.
Address: 6901 Kingsessing Ave. Fl 2
City: Philadelphia State: PA Zip: 19142
Project Contact: E-mail: jmanuel@repsg.com
Phone #: 215-729-3300
Sampler's Name: BM

Project Information

Project Name: Calvert Citgo
Street:
City: Northeast State: MD
Project #: 5977
Fax #: 215-729-1557
Client Purchase Order #: 7917

Requested Analysis

8260 ☒ BTEX ☐ MTBE ☐ | 624 ☐ TCL ☐ NAP ☐ 8260 ☐ TBA ☐ | 8270 ☐ ABN ☐ 625 ☐ TCL ☐ PAH ☐ PAL ☐ 8270 ☐ ABN ☐ 625 ☐ PPL ☐ PAH ☐ PAL ☐ | 8021 ☐ MTBE ☐ 602 ☐ NAP ☐ TBA ☐ | 624 ☐ PPL ☐ STARS ☐ MTBE ☐ +15 ☐ +10 ☐ | 625 ☐ PPL ☐ STARS ☐ +TICs ☐ PAH ☐ PAL ☐ | 8021 ☐ PNUS ☐ PALG ☐

All VOCs including Oxygenates

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	MeOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	EnCore	8260 BTEX MTBE	Comments
1	MW-005R		3/13/13	1600	BM	GW	3	3								X	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

LAB USE ONLY: 493

Turnaround Time (Business Days)

☐ Std. 15 Business Days — Approved By: / Date:
☐ 10 Day *RUSH*
☐ 5 Day *RUSH*
☐ 3 Day *EMERGENCY*
☐ 2 Day *EMERGENCY*
☐ 1 Day *EMERGENCY*
☐ Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

☐ Commercial "A"
☐ Commercial "B"
☐ NJ Reduced
☐ NJ Full
☐ Other _____
☐ FULL CLP
☐ NYASP Category A
☐ NYASP Category B
☐ State Forms
☐ EDD Format _____

Commercial "A" = Results Only

Comments / Remarks

Equis EDD

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received by:	Relinquished by:	Date Time:	Received by:
1	3/14 14:30	1	2	3/14/13 2030	2
Relinquished by: 3	Date Time:	Received by: 3	Relinquished by: 4	Date Time:	Received by: 4
Relinquished by: 5	Date Time:	Received by: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 1.0

JB31444: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB31444 **Client:** **Project:**

Date / Time Received: 3/14/2013 **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1/1); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB31444: Chain of Custody
Page 2 of 2

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

April 10, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1020036**
Purchase Order:	**7968**	Workorder ID:	**Drinking Water (04/02/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, April 03, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS York: 978 Loucks Mill Road, York, PA 17402 717-505-5280

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

SAMPLE SUMMARY

Workorder: 1020036 Drinking Water (04/02/13) Discard Date: 04/24/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1020036001	MW-001_20130402_N	Ground Water	4/2/13 13:20	4/3/13 21:30	Customer
1020036002	MW-001R_20130402_N	Ground Water	4/2/13 11:00	4/3/13 21:30	Customer
1020036003	MW-002_20130402_N	Ground Water	4/2/13 14:15	4/3/13 21:30	Customer
1020036004	MW-003_20130401_N	Ground Water	4/1/13 14:40	4/3/13 21:30	Customer
1020036005	MW-003R_20130401_N	Ground Water	4/1/13 14:15	4/3/13 21:30	Customer
1020036006	MW-005_20130402_N	Ground Water	4/2/13 11:35	4/3/13 21:30	Customer
1020036007	MW-005R_20130402_N	Ground Water	4/2/13 10:45	4/3/13 21:30	Customer
1020036008	MW-006_20130401_N	Ground Water	4/1/13 15:20	4/3/13 21:30	Customer
1020036009	MW-007_20130402_N	Ground Water	4/2/13 13:50	4/3/13 21:30	Customer
1020036010	MW-008_20130402_N	Ground Water	4/2/13 12:45	4/3/13 21:30	Customer
1020036011	MW-008D_20130401_N	Ground Water	4/1/13 15:10	4/3/13 21:30	Customer
1020036012	MP-001_20130402_N	Ground Water	4/2/13 13:35	4/3/13 21:30	Customer
1020036013	MP-002_20130402_N	Ground Water	4/2/13 10:20	4/3/13 21:30	Customer
1020036014	DUP-001_20130401_D	Ground Water	4/1/13 00:00	4/3/13 21:30	Customer
1020036015	Field Blank-001_20130401_FB	Ground Water	4/1/13 12:12	4/3/13 21:30	Customer
1020036016	Field Blank-002_20130402_FB	Ground Water	4/2/13 12:00	4/3/13 21:30	Customer
1020036017	Trip Blank-001_20130403_TB	Ground Water	4/3/13 21:30	4/3/13 21:30	Customer

Workorder Comments:

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

SAMPLE SUMMARY

Workorder: 1020036 Drinking Water (04/02/13) Discard Date: 04/24/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036001** Date Collected: 4/2/2013 13:20 Matrix: Ground Water

Sample ID: **MW-001_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		500	155	SW846 8260B			4/8/13 21:15	TMP	A
tert-Amyl methyl ether	ND	ug/L		50.0	10.0	SW846 8260B			4/8/13 21:15	TMP	A
tert-Amyl Alcohol	ND	ug/L		500	330	SW846 8260B			4/8/13 21:15	TMP	A
tert-Amyl Ethylether	ND	ug/L		50.0	14.5	SW846 8260B			4/8/13 21:15	TMP	A
Benzene	356	ug/L		50.0	11.5	SW846 8260B			4/8/13 21:15	TMP	A
Bromochloromethane	ND	ug/L		50.0	16.0	SW846 8260B			4/8/13 21:15	TMP	A
Bromodichloromethane	ND	ug/L		50.0	13.5	SW846 8260B			4/8/13 21:15	TMP	A
Bromoform	ND	ug/L		50.0	20.0	SW846 8260B			4/8/13 21:15	TMP	A
Bromomethane	ND	ug/L		50.0	19.5	SW846 8260B			4/8/13 21:15	TMP	A
2-Butanone	ND	ug/L		500	90.0	SW846 8260B			4/8/13 21:15	TMP	A
tert-Butyl Alcohol	313J	ug/L		500	110	SW846 8260B			4/8/13 21:15	TMP	A
Carbon Disulfide	ND	ug/L		50.0	11.5	SW846 8260B			4/8/13 21:15	TMP	A
Carbon Tetrachloride	ND	ug/L		50.0	15.5	SW846 8260B			4/8/13 21:15	TMP	A
Chlorobenzene	ND	ug/L		50.0	9.5	SW846 8260B			4/8/13 21:15	TMP	A
Chlorodibromomethane	ND	ug/L		50.0	22.5	SW846 8260B			4/8/13 21:15	TMP	A
Chloroethane	ND	ug/L		50.0	16.5	SW846 8260B			4/8/13 21:15	TMP	A
Chloroform	ND	ug/L		50.0	10.5	SW846 8260B			4/8/13 21:15	TMP	A
Chloromethane	ND	ug/L		50.0	15.5	SW846 8260B			4/8/13 21:15	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		350	75.0	SW846 8260B			4/8/13 21:15	TMP	A
1,2-Dibromoethane	ND	ug/L		50.0	14.0	SW846 8260B			4/8/13 21:15	TMP	A
Dichlorodifluoromethane	ND	ug/L		50.0	16.5	SW846 8260B			4/8/13 21:15	TMP	A
1,1-Dichloroethane	ND	ug/L		50.0	14.0	SW846 8260B			4/8/13 21:15	TMP	A
1,2-Dichloroethane	ND	ug/L		50.0	16.0	SW846 8260B			4/8/13 21:15	TMP	A
1,1-Dichloroethene	ND	ug/L		50.0	14.5	SW846 8260B			4/8/13 21:15	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		50.0	16.0	SW846 8260B			4/8/13 21:15	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		50.0	13.0	SW846 8260B			4/8/13 21:15	TMP	A
Dichlorofluoromethane	ND	ug/L		50.0	18.5	SW846 8260B			4/8/13 21:15	TMP	A
1,2-Dichloropropane	ND	ug/L		50.0	12.0	SW846 8260B			4/8/13 21:15	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		50.0	15.5	SW846 8260B			4/8/13 21:15	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		50.0	14.5	SW846 8260B			4/8/13 21:15	TMP	A
Diisopropyl ether	ND	ug/L		50.0	12.5	SW846 8260B			4/8/13 21:15	TMP	A
Ethyl tert-butyl ether	ND	ug/L		50.0	9.5	SW846 8260B			4/8/13 21:15	TMP	A
Ethylbenzene	2580	ug/L		50.0	17.0	SW846 8260B			4/8/13 21:15	TMP	A
2-Hexanone	ND	ug/L		250	65.0	SW846 8260B			4/8/13 21:15	TMP	A
Methyl t-Butyl Ether	ND	ug/L		50.0	16.5	SW846 8260B			4/8/13 21:15	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		250	75.0	SW846 8260B			4/8/13 21:15	TMP	A
Methylene Chloride	ND	ug/L		50.0	22.5	SW846 8260B			4/8/13 21:15	TMP	A
Styrene	ND	ug/L		50.0	12.0	SW846 8260B			4/8/13 21:15	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		50.0	17.0	SW846 8260B			4/8/13 21:15	TMP	A
Tetrachloroethene	ND	ug/L		50.0	17.5	SW846 8260B			4/8/13 21:15	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036001** Date Collected: 4/2/2013 13:20 Matrix: Ground Water

Sample ID: **MW-001_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	20600	ug/L		1000	230	SW846 8260B			4/10/13 04:21	DD	B
Total Xylenes	14600	ug/L		150	33.0	SW846 8260B			4/8/13 21:15	TMP	A
1,1,1-Trichloroethane	ND	ug/L		50.0	11.0	SW846 8260B			4/8/13 21:15	TMP	A
1,1,2-Trichloroethane	ND	ug/L		50.0	16.5	SW846 8260B			4/8/13 21:15	TMP	A
Trichloroethene	ND	ug/L		50.0	16.5	SW846 8260B			4/8/13 21:15	TMP	A
Vinyl Chloride	ND	ug/L		50.0	15.0	SW846 8260B			4/8/13 21:15	TMP	A
o-Xylene	4620	ug/L		50.0	16.5	SW846 8260B			4/8/13 21:15	TMP	A
mp-Xylene	10000	ug/L		100	26.0	SW846 8260B			4/8/13 21:15	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	92.1	%		62-133		SW846 8260B			4/8/13 21:15	TMP	A
4-Bromofluorobenzene (S)	88.5	%		79-114		SW846 8260B			4/8/13 21:15	TMP	A
Dibromofluoromethane (S)	84.8	%		78-116		SW846 8260B			4/8/13 21:15	TMP	A
Toluene-d8 (S)	90.8	%		76-127		SW846 8260B			4/8/13 21:15	TMP	A
1,2-Dichloroethane-d4 (S)	91.7	%		62-133		SW846 8260B			4/10/13 04:21	DD	B
4-Bromofluorobenzene (S)	80.8	%		79-114		SW846 8260B			4/10/13 04:21	DD	B
Dibromofluoromethane (S)	76.1	%	1	78-116		SW846 8260B			4/10/13 04:21	DD	B
Toluene-d8 (S)	83	%		76-127		SW846 8260B			4/10/13 04:21	DD	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036002** Date Collected: 4/2/2013 11:00 Matrix: Ground Water

Sample ID: **MW-001R_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			4/8/13 18:59	TMP	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			4/8/13 18:59	TMP	A
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			4/8/13 18:59	TMP	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 18:59	TMP	A
Benzene	2890	ug/L		250	57.5	SW846 8260B			4/10/13 04:38	DD	B
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 18:59	TMP	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 18:59	TMP	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 18:59	TMP	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 18:59	TMP	A
2-Butanone	106	ug/L		50.0	9.0	SW846 8260B			4/8/13 18:59	TMP	A
tert-Butyl Alcohol	230	ug/L		50.0	11.0	SW846 8260B			4/8/13 18:59	TMP	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 18:59	TMP	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 18:59	TMP	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 18:59	TMP	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 18:59	TMP	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 18:59	TMP	A
Chloroform	10.5	ug/L		5.0	1.1	SW846 8260B			4/8/13 18:59	TMP	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 18:59	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			4/8/13 18:59	TMP	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 18:59	TMP	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 18:59	TMP	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 18:59	TMP	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 18:59	TMP	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 18:59	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 18:59	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 18:59	TMP	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			4/8/13 18:59	TMP	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 18:59	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 18:59	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 18:59	TMP	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 18:59	TMP	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 18:59	TMP	A
Ethylbenzene	1390	ug/L		250	85.0	SW846 8260B			4/10/13 04:38	DD	B
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			4/8/13 18:59	TMP	A
Methyl t-Butyl Ether	15.6	ug/L		5.0	1.7	SW846 8260B			4/8/13 18:59	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			4/8/13 18:59	TMP	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 18:59	TMP	A
Styrene	15.2	ug/L		5.0	1.2	SW846 8260B			4/8/13 18:59	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 18:59	TMP	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			4/8/13 18:59	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036002** Date Collected: 4/2/2013 11:00 Matrix: Ground Water

Sample ID: **MW-001R_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	14800	ug/L		250	57.5	SW846 8260B			4/10/13 04:38	DD	B
Total Xylenes	7570	ug/L		750	165	SW846 8260B			4/10/13 04:38	DD	B
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 18:59	TMP	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 18:59	TMP	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 18:59	TMP	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 18:59	TMP	A
o-Xylene	2300	ug/L		250	82.5	SW846 8260B			4/10/13 04:38	DD	B
mp-Xylene	5260	ug/L		500	130	SW846 8260B			4/10/13 04:38	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93.8	%		62-133		SW846 8260B			4/8/13 18:59	TMP	A
4-Bromofluorobenzene (S)	85.7	%		79-114		SW846 8260B			4/8/13 18:59	TMP	A
Dibromofluoromethane (S)	83.6	%		78-116		SW846 8260B			4/8/13 18:59	TMP	A
Toluene-d8 (S)	90.1	%		76-127		SW846 8260B			4/8/13 18:59	TMP	A
1,2-Dichloroethane-d4 (S)	92	%		62-133		SW846 8260B			4/10/13 04:38	DD	B
4-Bromofluorobenzene (S)	85.1	%		79-114		SW846 8260B			4/10/13 04:38	DD	B
Dibromofluoromethane (S)	76.7	%	2	78-116		SW846 8260B			4/10/13 04:38	DD	B
Toluene-d8 (S)	82.8	%		76-127		SW846 8260B			4/10/13 04:38	DD	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036003** Date Collected: 4/2/2013 14:15 Matrix: Ground Water

Sample ID: **MW-002_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			4/6/13 07:15	DD	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/6/13 07:15	DD	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/6/13 07:15	DD	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/6/13 07:15	DD	A
Benzene	37.2	ug/L		1.0	0.23	SW846 8260B			4/6/13 07:15	DD	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/6/13 07:15	DD	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/6/13 07:15	DD	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/6/13 07:15	DD	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/6/13 07:15	DD	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/6/13 07:15	DD	A
tert-Butyl Alcohol	19.0	ug/L		10.0	2.2	SW846 8260B			4/6/13 07:15	DD	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/6/13 07:15	DD	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/6/13 07:15	DD	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/6/13 07:15	DD	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/6/13 07:15	DD	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/6/13 07:15	DD	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/6/13 07:15	DD	A
Chloromethane	1.6	ug/L		1.0	0.31	SW846 8260B			4/6/13 07:15	DD	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/6/13 07:15	DD	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/6/13 07:15	DD	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/6/13 07:15	DD	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/6/13 07:15	DD	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/6/13 07:15	DD	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/6/13 07:15	DD	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/6/13 07:15	DD	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/6/13 07:15	DD	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/6/13 07:15	DD	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/6/13 07:15	DD	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/6/13 07:15	DD	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/6/13 07:15	DD	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/6/13 07:15	DD	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/6/13 07:15	DD	A
Ethylbenzene	0.48J	ug/L		1.0	0.34	SW846 8260B			4/6/13 07:15	DD	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/6/13 07:15	DD	A
Methyl t-Butyl Ether	17.9	ug/L		1.0	0.33	SW846 8260B			4/6/13 07:15	DD	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/6/13 07:15	DD	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/6/13 07:15	DD	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/6/13 07:15	DD	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/6/13 07:15	DD	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/6/13 07:15	DD	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036003** Date Collected: 4/2/2013 14:15 Matrix: Ground Water

Sample ID: **MW-002_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	3.3	ug/L		1.0	0.23	SW846 8260B			4/6/13 07:15	DD	A
Total Xylenes	3.8	ug/L		3.0	0.66	SW846 8260B			4/6/13 07:15	DD	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/6/13 07:15	DD	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/6/13 07:15	DD	A
Trichloroethene	1.2	ug/L		1.0	0.33	SW846 8260B			4/6/13 07:15	DD	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/6/13 07:15	DD	A
o-Xylene	1.7	ug/L		1.0	0.33	SW846 8260B			4/6/13 07:15	DD	A
mp-Xylene	2.1	ug/L		2.0	0.52	SW846 8260B			4/6/13 07:15	DD	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	89.8	%		62-133		SW846 8260B			4/6/13 07:15	DD	A
4-Bromofluorobenzene (S)	104	%		79-114		SW846 8260B			4/6/13 07:15	DD	A
Dibromofluoromethane (S)	96.9	%		78-116		SW846 8260B			4/6/13 07:15	DD	A
Toluene-d8 (S)	106	%		76-127		SW846 8260B			4/6/13 07:15	DD	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036004** Date Collected: 4/1/2013 14:40 Matrix: Ground Water

Sample ID: **MW-003_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			4/8/13 21:32	TMP	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			4/8/13 21:32	TMP	A
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			4/8/13 21:32	TMP	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 21:32	TMP	A
Benzene	44.2	ug/L		5.0	1.2	SW846 8260B			4/8/13 21:32	TMP	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 21:32	TMP	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 21:32	TMP	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 21:32	TMP	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 21:32	TMP	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			4/8/13 21:32	TMP	A
tert-Butyl Alcohol	381	ug/L		50.0	11.0	SW846 8260B			4/8/13 21:32	TMP	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 21:32	TMP	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 21:32	TMP	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 21:32	TMP	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 21:32	TMP	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 21:32	TMP	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 21:32	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			4/8/13 21:32	TMP	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 21:32	TMP	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 21:32	TMP	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 21:32	TMP	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 21:32	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 21:32	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 21:32	TMP	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			4/8/13 21:32	TMP	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 21:32	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 21:32	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 21:32	TMP	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 21:32	TMP	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 21:32	TMP	A
Ethylbenzene	637	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			4/8/13 21:32	TMP	A
Methyl t-Butyl Ether	5.9	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			4/8/13 21:32	TMP	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 21:32	TMP	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 21:32	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			4/8/13 21:32	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036004** Date Collected: 4/1/2013 14:40 Matrix: Ground Water

Sample ID: **MW-003_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	790	ug/L		5.0	1.2	SW846 8260B			4/8/13 21:32	TMP	A
Total Xylenes	2900	ug/L		150	33.0	SW846 8260B			4/10/13 04:55	DD	B
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 21:32	TMP	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 21:32	TMP	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 21:32	TMP	A
o-Xylene	899	ug/L		50.0	16.5	SW846 8260B			4/10/13 04:55	DD	B
mp-Xylene	2000	ug/L		100	26.0	SW846 8260B			4/10/13 04:55	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93	%		62-133		SW846 8260B			4/8/13 21:32	TMP	A
4-Bromofluorobenzene (S)	86.4	%		79-114		SW846 8260B			4/8/13 21:32	TMP	A
Dibromofluoromethane (S)	82	%		78-116		SW846 8260B			4/8/13 21:32	TMP	A
Toluene-d8 (S)	92.4	%		76-127		SW846 8260B			4/8/13 21:32	TMP	A
1,2-Dichloroethane-d4 (S)	91.1	%		62-133		SW846 8260B			4/10/13 04:55	DD	B
4-Bromofluorobenzene (S)	84.6	%		79-114		SW846 8260B			4/10/13 04:55	DD	B
Dibromofluoromethane (S)	75.6	%	3	78-116		SW846 8260B			4/10/13 04:55	DD	B
Toluene-d8 (S)	85.5	%		76-127		SW846 8260B			4/10/13 04:55	DD	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036005** Date Collected: 4/1/2013 14:15 Matrix: Ground Water

Sample ID: **MW-003R_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			4/8/13 22:06	TMP	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/8/13 22:06	TMP	A
tert-Amyl Alcohol	142	ug/L		10.0	6.6	SW846 8260B			4/8/13 22:06	TMP	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 22:06	TMP	A
Benzene	85.5	ug/L		1.0	0.23	SW846 8260B			4/8/13 22:06	TMP	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 22:06	TMP	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/8/13 22:06	TMP	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/8/13 22:06	TMP	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/8/13 22:06	TMP	A
2-Butanone	43.2	ug/L		10.0	1.8	SW846 8260B			4/8/13 22:06	TMP	A
tert-Butyl Alcohol	402	ug/L		10.0	2.2	SW846 8260B			4/8/13 22:06	TMP	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 22:06	TMP	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 22:06	TMP	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 22:06	TMP	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 22:06	TMP	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 22:06	TMP	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/8/13 22:06	TMP	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 22:06	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/8/13 22:06	TMP	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 22:06	TMP	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 22:06	TMP	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 22:06	TMP	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 22:06	TMP	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 22:06	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 22:06	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/8/13 22:06	TMP	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/8/13 22:06	TMP	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 22:06	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 22:06	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 22:06	TMP	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/8/13 22:06	TMP	A
Ethyl tert-butyl ether	6.1	ug/L		1.0	0.19	SW846 8260B			4/8/13 22:06	TMP	A
Ethylbenzene	24.0	ug/L		1.0	0.34	SW846 8260B			4/8/13 22:06	TMP	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 22:06	TMP	A
Methyl t-Butyl Ether	13.0	ug/L		1.0	0.33	SW846 8260B			4/8/13 22:06	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 22:06	TMP	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 22:06	TMP	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 22:06	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 22:06	TMP	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/8/13 22:06	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036005** Date Collected: 4/1/2013 14:15 Matrix: Ground Water

Sample ID: **MW-003R_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	198	ug/L		1.0	0.23	SW846 8260B			4/8/13 22:06	TMP	A
Total Xylenes	425	ug/L		3.0	0.66	SW846 8260B			4/8/13 22:06	TMP	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/8/13 22:06	TMP	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 22:06	TMP	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 22:06	TMP	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/8/13 22:06	TMP	A
o-Xylene	145	ug/L		1.0	0.33	SW846 8260B			4/8/13 22:06	TMP	A
mp-Xylene	280	ug/L		2.0	0.52	SW846 8260B			4/8/13 22:06	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93.9	%		62-133		SW846 8260B			4/8/13 22:06	TMP	A
4-Bromofluorobenzene (S)	85.4	%		79-114		SW846 8260B			4/8/13 22:06	TMP	A
Dibromofluoromethane (S)	82.3	%		78-116		SW846 8260B			4/8/13 22:06	TMP	A
Toluene-d8 (S)	92.1	%		76-127		SW846 8260B			4/8/13 22:06	TMP	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036006** Date Collected: 4/2/2013 11:35 Matrix: Ground Water

Sample ID: **MW-005_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		500	155	SW846 8260B			4/10/13 05:12	DD	B
tert-Amyl methyl ether	ND	ug/L		50.0	10.0	SW846 8260B			4/10/13 05:12	DD	B
tert-Amyl Alcohol	ND	ug/L		500	330	SW846 8260B			4/10/13 05:12	DD	B
tert-Amyl Ethylether	ND	ug/L		50.0	14.5	SW846 8260B			4/10/13 05:12	DD	B
Benzene	4620	ug/L		50.0	11.5	SW846 8260B			4/10/13 05:12	DD	B
Bromochloromethane	ND	ug/L		50.0	16.0	SW846 8260B			4/10/13 05:12	DD	B
Bromodichloromethane	ND	ug/L		50.0	13.5	SW846 8260B			4/10/13 05:12	DD	B
Bromoform	ND	ug/L		50.0	20.0	SW846 8260B			4/10/13 05:12	DD	B
Bromomethane	ND	ug/L		50.0	19.5	SW846 8260B			4/10/13 05:12	DD	B
2-Butanone	ND	ug/L		500	90.0	SW846 8260B			4/10/13 05:12	DD	B
tert-Butyl Alcohol	991	ug/L		500	110	SW846 8260B			4/10/13 05:12	DD	B
Carbon Disulfide	ND	ug/L		50.0	11.5	SW846 8260B			4/10/13 05:12	DD	B
Carbon Tetrachloride	ND	ug/L		50.0	15.5	SW846 8260B			4/10/13 05:12	DD	B
Chlorobenzene	ND	ug/L		50.0	9.5	SW846 8260B			4/10/13 05:12	DD	B
Chlorodibromomethane	ND	ug/L		50.0	22.5	SW846 8260B			4/10/13 05:12	DD	B
Chloroethane	ND	ug/L		50.0	16.5	SW846 8260B			4/10/13 05:12	DD	B
Chloroform	ND	ug/L		50.0	10.5	SW846 8260B			4/10/13 05:12	DD	B
Chloromethane	ND	ug/L		50.0	15.5	SW846 8260B			4/10/13 05:12	DD	B
1,2-Dibromo-3-chloropropane	ND	ug/L		350	75.0	SW846 8260B			4/10/13 05:12	DD	B
1,2-Dibromoethane	ND	ug/L		50.0	14.0	SW846 8260B			4/10/13 05:12	DD	B
Dichlorodifluoromethane	ND	ug/L		50.0	16.5	SW846 8260B			4/10/13 05:12	DD	B
1,1-Dichloroethane	ND	ug/L		50.0	14.0	SW846 8260B			4/10/13 05:12	DD	B
1,2-Dichloroethane	ND	ug/L		50.0	16.0	SW846 8260B			4/10/13 05:12	DD	B
1,1-Dichloroethene	ND	ug/L		50.0	14.5	SW846 8260B			4/10/13 05:12	DD	B
cis-1,2-Dichloroethene	ND	ug/L		50.0	16.0	SW846 8260B			4/10/13 05:12	DD	B
trans-1,2-Dichloroethene	ND	ug/L		50.0	13.0	SW846 8260B			4/10/13 05:12	DD	B
Dichlorofluoromethane	ND	ug/L		50.0	18.5	SW846 8260B			4/10/13 05:12	DD	B
1,2-Dichloropropane	ND	ug/L		50.0	12.0	SW846 8260B			4/10/13 05:12	DD	B
cis-1,3-Dichloropropene	ND	ug/L		50.0	15.5	SW846 8260B			4/10/13 05:12	DD	B
trans-1,3-Dichloropropene	ND	ug/L		50.0	14.5	SW846 8260B			4/10/13 05:12	DD	B
Diisopropyl ether	ND	ug/L		50.0	12.5	SW846 8260B			4/10/13 05:12	DD	B
Ethyl tert-butyl ether	ND	ug/L		50.0	9.5	SW846 8260B			4/10/13 05:12	DD	B
Ethylbenzene	285	ug/L		50.0	17.0	SW846 8260B			4/10/13 05:12	DD	B
2-Hexanone	ND	ug/L		250	65.0	SW846 8260B			4/10/13 05:12	DD	B
Methyl t-Butyl Ether	ND	ug/L		50.0	16.5	SW846 8260B			4/10/13 05:12	DD	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		250	75.0	SW846 8260B			4/10/13 05:12	DD	B
Methylene Chloride	ND	ug/L		50.0	22.5	SW846 8260B			4/10/13 05:12	DD	B
Styrene	ND	ug/L		50.0	12.0	SW846 8260B			4/10/13 05:12	DD	B
1,1,2,2-Tetrachloroethane	ND	ug/L		50.0	17.0	SW846 8260B			4/10/13 05:12	DD	B
Tetrachloroethene	ND	ug/L		50.0	17.5	SW846 8260B			4/10/13 05:12	DD	B

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036006** Date Collected: 4/2/2013 11:35 Matrix: Ground Water

Sample ID: **MW-005_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	55.5	ug/L		50.0	11.5	SW846 8260B			4/10/13 05:12	DD	B
Total Xylenes	731	ug/L		150	33.0	SW846 8260B			4/10/13 05:12	DD	B
1,1,1-Trichloroethane	ND	ug/L		50.0	11.0	SW846 8260B			4/10/13 05:12	DD	B
1,1,2-Trichloroethane	ND	ug/L		50.0	16.5	SW846 8260B			4/10/13 05:12	DD	B
Trichloroethene	ND	ug/L		50.0	16.5	SW846 8260B			4/10/13 05:12	DD	B
Vinyl Chloride	ND	ug/L		50.0	15.0	SW846 8260B			4/10/13 05:12	DD	B
o-Xylene	ND	ug/L		50.0	16.5	SW846 8260B			4/10/13 05:12	DD	B
mp-Xylene	731	ug/L		100	26.0	SW846 8260B			4/10/13 05:12	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	90.6	%		62-133		SW846 8260B			4/10/13 05:12	DD	B
4-Bromofluorobenzene (S)	81.3	%		79-114		SW846 8260B			4/10/13 05:12	DD	B
Dibromofluoromethane (S)	72.4	%	4	78-116		SW846 8260B			4/10/13 05:12	DD	B
Toluene-d8 (S)	84.3	%		76-127		SW846 8260B			4/10/13 05:12	DD	B

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036007** Date Collected: 4/2/2013 10:45 Matrix: Ground Water

Sample ID: **MW-005R_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			4/10/13 06:55	DD	B
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			4/10/13 06:55	DD	B
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			4/10/13 06:55	DD	B
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			4/10/13 06:55	DD	B
Benzene	178	ug/L		5.0	1.2	SW846 8260B			4/10/13 06:55	DD	B
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/10/13 06:55	DD	B
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			4/10/13 06:55	DD	B
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			4/10/13 06:55	DD	B
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			4/10/13 06:55	DD	B
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			4/10/13 06:55	DD	B
tert-Butyl Alcohol	1930	ug/L		50.0	11.0	SW846 8260B			4/10/13 06:55	DD	B
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			4/10/13 06:55	DD	B
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			4/10/13 06:55	DD	B
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			4/10/13 06:55	DD	B
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			4/10/13 06:55	DD	B
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			4/10/13 06:55	DD	B
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/10/13 06:55	DD	B
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			4/10/13 06:55	DD	B
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			4/10/13 06:55	DD	B
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			4/10/13 06:55	DD	B
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			4/10/13 06:55	DD	B
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			4/10/13 06:55	DD	B
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			4/10/13 06:55	DD	B
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			4/10/13 06:55	DD	B
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			4/10/13 06:55	DD	B
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			4/10/13 06:55	DD	B
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			4/10/13 06:55	DD	B
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			4/10/13 06:55	DD	B
Diisopropyl ether	30.6	ug/L		5.0	1.3	SW846 8260B			4/10/13 06:55	DD	B
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			4/10/13 06:55	DD	B
Ethylbenzene	ND	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			4/10/13 06:55	DD	B
Methyl t-Butyl Ether	146	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			4/10/13 06:55	DD	B
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			4/10/13 06:55	DD	B
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			4/10/13 06:55	DD	B
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			4/10/13 06:55	DD	B

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036007** Date Collected: 4/2/2013 10:45 Matrix: Ground Water

Sample ID: **MW-005R_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	10.8	ug/L		5.0	1.2	SW846 8260B			4/10/13 06:55	DD	B
Total Xylenes	33.0	ug/L		15.0	3.3	SW846 8260B			4/10/13 06:55	DD	B
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			4/10/13 06:55	DD	B
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			4/10/13 06:55	DD	B
o-Xylene	13.5	ug/L		5.0	1.7	SW846 8260B			4/10/13 06:55	DD	B
mp-Xylene	19.6	ug/L		10.0	2.6	SW846 8260B			4/10/13 06:55	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	90	%		62-133		SW846 8260B			4/10/13 06:55	DD	B
4-Bromofluorobenzene (S)	81.3	%		79-114		SW846 8260B			4/10/13 06:55	DD	B
Dibromofluoromethane (S)	71.3	%	5	78-116		SW846 8260B			4/10/13 06:55	DD	B
Toluene-d8 (S)	85.9	%		76-127		SW846 8260B			4/10/13 06:55	DD	B

Sample Comments:

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036008** Date Collected: 4/1/2013 15:20 Matrix: Ground Water

Sample ID: **MW-006_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			4/8/13 18:42	TMP	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/8/13 18:42	TMP	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/8/13 18:42	TMP	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 18:42	TMP	A
Benzene	3.8	ug/L		1.0	0.23	SW846 8260B			4/8/13 18:42	TMP	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 18:42	TMP	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/8/13 18:42	TMP	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/8/13 18:42	TMP	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/8/13 18:42	TMP	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/8/13 18:42	TMP	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			4/8/13 18:42	TMP	A
Carbon Disulfide	0.23J	ug/L		1.0	0.23	SW846 8260B			4/8/13 18:42	TMP	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 18:42	TMP	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 18:42	TMP	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 18:42	TMP	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 18:42	TMP	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/8/13 18:42	TMP	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 18:42	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/8/13 18:42	TMP	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 18:42	TMP	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 18:42	TMP	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 18:42	TMP	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 18:42	TMP	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 18:42	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 18:42	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/8/13 18:42	TMP	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/8/13 18:42	TMP	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 18:42	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 18:42	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 18:42	TMP	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/8/13 18:42	TMP	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 18:42	TMP	A
Ethylbenzene	21.7	ug/L		1.0	0.34	SW846 8260B			4/8/13 18:42	TMP	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 18:42	TMP	A
Methyl t-Butyl Ether	1.1	ug/L		1.0	0.33	SW846 8260B			4/8/13 18:42	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 18:42	TMP	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 18:42	TMP	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 18:42	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 18:42	TMP	A
Tetrachloroethene	0.48J	ug/L		1.0	0.35	SW846 8260B			4/8/13 18:42	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036008** Date Collected: 4/1/2013 15:20 Matrix: Ground Water

Sample ID: **MW-006_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	143	ug/L		1.0	0.23	SW846 8260B			4/8/13 18:42	TMP	A
Total Xylenes	176	ug/L		3.0	0.66	SW846 8260B			4/8/13 18:42	TMP	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/8/13 18:42	TMP	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 18:42	TMP	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 18:42	TMP	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/8/13 18:42	TMP	A
o-Xylene	56.1	ug/L		1.0	0.33	SW846 8260B			4/8/13 18:42	TMP	A
mp-Xylene	120	ug/L		2.0	0.52	SW846 8260B			4/8/13 18:42	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.3	%		62-133		SW846 8260B			4/8/13 18:42	TMP	A
4-Bromofluorobenzene (S)	86.3	%		79-114		SW846 8260B			4/8/13 18:42	TMP	A
Dibromofluoromethane (S)	87.8	%		78-116		SW846 8260B			4/8/13 18:42	TMP	A
Toluene-d8 (S)	89.9	%		76-127		SW846 8260B			4/8/13 18:42	TMP	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036009** Date Collected: 4/2/2013 13:50 Matrix: Ground Water

Sample ID: **MW-007_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			4/10/13 05:46	DD	B
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/10/13 05:46	DD	B
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/10/13 05:46	DD	B
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/10/13 05:46	DD	B
Benzene	3.2	ug/L		1.0	0.23	SW846 8260B			4/10/13 05:46	DD	B
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/10/13 05:46	DD	B
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/10/13 05:46	DD	B
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/10/13 05:46	DD	B
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/10/13 05:46	DD	B
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/10/13 05:46	DD	B
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			4/10/13 05:46	DD	B
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/10/13 05:46	DD	B
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/10/13 05:46	DD	B
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/10/13 05:46	DD	B
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/10/13 05:46	DD	B
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 05:46	DD	B
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/10/13 05:46	DD	B
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/10/13 05:46	DD	B
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/10/13 05:46	DD	B
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/10/13 05:46	DD	B
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 05:46	DD	B
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/10/13 05:46	DD	B
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/10/13 05:46	DD	B
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/10/13 05:46	DD	B
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/10/13 05:46	DD	B
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/10/13 05:46	DD	B
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/10/13 05:46	DD	B
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/10/13 05:46	DD	B
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/10/13 05:46	DD	B
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/10/13 05:46	DD	B
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/10/13 05:46	DD	B
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/10/13 05:46	DD	B
Ethylbenzene	17.7	ug/L		1.0	0.34	SW846 8260B			4/10/13 05:46	DD	B
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/10/13 05:46	DD	B
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 05:46	DD	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/10/13 05:46	DD	B
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/10/13 05:46	DD	B
Styrene	3.2	ug/L		1.0	0.24	SW846 8260B			4/10/13 05:46	DD	B
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/10/13 05:46	DD	B
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/10/13 05:46	DD	B

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036009** Date Collected: 4/2/2013 13:50 Matrix: Ground Water

Sample ID: **MW-007_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	97.3	ug/L		1.0	0.23	SW846 8260B			4/10/13 05:46	DD	B
Total Xylenes	212	ug/L		3.0	0.66	SW846 8260B			4/10/13 05:46	DD	B
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/10/13 05:46	DD	B
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 05:46	DD	B
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 05:46	DD	B
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/10/13 05:46	DD	B
o-Xylene	107	ug/L		1.0	0.33	SW846 8260B			4/10/13 05:46	DD	B
mp-Xylene	105	ug/L		2.0	0.52	SW846 8260B			4/10/13 05:46	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93	%		62-133		SW846 8260B			4/10/13 05:46	DD	B
4-Bromofluorobenzene (S)	80	%		79-114		SW846 8260B			4/10/13 05:46	DD	B
Dibromofluoromethane (S)	76.9	%	6	78-116		SW846 8260B			4/10/13 05:46	DD	B
Toluene-d8 (S)	83.5	%		76-127		SW846 8260B			4/10/13 05:46	DD	B

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036010** Date Collected: 4/2/2013 12:45 Matrix: Ground Water

Sample ID: **MW-008_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			4/10/13 06:21	DD	B
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/10/13 06:21	DD	B
tert-Amyl Alcohol	225	ug/L		10.0	6.6	SW846 8260B			4/10/13 06:21	DD	B
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/10/13 06:21	DD	B
Benzene	51.0	ug/L		1.0	0.23	SW846 8260B			4/10/13 06:21	DD	B
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/10/13 06:21	DD	B
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/10/13 06:21	DD	B
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/10/13 06:21	DD	B
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/10/13 06:21	DD	B
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/10/13 06:21	DD	B
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			4/10/13 06:21	DD	B
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/10/13 06:21	DD	B
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/10/13 06:21	DD	B
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/10/13 06:21	DD	B
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/10/13 06:21	DD	B
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 06:21	DD	B
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/10/13 06:21	DD	B
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/10/13 06:21	DD	B
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/10/13 06:21	DD	B
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/10/13 06:21	DD	B
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 06:21	DD	B
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/10/13 06:21	DD	B
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/10/13 06:21	DD	B
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/10/13 06:21	DD	B
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/10/13 06:21	DD	B
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/10/13 06:21	DD	B
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/10/13 06:21	DD	B
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/10/13 06:21	DD	B
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/10/13 06:21	DD	B
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/10/13 06:21	DD	B
Diisopropyl ether	4.5	ug/L		1.0	0.25	SW846 8260B			4/10/13 06:21	DD	B
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/10/13 06:21	DD	B
Ethylbenzene	6.2	ug/L		1.0	0.34	SW846 8260B			4/10/13 06:21	DD	B
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/10/13 06:21	DD	B
Methyl t-Butyl Ether	485	ug/L		10.0	3.3	SW846 8260B			4/8/13 19:50	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/10/13 06:21	DD	B
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/10/13 06:21	DD	B
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/10/13 06:21	DD	B
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/10/13 06:21	DD	B
Tetrachloroethene	1.7	ug/L		1.0	0.35	SW846 8260B			4/10/13 06:21	DD	B

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036010** Date Collected: 4/2/2013 12:45 Matrix: Ground Water

Sample ID: **MW-008_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	5.1	ug/L		1.0	0.23	SW846 8260B			4/10/13 06:21	DD	B
Total Xylenes	9.1	ug/L		3.0	0.66	SW846 8260B			4/10/13 06:21	DD	B
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/10/13 06:21	DD	B
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 06:21	DD	B
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/10/13 06:21	DD	B
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/10/13 06:21	DD	B
o-Xylene	3.3	ug/L		1.0	0.33	SW846 8260B			4/10/13 06:21	DD	B
mp-Xylene	5.8	ug/L		2.0	0.52	SW846 8260B			4/10/13 06:21	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.7	%		62-133		SW846 8260B			4/8/13 19:50	TMP	A
4-Bromofluorobenzene (S)	83.9	%		79-114		SW846 8260B			4/8/13 19:50	TMP	A
Dibromofluoromethane (S)	84.7	%		78-116		SW846 8260B			4/8/13 19:50	TMP	A
Toluene-d8 (S)	94.3	%		76-127		SW846 8260B			4/8/13 19:50	TMP	A
1,2-Dichloroethane-d4 (S)	85.7	%		62-133		SW846 8260B			4/10/13 06:21	DD	B
4-Bromofluorobenzene (S)	81.4	%		79-114		SW846 8260B			4/10/13 06:21	DD	B
Dibromofluoromethane (S)	69.3	%	7	78-116		SW846 8260B			4/10/13 06:21	DD	B
Toluene-d8 (S)	88.2	%		76-127		SW846 8260B			4/10/13 06:21	DD	B

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036011** Date Collected: 4/1/2013 15:10 Matrix: Ground Water

Sample ID: **MW-008D_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.3J	ug/L		10.0	3.1	SW846 8260B			4/8/13 20:07	TMP	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/8/13 20:07	TMP	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/8/13 20:07	TMP	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 20:07	TMP	A
Benzene	0.37J	ug/L		1.0	0.23	SW846 8260B			4/8/13 20:07	TMP	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 20:07	TMP	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/8/13 20:07	TMP	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/8/13 20:07	TMP	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/8/13 20:07	TMP	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/8/13 20:07	TMP	A
tert-Butyl Alcohol	2.3J	ug/L		10.0	2.2	SW846 8260B			4/8/13 20:07	TMP	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 20:07	TMP	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 20:07	TMP	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 20:07	TMP	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 20:07	TMP	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 20:07	TMP	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/8/13 20:07	TMP	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 20:07	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/8/13 20:07	TMP	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 20:07	TMP	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 20:07	TMP	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 20:07	TMP	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 20:07	TMP	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 20:07	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 20:07	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/8/13 20:07	TMP	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/8/13 20:07	TMP	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 20:07	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 20:07	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 20:07	TMP	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/8/13 20:07	TMP	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 20:07	TMP	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 20:07	TMP	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:07	TMP	A
Methyl t-Butyl Ether	0.49J	ug/L		1.0	0.33	SW846 8260B			4/8/13 20:07	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:07	TMP	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 20:07	TMP	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 20:07	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 20:07	TMP	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/8/13 20:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036011** Date Collected: 4/1/2013 15:10 Matrix: Ground Water

Sample ID: **MW-008D_20130401_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	0.80J	ug/L		1.0	0.23	SW846 8260B			4/8/13 20:07	TMP	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			4/8/13 20:07	TMP	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/8/13 20:07	TMP	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 20:07	TMP	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 20:07	TMP	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/8/13 20:07	TMP	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 20:07	TMP	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			4/8/13 20:07	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.3	%		62-133		SW846 8260B			4/8/13 20:07	TMP	A
4-Bromofluorobenzene (S)	89.7	%		79-114		SW846 8260B			4/8/13 20:07	TMP	A
Dibromofluoromethane (S)	85.5	%		78-116		SW846 8260B			4/8/13 20:07	TMP	A
Toluene-d8 (S)	90.1	%		76-127		SW846 8260B			4/8/13 20:07	TMP	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036012** Date Collected: 4/2/2013 13:35 Matrix: Ground Water

Sample ID: **MP-001_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	366	ug/L		50.0	15.5	SW846 8260B			4/8/13 20:24	TMP	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			4/8/13 20:24	TMP	A
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			4/8/13 20:24	TMP	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:24	TMP	A
Benzene	673	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:24	TMP	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:24	TMP	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:24	TMP	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 20:24	TMP	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 20:24	TMP	A
2-Butanone	9.9J	ug/L		50.0	9.0	SW846 8260B			4/8/13 20:24	TMP	A
tert-Butyl Alcohol	658	ug/L		50.0	11.0	SW846 8260B			4/8/13 20:24	TMP	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:24	TMP	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:24	TMP	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 20:24	TMP	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 20:24	TMP	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 20:24	TMP	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:24	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			4/8/13 20:24	TMP	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:24	TMP	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:24	TMP	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:24	TMP	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:24	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:24	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:24	TMP	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			4/8/13 20:24	TMP	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:24	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:24	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:24	TMP	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:24	TMP	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 20:24	TMP	A
Ethylbenzene	28.5	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			4/8/13 20:24	TMP	A
Methyl t-Butyl Ether	7.3	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			4/8/13 20:24	TMP	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 20:24	TMP	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:24	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			4/8/13 20:24	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036012** Date Collected: 4/2/2013 13:35 Matrix: Ground Water

Sample ID: **MP-001_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	2830	ug/L		100	23.0	SW846 8260B			4/10/13 06:04	DD	B
Total Xylenes	873	ug/L		15.0	3.3	SW846 8260B			4/8/13 20:24	TMP	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 20:24	TMP	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:24	TMP	A
o-Xylene	285	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:24	TMP	A
mp-Xylene	588	ug/L		10.0	2.6	SW846 8260B			4/8/13 20:24	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.4	%		62-133		SW846 8260B			4/8/13 20:24	TMP	A
4-Bromofluorobenzene (S)	84.7	%		79-114		SW846 8260B			4/8/13 20:24	TMP	A
Dibromofluoromethane (S)	82.5	%		78-116		SW846 8260B			4/8/13 20:24	TMP	A
Toluene-d8 (S)	88.7	%		76-127		SW846 8260B			4/8/13 20:24	TMP	A
1,2-Dichloroethane-d4 (S)	90.6	%		62-133		SW846 8260B			4/10/13 06:04	DD	B
4-Bromofluorobenzene (S)	86.2	%		79-114		SW846 8260B			4/10/13 06:04	DD	B
Dibromofluoromethane (S)	75.2	%	8	78-116		SW846 8260B			4/10/13 06:04	DD	B
Toluene-d8 (S)	83.1	%		76-127		SW846 8260B			4/10/13 06:04	DD	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036013** Date Collected: 4/2/2013 10:20 Matrix: Ground Water

Sample ID: **MP-002_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	53.1	ug/L		50.0	15.5	SW846 8260B			4/8/13 20:41	TMP	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			4/8/13 20:41	TMP	A
tert-Amyl Alcohol	951	ug/L		50.0	33.0	SW846 8260B			4/8/13 20:41	TMP	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:41	TMP	A
Benzene	400	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:41	TMP	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:41	TMP	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:41	TMP	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 20:41	TMP	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 20:41	TMP	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			4/8/13 20:41	TMP	A
tert-Butyl Alcohol	597	ug/L		50.0	11.0	SW846 8260B			4/8/13 20:41	TMP	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:41	TMP	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:41	TMP	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 20:41	TMP	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 20:41	TMP	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 20:41	TMP	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:41	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			4/8/13 20:41	TMP	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:41	TMP	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:41	TMP	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:41	TMP	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:41	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:41	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:41	TMP	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			4/8/13 20:41	TMP	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:41	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:41	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:41	TMP	A
Diisopropyl ether	10.7	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:41	TMP	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 20:41	TMP	A
Ethylbenzene	9.8	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			4/8/13 20:41	TMP	A
Methyl t-Butyl Ether	5.7	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			4/8/13 20:41	TMP	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 20:41	TMP	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:41	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			4/8/13 20:41	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036013** Date Collected: 4/2/2013 10:20 Matrix: Ground Water

Sample ID: **MP-002_20130402_N** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	2670	ug/L		100	23.0	SW846 8260B			4/10/13 05:29	DD	B
Total Xylenes	492	ug/L		15.0	3.3	SW846 8260B			4/8/13 20:41	TMP	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 20:41	TMP	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:41	TMP	A
o-Xylene	172	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:41	TMP	A
mp-Xylene	321	ug/L		10.0	2.6	SW846 8260B			4/8/13 20:41	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	92.6	%		62-133		SW846 8260B			4/8/13 20:41	TMP	A
4-Bromofluorobenzene (S)	92.3	%		79-114		SW846 8260B			4/8/13 20:41	TMP	A
Dibromofluoromethane (S)	85.2	%		78-116		SW846 8260B			4/8/13 20:41	TMP	A
Toluene-d8 (S)	92.5	%		76-127		SW846 8260B			4/8/13 20:41	TMP	A
1,2-Dichloroethane-d4 (S)	93	%		62-133		SW846 8260B			4/10/13 05:29	DD	B
4-Bromofluorobenzene (S)	83.3	%		79-114		SW846 8260B			4/10/13 05:29	DD	B
Dibromofluoromethane (S)	74.9	%	9	78-116		SW846 8260B			4/10/13 05:29	DD	B
Toluene-d8 (S)	86.7	%		76-127		SW846 8260B			4/10/13 05:29	DD	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036014** Date Collected: 4/1/2013 00:00 Matrix: Ground Water

Sample ID: **DUP-001_20130401_D** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			4/8/13 20:58	TMP	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			4/8/13 20:58	TMP	A
tert-Amyl Alcohol	ND	ug/L		50.0	33.0	SW846 8260B			4/8/13 20:58	TMP	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:58	TMP	A
Benzene	2760	ug/L		250	57.5	SW846 8260B			4/10/13 06:38	DD	B
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:58	TMP	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:58	TMP	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 20:58	TMP	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			4/8/13 20:58	TMP	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			4/8/13 20:58	TMP	A
tert-Butyl Alcohol	212	ug/L		50.0	11.0	SW846 8260B			4/8/13 20:58	TMP	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:58	TMP	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:58	TMP	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			4/8/13 20:58	TMP	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 20:58	TMP	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:58	TMP	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 20:58	TMP	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:58	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			4/8/13 20:58	TMP	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:58	TMP	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:58	TMP	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			4/8/13 20:58	TMP	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:58	TMP	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:58	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:58	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:58	TMP	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			4/8/13 20:58	TMP	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:58	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			4/8/13 20:58	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:58	TMP	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 20:58	TMP	A
Ethyl tert-butyl ether	4.8J	ug/L		5.0	0.95	SW846 8260B			4/8/13 20:58	TMP	A
Ethylbenzene	1410	ug/L		250	85.0	SW846 8260B			4/10/13 06:38	DD	B
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			4/8/13 20:58	TMP	A
Methyl t-Butyl Ether	14.8	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:58	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			4/8/13 20:58	TMP	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			4/8/13 20:58	TMP	A
Styrene	17.1	ug/L		5.0	1.2	SW846 8260B			4/8/13 20:58	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:58	TMP	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			4/8/13 20:58	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036014** Date Collected: 4/1/2013 00:00 Matrix: Ground Water

Sample ID: **DUP-001_20130401_D** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	14200	ug/L		250	57.5	SW846 8260B			4/10/13 06:38	DD	B
Total Xylenes	7520	ug/L		750	165	SW846 8260B			4/10/13 06:38	DD	B
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			4/8/13 20:58	TMP	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:58	TMP	A
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			4/8/13 20:58	TMP	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 20:58	TMP	A
o-Xylene	2270	ug/L		250	82.5	SW846 8260B			4/10/13 06:38	DD	B
mp-Xylene	5250	ug/L		500	130	SW846 8260B			4/10/13 06:38	DD	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93.6	%		62-133		SW846 8260B			4/8/13 20:58	TMP	A
4-Bromofluorobenzene (S)	87.5	%		79-114		SW846 8260B			4/8/13 20:58	TMP	A
Dibromofluoromethane (S)	79.9	%		78-116		SW846 8260B			4/8/13 20:58	TMP	A
Toluene-d8 (S)	91.1	%		76-127		SW846 8260B			4/8/13 20:58	TMP	A
1,2-Dichloroethane-d4 (S)	90.2	%		62-133		SW846 8260B			4/10/13 06:38	DD	B
4-Bromofluorobenzene (S)	83.6	%		79-114		SW846 8260B			4/10/13 06:38	DD	B
Dibromofluoromethane (S)	75.1	%	10	78-116		SW846 8260B			4/10/13 06:38	DD	B
Toluene-d8 (S)	84.3	%		76-127		SW846 8260B			4/10/13 06:38	DD	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036015** Date Collected: 4/1/2013 12:12 Matrix: Ground Water

Sample ID: **Field Blank-001_20130401_FB** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.7J	ug/L		10.0	3.1	SW846 8260B			4/8/13 16:09	TMP	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/8/13 16:09	TMP	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/8/13 16:09	TMP	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 16:09	TMP	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 16:09	TMP	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 16:09	TMP	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/8/13 16:09	TMP	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/8/13 16:09	TMP	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/8/13 16:09	TMP	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/8/13 16:09	TMP	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			4/8/13 16:09	TMP	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 16:09	TMP	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 16:09	TMP	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 16:09	TMP	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 16:09	TMP	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 16:09	TMP	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/8/13 16:09	TMP	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 16:09	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/8/13 16:09	TMP	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 16:09	TMP	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 16:09	TMP	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 16:09	TMP	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 16:09	TMP	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 16:09	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 16:09	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/8/13 16:09	TMP	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/8/13 16:09	TMP	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 16:09	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 16:09	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 16:09	TMP	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/8/13 16:09	TMP	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 16:09	TMP	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 16:09	TMP	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 16:09	TMP	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 16:09	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 16:09	TMP	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 16:09	TMP	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 16:09	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 16:09	TMP	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/8/13 16:09	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036015** Date Collected: 4/1/2013 12:12 Matrix: Ground Water

Sample ID: **Field Blank-001_20130401_FB** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 16:09	TMP	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			4/8/13 16:09	TMP	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/8/13 16:09	TMP	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 16:09	TMP	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 16:09	TMP	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/8/13 16:09	TMP	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 16:09	TMP	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			4/8/13 16:09	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.2	%		62-133		SW846 8260B			4/8/13 16:09	TMP	A
4-Bromofluorobenzene (S)	93.8	%		79-114		SW846 8260B			4/8/13 16:09	TMP	A
Dibromofluoromethane (S)	96.2	%		78-116		SW846 8260B			4/8/13 16:09	TMP	A
Toluene-d8 (S)	96	%		76-127		SW846 8260B			4/8/13 16:09	TMP	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036016** Date Collected: 4/2/2013 12:00 Matrix: Ground Water

Sample ID: **Field Blank-002_20130402_FB** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	6.6J	ug/L		10.0	3.1	SW846 8260B			4/8/13 15:52	TMP	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/8/13 15:52	TMP	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/8/13 15:52	TMP	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 15:52	TMP	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 15:52	TMP	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 15:52	TMP	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/8/13 15:52	TMP	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/8/13 15:52	TMP	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/8/13 15:52	TMP	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/8/13 15:52	TMP	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			4/8/13 15:52	TMP	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 15:52	TMP	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 15:52	TMP	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 15:52	TMP	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 15:52	TMP	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:52	TMP	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/8/13 15:52	TMP	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 15:52	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/8/13 15:52	TMP	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 15:52	TMP	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:52	TMP	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 15:52	TMP	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 15:52	TMP	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 15:52	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 15:52	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/8/13 15:52	TMP	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/8/13 15:52	TMP	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 15:52	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 15:52	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 15:52	TMP	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/8/13 15:52	TMP	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 15:52	TMP	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 15:52	TMP	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 15:52	TMP	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:52	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 15:52	TMP	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 15:52	TMP	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 15:52	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 15:52	TMP	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/8/13 15:52	TMP	A

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036016** Date Collected: 4/2/2013 12:00 Matrix: Ground Water

Sample ID: **Field Blank-002_20130402_FB** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 15:52	TMP	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			4/8/13 15:52	TMP	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/8/13 15:52	TMP	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:52	TMP	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:52	TMP	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/8/13 15:52	TMP	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:52	TMP	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			4/8/13 15:52	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.3	%		62-133		SW846 8260B			4/8/13 15:52	TMP	A
4-Bromofluorobenzene (S)	90.2	%		79-114		SW846 8260B			4/8/13 15:52	TMP	A
Dibromofluoromethane (S)	88.5	%		78-116		SW846 8260B			4/8/13 15:52	TMP	A
Toluene-d8 (S)	95.4	%		76-127		SW846 8260B			4/8/13 15:52	TMP	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036017** Date Collected: 4/3/2013 21:30 Matrix: Ground Water

Sample ID: **Trip Blank-001_20130403_TB** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	3.6J	ug/L		10.0	3.1	SW846 8260B			4/8/13 15:35	TMP	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			4/8/13 15:35	TMP	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			4/8/13 15:35	TMP	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 15:35	TMP	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 15:35	TMP	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 15:35	TMP	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			4/8/13 15:35	TMP	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			4/8/13 15:35	TMP	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			4/8/13 15:35	TMP	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			4/8/13 15:35	TMP	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			4/8/13 15:35	TMP	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 15:35	TMP	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 15:35	TMP	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 15:35	TMP	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 15:35	TMP	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:35	TMP	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			4/8/13 15:35	TMP	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 15:35	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			4/8/13 15:35	TMP	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 15:35	TMP	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:35	TMP	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			4/8/13 15:35	TMP	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 15:35	TMP	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 15:35	TMP	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			4/8/13 15:35	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			4/8/13 15:35	TMP	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			4/8/13 15:35	TMP	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 15:35	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			4/8/13 15:35	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			4/8/13 15:35	TMP	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			4/8/13 15:35	TMP	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			4/8/13 15:35	TMP	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 15:35	TMP	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			4/8/13 15:35	TMP	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:35	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			4/8/13 15:35	TMP	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			4/8/13 15:35	TMP	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			4/8/13 15:35	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			4/8/13 15:35	TMP	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			4/8/13 15:35	TMP	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1020036 Drinking Water (04/02/13)

Lab ID: **1020036017** Date Collected: 4/3/2013 21:30 Matrix: Ground Water

Sample ID: **Trip Blank-001_20130403_TB** Date Received: 4/3/2013 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			4/8/13 15:35	TMP	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			4/8/13 15:35	TMP	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			4/8/13 15:35	TMP	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:35	TMP	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:35	TMP	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			4/8/13 15:35	TMP	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			4/8/13 15:35	TMP	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			4/8/13 15:35	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	92.3	%		62-133		SW846 8260B			4/8/13 15:35	TMP	A
4-Bromofluorobenzene (S)	89.5	%		79-114		SW846 8260B			4/8/13 15:35	TMP	A
Dibromofluoromethane (S)	87.5	%		78-116		SW846 8260B			4/8/13 15:35	TMP	A
Toluene-d8 (S)	94.8	%		76-127		SW846 8260B			4/8/13 15:35	TMP	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1020036 Drinking Water (04/02/13)

PARAMETER QUALIFIERS\FLAGS

[1] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 76.1 and the control limits were 78 to 116. This result was reported at a dilution of 1000.

[2] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 76.7 and the control limits were 78 to 116. This result was reported at a dilution of 250.

[3] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 75.6 and the control limits were 78 to 116. This result was reported at a dilution of 50.

[4] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 72.4 and the control limits were 78 to 116. This result was reported at a dilution of 50.

[5] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 71.3 and the control limits were 78 to 116. This result was reported at a dilution of 5.

[6] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 76.9 and the control limits were 78 to 116. This result was reported at a dilution of 1.

[7] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 69.3 and the control limits were 78 to 116. This result was reported at a dilution of 1.

[8] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 75.2 and the control limits were 78 to 116. This result was reported at a dilution of 100.

[9] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 74.9 and the control limits were 78 to 116. This result was reported at a dilution of 100.

[10] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 75.1 and the control limits were 78 to 116. This result was reported at a dilution of 250.

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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2
Courier:
Tracking #:
* 1020036 *

Co. Name: REPSG, Inc.
Contact (Report to): Jmanuel@repsg.com Phone: (215)729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142

Bill to (If different than Report to): Same
PO#: 7968
Project Name/#: Calvert City/5977 ALSI Quote #:

TAT: Normal-Standard-~~TAT is 10-12 business days~~ 5-day Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:

Email? Jmanuel@repsg.com/bmacphail@repsg.com
Fax? No:

| Sample Description/Location (as it will appear on the lab report) | COC Comments | Sample Date | Military Time | g or c | **Matrix | Enter Number of Containers Per Analysis | | |

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Page 1 of 2
Courier:
Tracking #:
COC#

Co. Name: REPSG Inc.
Contact (Report to): samuel@repsg.com Phone: (215) 729-3820
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (if different than Report to): Same PO#: 7968
Project Name/#: Calvert Citgo/5977 ALSI Quote #:
TAT: Normal-Standard TAT is ~~10 Business days~~ 5-day Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:
Email? X .Y No.: samuel@repsg.com, bmaphail@repsg.com
Fax? .Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	Matrix	Container Type	Container Size	Preservative	Enter Number of Containers Per Analysis	ANALYSES/METHOD REQUESTED
1 MW-007		4/2/13	1350	G	GW	Voa	40ml	HCL	3	Analyze by 8260B Including Acid oxygenates
2 MW-008		4/2/13	1345	G	GW				3	
3 MW-008D		4/1/13	1510	G	GW				3	
4 MP-001		4/2/13	1335	G	GW				3	
5 MP-002		4/2/13	1030	G	GW				3	
6 Dup-001		4/1/13	—	G	GW				3	
7 Field Blank-001		4/1/13	1212	G	DI				3	
8 Field Blank-002		4/2/13	1200	G	DI				3	

SAMPLED BY (Please Print): M. Ramani
LOGGED BY (signature): DATE 4/4/13 #07
REVIEWED BY (signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	4-3	1240	2	4-3	1240
3	4-3		4	4/3	1722
5	4/3	2130	6	4/3	2132
7			8		
9			10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Forms?; State Samples Collected in?: MD, NJ, NY, PA; If yes, format type: Other; EDD Required?: EQUIS; DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Custody seals Present? Y N
(if present) Seals intact? Y N
Received on ice? Y N
COC/Labels complete/accurate? Y N
Headspace/Volatiles? Y N
Correct preservation? Y N
Correct sample volume? Y N
Correct containers? Y N
Container in good condition? Y N
Circle appropriate Y or N.

Receipt Information (complete if a Courier is Delivering)
Performed by:
Cooler Temp:
Therm. ID#:
No. of Coolers:
Notes:

* G=Grab; C=Composite
** Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
*** Container Type: AG=Amber Glass; CG=Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
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Page 3 of 3
Courier:
Tracking #:
1020036

Co. Name: REPSG, Inc.
Contact (Report to): Jmanuel@repsg.com Phone: (215)724-3200
Address: 6901 Kingsessing Ave. Phila, PA 19142

Bill to (if different than Report to): Same PO#: 7968
Project Name/#: Calvert Cliffs ALSI Quote #:
TAT: Normal-Standard TAT ~~10-15 business days~~. 5-day Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:
Email? Y N jmanuel@repsg.com; bmurphy@repsg.com
Fax? Y N

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	Matrix**	Container Type**	Container Size**	Preservative**	Enter Number of Containers Per Analysis	ANALYSES/METHOD REQUESTED
1	Trip Blank-001		4/1/13	-	G	WT	VOA	40mL	HCL		Includes Hg 8260 B
2											
3											
4											
5											
6											
7											
8											

SAMPLED BY (Please Print): M. Tammi
LOGGED BY (signature):
REVIEWED BY (signature):

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Formats? yes; State Samples Collected in? MD, NJ, NY, PA; If yes, format type: Other; EDDs Required? X EQUIS

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	4/3	1240	2	4/3	1240
3	4/3		4	4/3	
5	4/3	2130	6	4/3	2130
7			8		
9			10		

DOD Criteria Required?

Receipt Information (complete to Sample Receipt): Performed by: Verified by:
Cooler Temp: Therm. ID#: IR-15
No. of Coolers:
Notes:

Circle appropriate Y or N.	
Container in good condition?	Y N
Custody seals Present?	Y N
(if present) Seals intact?	Y N
Received on ice?	Y N
COC/Labels complete/accurate?	Y N
Headspace/Volatiles?	Y N
Correct preservation?	Y N
Correct sample volume?	Y N
Correct containers?	Y N

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
* G=Grab; C=Composite
** Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
*** Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
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October 25, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9994541**
Purchase Order:	**7469**	Workorder ID:	**Drinking Water (10/19/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, October 19, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

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CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 9994541 Drinking Water (10/19/12) Discard Date: 11/08/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9994541001	DW-001_20121019_N	Water	10/19/12 11:15	10/19/12 22:15	Bradley Musser
9994541002	DW-001A_20121019_N	Water	10/19/12 11:20	10/19/12 22:15	Bradley Musser
9994541003	DW-001B_20121019_N	Water	10/19/12 11:25	10/19/12 22:15	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541001** Date Collected: 10/19/2012 11:15 Matrix: Water

Sample ID: **DW-001_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 18:34	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 18:34	JAH	A
tert-Amyl methyl ether	0.32J	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:34	JAH	A
tert-Amyl Alcohol	2.8J	ug/L		5.0	1.6	EPA 524.2			10/24/12 18:34	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 18:34	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 18:34	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:34	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:34	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:34	JAH	A
2-Butanone	2.9	ug/L		2.5	1.3	EPA 524.2			10/24/12 18:34	JAH	A
tert-Butyl Alcohol	13.7J	ug/L		25.0	7.0	EPA 524.2			10/25/12 11:17	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:34	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:34	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 18:34	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:34	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:34	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 18:34	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:34	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 18:34	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:34	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:34	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 18:34	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:34	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 18:34	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:34	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:34	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:34	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 18:34	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 18:34	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:34	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
1,2-Dichloroethane	3.4	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:34	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541001** Date Collected: 10/19/2012 11:15 Matrix: Water

Sample ID: **DW-001_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:34	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:34	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:34	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:34	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:34	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 18:34	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 18:34	JAH	A
Diisopropyl ether	2.2	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:34	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 18:34	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:34	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 18:34	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:34	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:34	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 18:34	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 18:34	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:34	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 18:34	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:34	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 18:34	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:34	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 18:34	JAH	A
Methyl t-Butyl Ether	29.5	ug/L		2.5	0.45	EPA 524.2			10/25/12 11:17	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 18:34	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 18:34	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:34	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 18:34	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 18:34	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:34	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 18:34	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 18:34	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:34	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 18:34	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			10/24/12 18:34	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 18:34	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541001** Date Collected: 10/19/2012 11:15 Matrix: Water

Sample ID: **DW-001_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 18:34	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:34	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:34	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:34	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:34	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:34	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:34	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 18:34	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:34	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:34	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:34	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 18:34	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 18:34	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	97.8	%		70-130		EPA 524.2			10/24/12 18:34	JAH	A
4-Bromofluorobenzene (S)	86.3	%		70-130		EPA 524.2			10/24/12 18:34	JAH	A
1,2-Dichlorobenzene-d4 (S)	90.4	%		70-130		EPA 524.2			10/25/12 11:17	JAH	B
4-Bromofluorobenzene (S)	83.2	%		70-130		EPA 524.2			10/25/12 11:17	JAH	B

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541002** Date Collected: 10/19/2012 11:20 Matrix: Water

Sample ID: **DW-001A_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 19:00	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 19:00	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:00	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			10/24/12 19:00	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 19:00	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 19:00	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:00	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:00	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:00	JAH	A
2-Butanone	2.9	ug/L		2.5	1.3	EPA 524.2			10/24/12 19:00	JAH	A
tert-Butyl Alcohol	7.8	ug/L		5.0	1.4	EPA 524.2			10/24/12 19:00	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:00	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:00	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 19:00	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:00	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:00	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 19:00	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:00	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 19:00	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:00	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:00	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 19:00	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:00	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 19:00	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:00	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:00	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:00	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 19:00	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 19:00	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:00	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:00	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541002** Date Collected: 10/19/2012 11:20 Matrix: Water

Sample ID: **DW-001A_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:00	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:00	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:00	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:00	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:00	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 19:00	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 19:00	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:00	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 19:00	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:00	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 19:00	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:00	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:00	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 19:00	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 19:00	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:00	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 19:00	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:00	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 19:00	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:00	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 19:00	JAH	A
Methyl t-Butyl Ether	7.6	ug/L		0.50	0.090	EPA 524.2			10/24/12 19:00	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 19:00	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 19:00	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:00	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 19:00	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 19:00	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:00	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 19:00	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 19:00	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:00	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 19:00	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			10/24/12 19:00	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 19:00	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541002** Date Collected: 10/19/2012 11:20 Matrix: Water

Sample ID: **DW-001A_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 19:00	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:00	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:00	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:00	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:00	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:00	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:00	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 19:00	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:00	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:00	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:00	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 19:00	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 19:00	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.6	%		70-130		EPA 524.2			10/24/12 19:00	JAH	A
4-Bromofluorobenzene (S)	83.8	%		70-130		EPA 524.2			10/24/12 19:00	JAH	A

Sample Comments:

Anna G Milliken
Technical Manager

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541003** Date Collected: 10/19/2012 11:25 Matrix: Water

Sample ID: **DW-001B_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 19:27	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 19:27	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:27	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			10/24/12 19:27	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 19:27	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 19:27	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:27	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:27	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:27	JAH	A
2-Butanone	2.3J	ug/L		2.5	1.3	EPA 524.2			10/24/12 19:27	JAH	A
tert-Butyl Alcohol	4.8J	ug/L		5.0	1.4	EPA 524.2			10/24/12 19:27	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:27	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:27	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 19:27	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:27	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:27	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 19:27	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:27	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 19:27	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:27	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:27	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 19:27	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:27	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 19:27	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:27	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:27	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:27	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 19:27	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 19:27	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:27	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:27	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541003** Date Collected: 10/19/2012 11:25 Matrix: Water

Sample ID: **DW-001B_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:27	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:27	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:27	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:27	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:27	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 19:27	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 19:27	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:27	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 19:27	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:27	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 19:27	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:27	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 19:27	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 19:27	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 19:27	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 19:27	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 19:27	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:27	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 19:27	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:27	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 19:27	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			10/24/12 19:27	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 19:27	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 19:27	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:27	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 19:27	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 19:27	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:27	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 19:27	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 19:27	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 19:27	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 19:27	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			10/24/12 19:27	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 19:27	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994541 Drinking Water (10/19/12)

Lab ID: **9994541003** Date Collected: 10/19/2012 11:25 Matrix: Water

Sample ID: **DW-001B_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 19:27	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:27	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 19:27	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 19:27	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 19:27	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 19:27	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 19:27	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 19:27	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 19:27	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 19:27	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 19:27	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 19:27	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 19:27	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	95.9	%		70-130		EPA 524.2			10/24/12 19:27	JAH	A
4-Bromofluorobenzene (S)	88	%		70-130		EPA 524.2			10/24/12 19:27	JAH	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9994541 Drinking Water (10/19/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Isopropyl Alcohol. The % Recovery was reported as 61.9 and the control limits were 70 to 130.

CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.
Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430
Page 1 of 4
Courier:
Tracking #:
Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: (215) 729-3000
Address: 6901 Kingsessing Ave Phila, PA 19142
Bill to (If different than Report to): same
PO#: 7469
Project Name/#: Calvert Citgo / 5477
ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days - 5-day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? Y jmarvel@repsg.com; bmacneil@repsg.com
Fax? Y No.
Sample Description/Location (as it will appear on the lab report)
COC Comments
Sample Date
Military Time
G or C
Matrix
Container Type
Container Size
Preservative
ANALYSES/METHOD REQUESTED
Enter Number of Containers Per Analysis
Vacc's by SM4A Including Fuel Oxygenate
1 DW-001 Pre-Filtration 10-19-12 1115 G DW 2 HCl 40ml
2 DW-001A Mid-Filtration 10-19-12 1120 G DW 2 HCl 40ml
3 DW-001B Post-Filtration 10-19-12 1125 G DW 2 HCl 40ml
4
5
6
7
8
SAMPLED BY (Please Print): B Musser
LOGGED BY(signature):
REVIEWED BY(signature):
Relinquished By / Company Name
Date
Time
Received By / Company Name
Date
Time
1 10/19/12 1310
2 10-19 1310
3 10-19 1920
4 10/19 1920
5 10/19 2215
6 10/19 2215
7
8
9
10
Cooler Temp:
Therm. ID:
Received by:
No. of Coolers:
Notes:
Circle appropriate Y or N.
Container in good condition? Y N
COC/Labels complete/accurate? Y N
Headspace/Volatiles? Y N
Correct preservation? Y N
Correct sample volume? Y N
Correct containers? Y N
Received on ice? Y N
(if present) Seals intact? Y N
Custody seals Present? Y N
ALSI FIELD SERVICES
Pickup
Labor
Composite Sampling
Rental Equipment
Other:
Data Deliverables
Standard
CLP-like
NJ-Reduced
NJ-Full
SDWA Terms?
State Samples Collected In?
MD NJ NY PA
yes
If yes, format type:
Other
EDDs Required?
X
E&UIS
DOD Criteria Required?
* Grab; C=Composite
**Matrix: A=Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 6/07

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February 1, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**1009804**
Purchase Order:	**7784**	Workorder ID:	**Drinking Water (01/30/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 30, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

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CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 1009804 Drinking Water (01/30/13) Discard Date: 02/15/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1009804001	DW-001_20130130_N	Water	1/30/13 11:00	1/30/13 21:45	Bradley Musser
1009804002	DW-001A_20130130_N	Water	1/30/13 11:10	1/30/13 21:45	Bradley Musser
1009804003	DW-001B_20130130_N	Water	1/30/13 11:20	1/30/13 21:45	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804001** Date Collected: 1/30/2013 11:00 Matrix: Water

Sample ID: **DW-001_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	2.4J	ug/L		5.0	2.2	EPA 524.2			1/31/13 19:51	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 19:51	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 19:51	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/31/13 19:51	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 19:51	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/31/13 19:51	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 19:51	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 19:51	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 19:51	JAH	A
2-Butanone	8.4	ug/L		2.5	1.3	EPA 524.2			1/31/13 19:51	JAH	A
tert-Butyl Alcohol	9.0	ug/L		5.0	1.4	EPA 524.2			1/31/13 19:51	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 19:51	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 19:51	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 19:51	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 19:51	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 19:51	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 19:51	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 19:51	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/31/13 19:51	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 19:51	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 19:51	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 19:51	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 19:51	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 19:51	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 19:51	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 19:51	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 19:51	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/31/13 19:51	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/31/13 19:51	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 19:51	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
1,2-Dichloroethane	2.0	ug/L		0.50	0.15	EPA 524.2			1/31/13 19:51	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804001** Date Collected: 1/30/2013 11:00 Matrix: Water

Sample ID: **DW-001_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 19:51	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 19:51	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 19:51	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 19:51	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 19:51	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 19:51	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 19:51	JAH	A
Diisopropyl ether	1.5	ug/L		0.50	0.21	EPA 524.2			1/31/13 19:51	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/31/13 19:51	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 19:51	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 19:51	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 19:51	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 19:51	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/31/13 19:51	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/31/13 19:51	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 19:51	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/31/13 19:51	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 19:51	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 19:51	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 19:51	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 19:51	JAH	A
Methyl t-Butyl Ether	15.2	ug/L		0.50	0.090	EPA 524.2			1/31/13 19:51	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/31/13 19:51	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/31/13 19:51	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 19:51	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/31/13 19:51	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/31/13 19:51	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 19:51	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/31/13 19:51	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 19:51	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 19:51	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 19:51	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/31/13 19:51	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 19:51	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804001** Date Collected: 1/30/2013 11:00 Matrix: Water

Sample ID: **DW-001_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			1/31/13 19:51	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 19:51	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 19:51	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 19:51	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 19:51	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 19:51	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 19:51	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/31/13 19:51	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 19:51	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 19:51	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 19:51	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 19:51	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 19:51	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	76.3	%		70-130		EPA 524.2			1/31/13 19:51	JAH	A
4-Bromofluorobenzene (S)	80	%		70-130		EPA 524.2			1/31/13 19:51	JAH	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804002** Date Collected: 1/30/2013 11:10 Matrix: Water

Sample ID: **DW-001A_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	3.2J	ug/L		5.0	2.2	EPA 524.2			1/31/13 20:16	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 20:16	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:16	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/31/13 20:16	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 20:16	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/31/13 20:16	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:16	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:16	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:16	JAH	A
2-Butanone	8.4	ug/L		2.5	1.3	EPA 524.2			1/31/13 20:16	JAH	A
tert-Butyl Alcohol	8.7	ug/L		5.0	1.4	EPA 524.2			1/31/13 20:16	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:16	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:16	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 20:16	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:16	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:16	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 20:16	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:16	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/31/13 20:16	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:16	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:16	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 20:16	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:16	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 20:16	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:16	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:16	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:16	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/31/13 20:16	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/31/13 20:16	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:16	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:16	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804002** Date Collected: 1/30/2013 11:10 Matrix: Water

Sample ID: **DW-001A_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:16	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:16	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:16	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:16	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:16	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 20:16	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 20:16	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:16	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/31/13 20:16	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:16	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 20:16	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:16	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:16	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/31/13 20:16	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/31/13 20:16	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:16	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/31/13 20:16	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:16	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 20:16	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:16	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 20:16	JAH	A
Methyl t-Butyl Ether	6.5	ug/L		0.50	0.090	EPA 524.2			1/31/13 20:16	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/31/13 20:16	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/31/13 20:16	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:16	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/31/13 20:16	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/31/13 20:16	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:16	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/31/13 20:16	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 20:16	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:16	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 20:16	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/31/13 20:16	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 20:16	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804002** Date Collected: 1/30/2013 11:10 Matrix: Water

Sample ID: **DW-001A_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			1/31/13 20:16	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:16	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:16	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:16	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:16	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:16	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:16	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/31/13 20:16	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:16	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:16	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:16	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 20:16	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 20:16	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78.6	%		70-130		EPA 524.2			1/31/13 20:16	JAH	A
4-Bromofluorobenzene (S)	79.3	%		70-130		EPA 524.2			1/31/13 20:16	JAH	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804003** Date Collected: 1/30/2013 11:20 Matrix: Water

Sample ID: **DW-001B_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.0J	ug/L		5.0	2.2	EPA 524.2			1/31/13 20:42	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 20:42	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:42	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/31/13 20:42	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 20:42	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/31/13 20:42	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:42	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:42	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:42	JAH	A
2-Butanone	9.0	ug/L		2.5	1.3	EPA 524.2			1/31/13 20:42	JAH	A
tert-Butyl Alcohol	7.3	ug/L		5.0	1.4	EPA 524.2			1/31/13 20:42	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:42	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:42	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 20:42	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:42	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:42	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 20:42	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:42	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/31/13 20:42	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:42	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:42	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 20:42	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:42	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 20:42	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:42	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:42	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:42	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/31/13 20:42	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/31/13 20:42	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:42	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:42	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804003** Date Collected: 1/30/2013 11:20 Matrix: Water

Sample ID: **DW-001B_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:42	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:42	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:42	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:42	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:42	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 20:42	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 20:42	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:42	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/31/13 20:42	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:42	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 20:42	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:42	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 20:42	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/31/13 20:42	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/31/13 20:42	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 20:42	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/31/13 20:42	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:42	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 20:42	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:42	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 20:42	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			1/31/13 20:42	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/31/13 20:42	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/31/13 20:42	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:42	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/31/13 20:42	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/31/13 20:42	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:42	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/31/13 20:42	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 20:42	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 20:42	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 20:42	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/31/13 20:42	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 20:42	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009804 Drinking Water (01/30/13)

Lab ID: **1009804003** Date Collected: 1/30/2013 11:20 Matrix: Water

Sample ID: **DW-001B_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			1/31/13 20:42	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:42	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 20:42	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 20:42	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 20:42	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 20:42	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 20:42	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/31/13 20:42	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 20:42	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 20:42	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 20:42	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 20:42	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 20:42	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	77.6	%		70-130		EPA 524.2			1/31/13 20:42	JAH	A
4-Bromofluorobenzene (S)	82.1	%		70-130		EPA 524.2			1/31/13 20:42	JAH	A

Sample Comments:

Anna G Milliken
Technical Manager

Analytical Laboratory Services, Inc.
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
1009804

Co. Name: PEPSG, Inc.
Contact (Report to): Jason Mancil
Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142
PO#: 7784
Bill to (if different than Report to): Same
Project Name/#: Calvert City, KY 42029 ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5-day Rush-Subject to ALSI approval and surcharges. Date Required: Approved By:
Email? Y N jmancil@repsg.com/bmaupin@repsg.com
Fax? Y N #:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	"G or C	"Matrix	Enter Number of Containers Per Analysis
1	DW-001	Pre-Filtration	1/30/13	11:00	G	DW	2
2	DW-001A	Mid-Filtration	1/30/13	11:10	G	DW	2
3	DW-001B	Post-Filtration	1/30/13	11:20	G	DW	2
4							
5							
6							
7							
8							

"Container Type: VOA
"Container Size: 40mL
Preservative: HCl/ASC
ANALYSES/METHOD REQUESTED: Including Field Surrogate

Receipt Information (Completed by Sample Receiving)
Performed by: MC
Cooler Temp: 1°C
Therm. ID: TH-215
No. of Coolers:
Notes:

Circle appropriate Y or N.
Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Received on ice? Y N
COC/Labels complete/accurate? Y N
Container in good condition? Y N
Custody seals Present? Y N
(If present) Seals Intact? Y N

SAMPLED BY (Please Print): B. Musser
LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; If yes, format type: EQUIS
SDWA Forms?No: yes
State Samples Collected In? MD NJ NY PA Other
EDDs Required? If yes, format type:
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

	Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1		1/31/13	14:15	2	1/30	1417
3		1-30		4	1/30	1725
5		1/30	2145	6	1/30	2145
7				8		
9				10		

*G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Rev 9/07

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August 22, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9983226**
Purchase Order:	**7206**	Workorder ID:	**Calvert Citgo/5977**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, August 15, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

SAMPLE SUMMARY

Workorder: 9983226 Calvert Citgo/5977 Discard Date: 09/05/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9983226001	DW-004C	Water	8/14/12 10:40	8/15/12 22:50	Customer
9983226002	DW-004F	Water	8/14/12 10:30	8/15/12 22:50	Customer
9983226003	DW-004G	Water	8/14/12 10:20	8/15/12 22:50	Customer
9983226004	DW-004H	Water	8/14/12 10:10	8/15/12 22:50	Customer
9983226005	DUP	Water	8/13/12 00:00	8/15/12 22:50	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226001** Date Collected: 8/14/2012 10:40 Matrix: Water

Sample ID: **DW-004C** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			8/17/12 18:00	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 18:00	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:00	JAH	B
tert-Amyl Alcohol	115	ug/L		5.0	1.6	EPA 524.2			8/17/12 18:00	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:00	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/17/12 18:00	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:00	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:00	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:00	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			8/17/12 18:00	JAH	B
tert-Butyl Alcohol	3550	ug/L		250	70.0	EPA 524.2			8/20/12 20:44	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:00	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:00	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:00	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:00	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:00	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 18:00	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:00	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/17/12 18:00	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:00	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:00	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 18:00	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:00	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 18:00	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:00	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:00	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:00	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/17/12 18:00	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/17/12 18:00	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:00	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
1,2-Dichloroethane	7.5	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:00	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226001** Date Collected: 8/14/2012 10:40 Matrix: Water

Sample ID: **DW-004C** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:00	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:00	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:00	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:00	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:00	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:00	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 18:00	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:00	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/17/12 18:00	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:00	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 18:00	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:00	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:00	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/17/12 18:00	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/17/12 18:00	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:00	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/17/12 18:00	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:00	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 18:00	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:00	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 18:00	JAH	B
Methyl t-Butyl Ether	330	ug/L		25.0	4.5	EPA 524.2			8/20/12 20:44	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/17/12 18:00	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/17/12 18:00	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:00	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/17/12 18:00	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/17/12 18:00	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:00	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/17/12 18:00	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:00	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:00	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 18:00	JAH	B
Tetrahydrofuran	22.2	ug/L		2.5	0.81	EPA 524.2			8/17/12 18:00	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:00	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226001** Date Collected: 8/14/2012 10:40 Matrix: Water

Sample ID: **DW-004C** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/17/12 18:00	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:00	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:00	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:00	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:00	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:00	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:00	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/17/12 18:00	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:00	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:00	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:00	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:00	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 18:00	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	90.1	%		70-130		EPA 524.2			8/17/12 18:00	JAH	B
4-Bromofluorobenzene (S)	86.1	%		70-130		EPA 524.2			8/17/12 18:00	JAH	B
1,2-Dichlorobenzene-d4 (S)	86.9	%		70-130		EPA 524.2			8/20/12 20:44	JAH	B
4-Bromofluorobenzene (S)	84.8	%		70-130		EPA 524.2			8/20/12 20:44	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226002** Date Collected: 8/14/2012 10:30 Matrix: Water

Sample ID: **DW-004F** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	7.0	ug/L		5.0	2.2	EPA 524.2			8/17/12 18:26	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 18:26	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:26	JAH	B
tert-Amyl Alcohol	72.2	ug/L		5.0	1.6	EPA 524.2			8/17/12 18:26	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:26	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/17/12 18:26	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:26	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:26	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:26	JAH	B
2-Butanone	5.9	ug/L		2.5	1.3	EPA 524.2			8/17/12 18:26	JAH	B
tert-Butyl Alcohol	2340	ug/L		250	70.0	EPA 524.2			8/21/12 17:22	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:26	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:26	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:26	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:26	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:26	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 18:26	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:26	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/17/12 18:26	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:26	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:26	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 18:26	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:26	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 18:26	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:26	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:26	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:26	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/17/12 18:26	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/17/12 18:26	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:26	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
1,2-Dichloroethane	1.3	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:26	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226002** Date Collected: 8/14/2012 10:30 Matrix: Water

Sample ID: **DW-004F** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:26	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:26	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:26	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:26	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:26	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:26	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 18:26	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:26	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/17/12 18:26	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:26	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 18:26	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:26	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:26	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/17/12 18:26	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/17/12 18:26	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:26	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/17/12 18:26	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:26	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 18:26	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:26	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 18:26	JAH	B
Methyl t-Butyl Ether	85.3	ug/L		5.0	0.90	EPA 524.2			8/21/12 17:48	JAH	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/17/12 18:26	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/17/12 18:26	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:26	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/17/12 18:26	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/17/12 18:26	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:26	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/17/12 18:26	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:26	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:26	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 18:26	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			8/17/12 18:26	JAH	B
Toluene	0.17J	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:26	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226002** Date Collected: 8/14/2012 10:30 Matrix: Water

Sample ID: **DW-004F** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/17/12 18:26	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:26	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:26	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:26	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:26	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:26	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:26	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/17/12 18:26	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:26	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:26	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:26	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:26	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 18:26	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	87	%		70-130		EPA 524.2			8/17/12 18:26	JAH	B
4-Bromofluorobenzene (S)	86.7	%		70-130		EPA 524.2			8/17/12 18:26	JAH	B
1,2-Dichlorobenzene-d4 (S)	93.2	%		70-130		EPA 524.2			8/21/12 17:22	JAH	C
4-Bromofluorobenzene (S)	87.5	%		70-130		EPA 524.2			8/21/12 17:22	JAH	C
1,2-Dichlorobenzene-d4 (S)	79.8	%		70-130		EPA 524.2			8/21/12 17:48	JAH	C
4-Bromofluorobenzene (S)	80.9	%		70-130		EPA 524.2			8/21/12 17:48	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226003** Date Collected: 8/14/2012 10:20 Matrix: Water

Sample ID: **DW-004G** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			8/17/12 18:52	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 18:52	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:52	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			8/17/12 18:52	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:52	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/17/12 18:52	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:52	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:52	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:52	JAH	B
2-Butanone	3.0	ug/L		2.5	1.3	EPA 524.2			8/17/12 18:52	JAH	B
tert-Butyl Alcohol	723	ug/L		100	28.0	EPA 524.2			8/21/12 18:14	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:52	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:52	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:52	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:52	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:52	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 18:52	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:52	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/17/12 18:52	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:52	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:52	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 18:52	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:52	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 18:52	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:52	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:52	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:52	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/17/12 18:52	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/17/12 18:52	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:52	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:52	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226003** Date Collected: 8/14/2012 10:20 Matrix: Water

Sample ID: **DW-004G** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:52	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:52	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:52	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:52	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:52	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:52	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 18:52	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:52	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/17/12 18:52	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:52	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 18:52	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:52	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 18:52	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/17/12 18:52	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/17/12 18:52	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 18:52	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/17/12 18:52	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:52	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 18:52	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:52	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 18:52	JAH	B
Methyl t-Butyl Ether	0.20J	ug/L		0.50	0.090	EPA 524.2			8/17/12 18:52	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/17/12 18:52	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/17/12 18:52	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:52	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/17/12 18:52	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/17/12 18:52	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:52	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/17/12 18:52	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 18:52	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 18:52	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 18:52	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			8/17/12 18:52	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:52	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226003** Date Collected: 8/14/2012 10:20 Matrix: Water

Sample ID: **DW-004G** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/17/12 18:52	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:52	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 18:52	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 18:52	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 18:52	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 18:52	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 18:52	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/17/12 18:52	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 18:52	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 18:52	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 18:52	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 18:52	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 18:52	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	89.6	%		70-130		EPA 524.2			8/17/12 18:52	JAH	B
4-Bromofluorobenzene (S)	85.5	%		70-130		EPA 524.2			8/17/12 18:52	JAH	B
1,2-Dichlorobenzene-d4 (S)	92.1	%		70-130		EPA 524.2			8/21/12 18:14	JAH	C
4-Bromofluorobenzene (S)	84.7	%		70-130		EPA 524.2			8/21/12 18:14	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226004** Date Collected: 8/14/2012 10:10 Matrix: Water

Sample ID: **DW-004H** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	7.9	ug/L		5.0	2.2	EPA 524.2			8/21/12 16:55	JAH	C
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/21/12 16:55	JAH	C
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 16:55	JAH	C
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			8/21/12 16:55	JAH	C
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/21/12 16:55	JAH	C
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/21/12 16:55	JAH	C
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 16:55	JAH	C
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 16:55	JAH	C
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 16:55	JAH	C
2-Butanone	26.6	ug/L		2.5	1.3	EPA 524.2			8/21/12 16:55	JAH	C
tert-Butyl Alcohol	3.7J	ug/L		5.0	1.4	EPA 524.2			8/21/12 16:55	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 16:55	JAH	C
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 16:55	JAH	C
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/21/12 16:55	JAH	C
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 16:55	JAH	C
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 16:55	JAH	C
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/21/12 16:55	JAH	C
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 16:55	JAH	C
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/21/12 16:55	JAH	C
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 16:55	JAH	C
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 16:55	JAH	C
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/21/12 16:55	JAH	C
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 16:55	JAH	C
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/21/12 16:55	JAH	C
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 16:55	JAH	C
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 16:55	JAH	C
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 16:55	JAH	C
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/21/12 16:55	JAH	C
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/21/12 16:55	JAH	C
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 16:55	JAH	C
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
Dichlorodifluoromethane	ND	ug/L	3	0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 16:55	JAH	C
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226004** Date Collected: 8/14/2012 10:10 Matrix: Water

Sample ID: **DW-004H** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 16:55	JAH	C
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 16:55	JAH	C
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 16:55	JAH	C
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 16:55	JAH	C
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 16:55	JAH	C
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/21/12 16:55	JAH	C
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/21/12 16:55	JAH	C
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 16:55	JAH	C
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/21/12 16:55	JAH	C
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 16:55	JAH	C
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/21/12 16:55	JAH	C
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 16:55	JAH	C
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 16:55	JAH	C
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/21/12 16:55	JAH	C
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/21/12 16:55	JAH	C
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 16:55	JAH	C
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/21/12 16:55	JAH	C
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 16:55	JAH	C
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/21/12 16:55	JAH	C
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 16:55	JAH	C
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/21/12 16:55	JAH	C
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			8/21/12 16:55	JAH	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/21/12 16:55	JAH	C
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/21/12 16:55	JAH	C
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 16:55	JAH	C
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/21/12 16:55	JAH	C
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/21/12 16:55	JAH	C
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 16:55	JAH	C
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/21/12 16:55	JAH	C
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/21/12 16:55	JAH	C
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 16:55	JAH	C
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/21/12 16:55	JAH	C
Tetrahydrofuran	14.4	ug/L		2.5	0.81	EPA 524.2			8/21/12 16:55	JAH	C
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/21/12 16:55	JAH	C

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226004** Date Collected: 8/14/2012 10:10 Matrix: Water

Sample ID: **DW-004H** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/21/12 16:55	JAH	C
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 16:55	JAH	C
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 16:55	JAH	C
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 16:55	JAH	C
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 16:55	JAH	C
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 16:55	JAH	C
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 16:55	JAH	C
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/21/12 16:55	JAH	C
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 16:55	JAH	C
Vinyl Acetate	ND	ug/L	4	0.50	0.22	EPA 524.2			8/21/12 16:55	JAH	C
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 16:55	JAH	C
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/21/12 16:55	JAH	C
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/21/12 16:55	JAH	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	86.1	%		70-130		EPA 524.2			8/21/12 16:55	JAH	C
4-Bromofluorobenzene (S)	85.9	%		70-130		EPA 524.2			8/21/12 16:55	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226005** Date Collected: 8/13/2012 00:00 Matrix: Water

Sample ID: **DUP** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			8/17/12 19:45	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 19:45	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 19:45	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			8/17/12 19:45	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 19:45	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/17/12 19:45	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 19:45	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 19:45	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 19:45	JAH	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			8/17/12 19:45	JAH	A
tert-Butyl Alcohol	2.4J	ug/L		5.0	1.4	EPA 524.2			8/17/12 19:45	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 19:45	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 19:45	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 19:45	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 19:45	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 19:45	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 19:45	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 19:45	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/17/12 19:45	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 19:45	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 19:45	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 19:45	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 19:45	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 19:45	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 19:45	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 19:45	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 19:45	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/17/12 19:45	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/17/12 19:45	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 19:45	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
1,4-Dichlorobenzene	0.43J	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 19:45	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226005** Date Collected: 8/13/2012 00:00 Matrix: Water

Sample ID: **DUP** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 19:45	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 19:45	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 19:45	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 19:45	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 19:45	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 19:45	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 19:45	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 19:45	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/17/12 19:45	JAH	A
Ethyl Ether	1.0	ug/L		0.50	0.21	EPA 524.2			8/17/12 19:45	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 19:45	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 19:45	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 19:45	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/17/12 19:45	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/17/12 19:45	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 19:45	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/17/12 19:45	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 19:45	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 19:45	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 19:45	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 19:45	JAH	A
Methyl t-Butyl Ether	0.60	ug/L		0.50	0.090	EPA 524.2			8/17/12 19:45	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/17/12 19:45	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/17/12 19:45	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 19:45	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/17/12 19:45	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/17/12 19:45	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 19:45	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/17/12 19:45	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 19:45	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 19:45	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 19:45	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			8/17/12 19:45	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 19:45	JAH	A

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ANALYTICAL RESULTS

Workorder: 9983226 Calvert Citgo/5977

Lab ID: **9983226005** Date Collected: 8/13/2012 00:00 Matrix: Water

Sample ID: **DUP** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/17/12 19:45	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 19:45	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 19:45	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 19:45	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 19:45	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 19:45	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 19:45	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/17/12 19:45	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 19:45	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 19:45	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 19:45	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 19:45	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 19:45	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	84.9	%		70-130		EPA 524.2			8/17/12 19:45	JAH	A
4-Bromofluorobenzene (S)	82.4	%		70-130		EPA 524.2			8/17/12 19:45	JAH	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

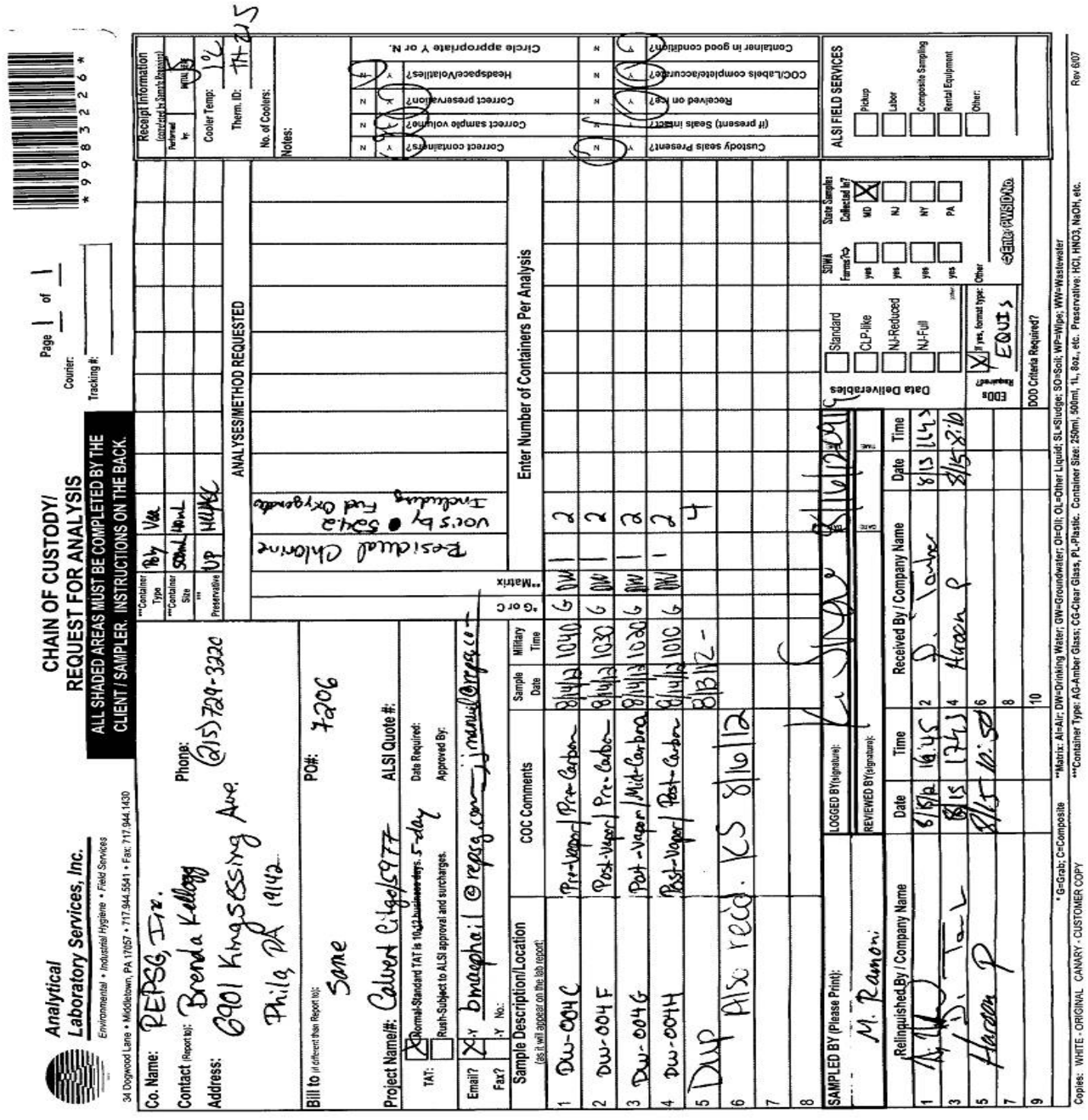
Workorder: 9983226 Calvert Citgo/5977

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 66.1 and the control limits were 70 to 130.

[3] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 69.5 and the control limits were 70 to 130.

[4] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Vinyl Acetate. The % Recovery was reported as 67.9 and the control limits were 70 to 130.


CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.
Analytical Laboratory Services, Inc.
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Courier:
Tracking #:
Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila PA 19142
Bill to (if different than Report to): Same
PO#: 7206
Project Name/#: Calvert Cliffs/5977
ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5-day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? bmaghelli@repsg.com; jmanuel@repsg.com
Fax? Y / N:
Sample Description/Location (as it will appear on the lab report)
COC Comments
Sample Date
Military Time
G or C
"Matrix"
***Container Type
***Container Size
Preservative
ANALYSES/METHOD REQUESTED
Residual Chlorine
VOC's by SW846 Including Fuel Oxygenates
Enter Number of Containers Per Analysis
1 DW-004C Pre-Vapor/Pre-Carbon 8/14/12 1040 G DW 1 2
2 DW-004F Post-Vapor/Pre-Carbon 8/14/12 1030 G DW 1 2
3 DW-004G Post-Vapor/Mid-Carbon 8/14/12 1020 G DW 1 2
4 DW-004H Post-Vapor/Post-Carbon 8/14/12 1010 G DW 1 4
5 DUP 8/8/12 - 4
6 Also recd. KS 8/16/12
7
8
SAMPLED BY (Please Print): M. Ramon
LOGGED BY (signature):
REVIEWED BY (signature):
Relinquished By / Company Name
Date
Time
Received By / Company Name
Date
Time
1 8/15/12 16:45 2 8/13 1645
3 8/15 1724 4 8/15 8:10
5 8/15 11:50 6
7 8
9 10
Receipt Information (completed by Sample Receipt)
Cooler Temp: 1c
Therm. ID: TH-25
No. of Coolers:
Notes:
Circle appropriate Y or N.
Custody seals Present? Y N
(if present) Seals intact? Y N
Received on Ice? Y N
COC/Labels complete/accurate? Y N
Headspace/Volatiles? Y N
Correct preservation? Y N
Correct sample volume? Y N
Correct containers? Y N
Container in good condition? Y N
ALSI FIELD SERVICES
Pickup
Labor
Composite Sampling
Rental Equipment
Other:
Data Deliverables
Standard
CLP-like
NJ-Reduced
NJ-Full
SDWA Forms?
State Samples Collected in?
MD
NJ
NY
PA
EDDs Required?
If yes, format type: EQUIS
DOD Criteria Required?
* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
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September 25, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9988402**
Purchase Order:	**7290**	Workorder ID:	**Drinking Water (09/14/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, September 14, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

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CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 9988402 Drinking Water (09/14/12) Discard Date: 10/09/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9988402001	DW-004C	Water	9/14/12 10:10	9/14/12 20:10	Customer
9988402002	DW-004F	Water	9/14/12 10:20	9/14/12 20:10	Customer
9988402003	DW-004G	Water	9/14/12 10:30	9/14/12 20:10	Customer
9988402004	DW-004H	Water	9/14/12 10:40	9/14/12 20:10	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402001** Date Collected: 9/14/2012 10:10 Matrix: Water

Sample ID: **DW-004C** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	7.7	ug/L		5.0	2.2	EPA 524.2			9/21/12 17:16	JAH	C
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/21/12 17:16	JAH	C
tert-Amyl methyl ether	2.6	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:16	JAH	C
tert-Amyl Alcohol	119	ug/L		5.0	1.6	EPA 524.2			9/21/12 17:16	JAH	C
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 17:16	JAH	C
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/21/12 17:16	JAH	C
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:16	JAH	C
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:16	JAH	C
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:16	JAH	C
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			9/21/12 17:16	JAH	C
tert-Butyl Alcohol	4110	ug/L		500	140	EPA 524.2			9/25/12 02:54	DD	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:16	JAH	C
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:16	JAH	C
sec-Butylbenzene	0.37J	ug/L		0.50	0.10	EPA 524.2			9/21/12 17:16	JAH	C
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:16	JAH	C
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:16	JAH	C
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/21/12 17:16	JAH	C
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:16	JAH	C
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/21/12 17:16	JAH	C
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:16	JAH	C
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:16	JAH	C
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/21/12 17:16	JAH	C
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:16	JAH	C
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/21/12 17:16	JAH	C
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:16	JAH	C
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:16	JAH	C
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:16	JAH	C
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/21/12 17:16	JAH	C
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/21/12 17:16	JAH	C
1,2-Dichlorobenzene	0.13J	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:16	JAH	C
1,3-Dichlorobenzene	0.24J	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
1,4-Dichlorobenzene	0.33J	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
1,2-Dichloroethane	8.7	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:16	JAH	C
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402001** Date Collected: 9/14/2012 10:10 Matrix: Water

Sample ID: **DW-004C** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:16	JAH	C
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:16	JAH	C
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:16	JAH	C
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:16	JAH	C
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:16	JAH	C
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 17:16	JAH	C
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/21/12 17:16	JAH	C
Diisopropyl ether	5.0	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:16	JAH	C
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/21/12 17:16	JAH	C
Ethyl Ether	0.32J	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:16	JAH	C
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/21/12 17:16	JAH	C
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:16	JAH	C
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:16	JAH	C
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/21/12 17:16	JAH	C
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/21/12 17:16	JAH	C
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:16	JAH	C
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/21/12 17:16	JAH	C
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:16	JAH	C
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/21/12 17:16	JAH	C
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:16	JAH	C
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/21/12 17:16	JAH	C
Methyl t-Butyl Ether	478	ug/L		12.5	2.3	EPA 524.2			9/22/12 17:50	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/21/12 17:16	JAH	C
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/21/12 17:16	JAH	C
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:16	JAH	C
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/21/12 17:16	JAH	C
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/21/12 17:16	JAH	C
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:16	JAH	C
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/21/12 17:16	JAH	C
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 17:16	JAH	C
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:16	JAH	C
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/21/12 17:16	JAH	C
Tetrahydrofuran	3.6	ug/L		2.5	0.81	EPA 524.2			9/21/12 17:16	JAH	C
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 17:16	JAH	C

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402001** Date Collected: 9/14/2012 10:10 Matrix: Water

Sample ID: **DW-004C** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/21/12 17:16	JAH	C
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:16	JAH	C
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:16	JAH	C
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:16	JAH	C
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:16	JAH	C
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:16	JAH	C
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:16	JAH	C
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/21/12 17:16	JAH	C
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:16	JAH	C
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:16	JAH	C
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:16	JAH	C
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 17:16	JAH	C
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/21/12 17:16	JAH	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	92.8	%		70-130		EPA 524.2			9/21/12 17:16	JAH	C
4-Bromofluorobenzene (S)	87.9	%		70-130		EPA 524.2			9/21/12 17:16	JAH	C
1,2-Dichlorobenzene-d4 (S)	77.5	%		70-130		EPA 524.2			9/22/12 17:50	JAH	B
4-Bromofluorobenzene (S)	86.8	%		70-130		EPA 524.2			9/22/12 17:50	JAH	B
1,2-Dichlorobenzene-d4 (S)	92	%		70-130		EPA 524.2			9/25/12 02:54	DD	B
4-Bromofluorobenzene (S)	78.7	%		70-130		EPA 524.2			9/25/12 02:54	DD	B
WET CHEMISTRY											
Chlorine, Total Residual	0.026J	mg/L	1	0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402002** Date Collected: 9/14/2012 10:20 Matrix: Water

Sample ID: **DW-004F** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	13.3	ug/L		5.0	2.2	EPA 524.2			9/21/12 17:42	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/21/12 17:42	JAH	B
tert-Amyl methyl ether	0.31J	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:42	JAH	B
tert-Amyl Alcohol	34.0	ug/L		5.0	1.6	EPA 524.2			9/21/12 17:42	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 17:42	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/21/12 17:42	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:42	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:42	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:42	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			9/21/12 17:42	JAH	B
tert-Butyl Alcohol	1110	ug/L		250	70.0	EPA 524.2			9/22/12 17:24	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:42	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:42	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 17:42	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:42	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:42	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/21/12 17:42	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:42	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/21/12 17:42	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:42	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:42	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/21/12 17:42	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:42	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/21/12 17:42	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:42	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:42	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:42	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/21/12 17:42	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/21/12 17:42	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:42	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
1,2-Dichloroethane	1.1	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:42	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402002** Date Collected: 9/14/2012 10:20 Matrix: Water

Sample ID: **DW-004F** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:42	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:42	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:42	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:42	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:42	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 17:42	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/21/12 17:42	JAH	B
Diisopropyl ether	0.90	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:42	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/21/12 17:42	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:42	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/21/12 17:42	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:42	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 17:42	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/21/12 17:42	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/21/12 17:42	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 17:42	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/21/12 17:42	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:42	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/21/12 17:42	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:42	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/21/12 17:42	JAH	B
Methyl t-Butyl Ether	106	ug/L		25.0	4.5	EPA 524.2			9/22/12 17:24	JAH	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/21/12 17:42	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/21/12 17:42	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:42	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/21/12 17:42	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/21/12 17:42	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:42	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/21/12 17:42	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 17:42	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 17:42	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/21/12 17:42	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			9/21/12 17:42	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 17:42	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402002** Date Collected: 9/14/2012 10:20 Matrix: Water

Sample ID: **DW-004F** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/21/12 17:42	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:42	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 17:42	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 17:42	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 17:42	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 17:42	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 17:42	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/21/12 17:42	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 17:42	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 17:42	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 17:42	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 17:42	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/21/12 17:42	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	87.9	%		70-130		EPA 524.2			9/21/12 17:42	JAH	B
4-Bromofluorobenzene (S)	85.3	%		70-130		EPA 524.2			9/21/12 17:42	JAH	B
1,2-Dichlorobenzene-d4 (S)	84.3	%		70-130		EPA 524.2			9/22/12 17:24	JAH	C
4-Bromofluorobenzene (S)	95	%		70-130		EPA 524.2			9/22/12 17:24	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	0.026J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402003** Date Collected: 9/14/2012 10:30 Matrix: Water

Sample ID: **DW-004G** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	5.6	ug/L		5.0	2.2	EPA 524.2			9/21/12 18:09	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/21/12 18:09	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 18:09	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			9/21/12 18:09	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 18:09	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/21/12 18:09	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 18:09	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 18:09	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 18:09	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			9/21/12 18:09	JAH	B
tert-Butyl Alcohol	434	ug/L		50.0	14.0	EPA 524.2			9/22/12 18:17	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 18:09	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 18:09	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 18:09	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 18:09	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 18:09	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/21/12 18:09	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 18:09	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/21/12 18:09	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 18:09	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 18:09	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/21/12 18:09	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 18:09	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/21/12 18:09	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 18:09	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 18:09	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 18:09	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/21/12 18:09	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/21/12 18:09	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 18:09	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 18:09	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402003** Date Collected: 9/14/2012 10:30 Matrix: Water

Sample ID: **DW-004G** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 18:09	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 18:09	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 18:09	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 18:09	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 18:09	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 18:09	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/21/12 18:09	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 18:09	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/21/12 18:09	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 18:09	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/21/12 18:09	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 18:09	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/21/12 18:09	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/21/12 18:09	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/21/12 18:09	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/21/12 18:09	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/21/12 18:09	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 18:09	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/21/12 18:09	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 18:09	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/21/12 18:09	JAH	B
Methyl t-Butyl Ether	0.16J	ug/L		0.50	0.090	EPA 524.2			9/21/12 18:09	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/21/12 18:09	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/21/12 18:09	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 18:09	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/21/12 18:09	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/21/12 18:09	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 18:09	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/21/12 18:09	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/21/12 18:09	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/21/12 18:09	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/21/12 18:09	JAH	B
Tetrahydrofuran	4.6	ug/L		2.5	0.81	EPA 524.2			9/21/12 18:09	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 18:09	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402003** Date Collected: 9/14/2012 10:30 Matrix: Water

Sample ID: **DW-004G** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/21/12 18:09	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 18:09	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/21/12 18:09	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/21/12 18:09	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/21/12 18:09	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/21/12 18:09	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/21/12 18:09	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/21/12 18:09	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/21/12 18:09	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/21/12 18:09	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/21/12 18:09	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/21/12 18:09	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/21/12 18:09	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	82.3	%		70-130		EPA 524.2			9/21/12 18:09	JAH	B
4-Bromofluorobenzene (S)	90.8	%		70-130		EPA 524.2			9/21/12 18:09	JAH	B
1,2-Dichlorobenzene-d4 (S)	81.8	%		70-130		EPA 524.2			9/22/12 18:17	JAH	C
4-Bromofluorobenzene (S)	89.7	%		70-130		EPA 524.2			9/22/12 18:17	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	0.015J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402004** Date Collected: 9/14/2012 10:40 Matrix: Water

Sample ID: **DW-004H** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	10.7	ug/L		5.0	2.2	EPA 524.2			9/24/12 14:06	JAH	C
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/24/12 14:06	JAH	C
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			9/24/12 14:06	JAH	C
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			9/24/12 14:06	JAH	C
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/24/12 14:06	JAH	C
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/24/12 14:06	JAH	C
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/24/12 14:06	JAH	C
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/24/12 14:06	JAH	C
Bromomethane	0.13J	ug/L		0.50	0.13	EPA 524.2			9/24/12 14:06	JAH	C
2-Butanone	4.6	ug/L		2.5	1.3	EPA 524.2			9/24/12 14:06	JAH	C
tert-Butyl Alcohol	ND	ug/L		5.0	1.4	EPA 524.2			9/24/12 14:06	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/24/12 14:06	JAH	C
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/24/12 14:06	JAH	C
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/24/12 14:06	JAH	C
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/24/12 14:06	JAH	C
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/24/12 14:06	JAH	C
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/24/12 14:06	JAH	C
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/24/12 14:06	JAH	C
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/24/12 14:06	JAH	C
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/24/12 14:06	JAH	C
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/24/12 14:06	JAH	C
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/24/12 14:06	JAH	C
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/24/12 14:06	JAH	C
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/24/12 14:06	JAH	C
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/24/12 14:06	JAH	C
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/24/12 14:06	JAH	C
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/24/12 14:06	JAH	C
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/24/12 14:06	JAH	C
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/24/12 14:06	JAH	C
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/24/12 14:06	JAH	C
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
Dichlorodifluoromethane	ND	ug/L	13	0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/24/12 14:06	JAH	C
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402004** Date Collected: 9/14/2012 10:40 Matrix: Water

Sample ID: **DW-004H** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/24/12 14:06	JAH	C
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/24/12 14:06	JAH	C
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/24/12 14:06	JAH	C
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/24/12 14:06	JAH	C
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/24/12 14:06	JAH	C
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/24/12 14:06	JAH	C
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/24/12 14:06	JAH	C
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			9/24/12 14:06	JAH	C
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/24/12 14:06	JAH	C
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			9/24/12 14:06	JAH	C
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/24/12 14:06	JAH	C
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/24/12 14:06	JAH	C
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/24/12 14:06	JAH	C
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/24/12 14:06	JAH	C
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/24/12 14:06	JAH	C
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/24/12 14:06	JAH	C
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/24/12 14:06	JAH	C
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/24/12 14:06	JAH	C
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/24/12 14:06	JAH	C
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/24/12 14:06	JAH	C
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/24/12 14:06	JAH	C
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			9/24/12 14:06	JAH	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/24/12 14:06	JAH	C
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/24/12 14:06	JAH	C
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/24/12 14:06	JAH	C
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/24/12 14:06	JAH	C
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/24/12 14:06	JAH	C
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/24/12 14:06	JAH	C
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/24/12 14:06	JAH	C
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/24/12 14:06	JAH	C
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/24/12 14:06	JAH	C
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/24/12 14:06	JAH	C
Tetrahydrofuran	69.3	ug/L		2.5	0.81	EPA 524.2			9/24/12 14:06	JAH	C
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/24/12 14:06	JAH	C

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ANALYTICAL RESULTS

Workorder: 9988402 Drinking Water (09/14/12)

Lab ID: **9988402004** Date Collected: 9/14/2012 10:40 Matrix: Water

Sample ID: **DW-004H** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/24/12 14:06	JAH	C
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/24/12 14:06	JAH	C
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/24/12 14:06	JAH	C
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/24/12 14:06	JAH	C
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/24/12 14:06	JAH	C
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/24/12 14:06	JAH	C
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/24/12 14:06	JAH	C
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/24/12 14:06	JAH	C
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/24/12 14:06	JAH	C
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/24/12 14:06	JAH	C
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/24/12 14:06	JAH	C
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/24/12 14:06	JAH	C
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/24/12 14:06	JAH	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	90	%		70-130		EPA 524.2			9/24/12 14:06	JAH	C
4-Bromofluorobenzene (S)	93.6	%		70-130		EPA 524.2			9/24/12 14:06	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	0.030J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9988402 Drinking Water (09/14/12)

PARAMETER QUALIFIERS\FLAGS

[1] Due to sample dilution, matrix spike recovery was outside of the established control limits.

[13] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 63.1 and the control limits were 70 to 130.

CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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Page 1 of 1
Courier:
Tracking #:

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Address: 2001 Kingsessing Ave. Phila, PA 19142
Phone: (215) 729-3220

Bill to (if different than Report to): Same
PO#: 7290

Project Name/#: Calvert Citgo/5977 ALSI Quote #:
TAT: Normal-Standard TAT ~~is 10-13 business days~~ 5-day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? Y bmacphail@repsg.com/jmanuel@repsg.com
Fax? Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	"Matrix" G or C	***Container Type	***Container Size	Preservative	ANALYSES/METHOD REQUESTED	Enter Number of Containers Per Analysis
1	DW-004C	Pre-Vapor/Pre-Carbon	9-14-12	10:10	G DW	Poly	Voa	HCl/ASC	Residual Chlorine	2
2	DW-004F	Post-Vapor/Pre-Carbon	9-14-12	10:20	G DW	Poly	Voa	HCl/ASC	VOCs by 524.2	2
3	DW-004G	Post-Vapor/Mid-Carbon	9-14-12	10:30	G DW	Poly	Voa	HCl/ASC	Methanol Fuel Oxygenates	2
4	DW-004H	Post-Vapor/Post-Carbon	9-14-12	10:40	G DW	Poly	Voa	HCl/ASC		2
5										
6										
7										
8										

SAMPLED BY (Please Print): T. Kloeber
LOGGED BY(signature):
REVIEWED BY(signature):

Relinquished By / Company Name | Date | Time | Received By / Company Name | Date | Time
1 | 9/14/12 | 14:30 | 2 | 9/14/12 | 1715
3 | 9-14 | 1730 | 4 | 9/14/12 | 1732
5 | 9/14 | 2010 | 6 | |
7 | | | 8 | |
9 | | | 10 | |

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Format? yes; State Samples Collected in? MD, NJ, NY, PA; If yes, format type: Other; EDD Required? EQUIS
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Receipt Information (completed by Sample Receipt): Preserved by:; Cooler Temp: 2; Therm. ID: TH-245; No. of Coolers:

Notes:

Circle appropriate Y or N.		
Container in good condition?	Y	N
COC/Labels complete/accurate?	Y	N
Received on ice?	Y	N
(if present) Seals intact?	Y	N
Custody seals Present?	Y	N
Correct sample volume?	Y	N
Correct preservation?	Y	N
Headspace/Volatiles?	Y	N
Correct container?	Y	N

*Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
**Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
* G=Grab; C=Composite

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October 26, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9994539**
Purchase Order:	**7467**	Workorder ID:	**Drinking Water (10/19/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, October 19, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 9994539 Drinking Water (10/19/12) Discard Date: 11/09/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9994539001	DW-004C_20121019_N	Water	10/19/12 10:10	10/19/12 22:15	Bradley Musser
9994539002	DW-004F_20121019_N	Water	10/19/12 10:15	10/19/12 22:15	Bradley Musser
9994539003	DW-004G_20121019_N	Water	10/19/12 10:20	10/19/12 22:15	Bradley Musser
9994539004	DW-004H_20121019_N	Water	10/19/12 10:25	10/19/12 22:15	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539001** Date Collected: 10/19/2012 10:10 Matrix: Water

Sample ID: **DW-004C_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 15:04	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 15:04	JAH	A
tert-Amyl methyl ether	2.0	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:04	JAH	A
tert-Amyl Alcohol	109	ug/L		5.0	1.6	EPA 524.2			10/24/12 15:04	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:04	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 15:04	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:04	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:04	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:04	JAH	A
2-Butanone	3.0	ug/L		2.5	1.3	EPA 524.2			10/24/12 15:04	JAH	A
tert-Butyl Alcohol	3610	ug/L		250	70.0	EPA 524.2			10/25/12 08:14	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:04	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:04	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:04	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:04	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:04	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 15:04	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:04	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 15:04	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:04	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:04	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 15:04	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:04	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 15:04	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:04	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:04	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:04	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 15:04	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 15:04	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:04	JAH	A
1,3-Dichlorobenzene	0.18J	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
1,4-Dichlorobenzene	0.15J	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
1,2-Dichloroethane	7.5	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:04	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539001** Date Collected: 10/19/2012 10:10 Matrix: Water

Sample ID: **DW-004C_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:04	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:04	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:04	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:04	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:04	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:04	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 15:04	JAH	A
Diisopropyl ether	4.6	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:04	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 15:04	JAH	A
Ethyl Ether	0.24J	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:04	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 15:04	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:04	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:04	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 15:04	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 15:04	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:04	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 15:04	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:04	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 15:04	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:04	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 15:04	JAH	A
Methyl t-Butyl Ether	345	ug/L		25.0	4.5	EPA 524.2			10/25/12 08:14	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 15:04	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 15:04	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:04	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 15:04	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 15:04	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:04	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 15:04	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:04	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:04	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 15:04	JAH	A
Tetrahydrofuran	1.4J	ug/L		2.5	0.81	EPA 524.2			10/24/12 15:04	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:04	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539001** Date Collected: 10/19/2012 10:10 Matrix: Water

Sample ID: **DW-004C_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 15:04	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:04	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:04	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:04	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:04	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:04	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:04	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 15:04	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:04	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:04	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:04	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:04	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 15:04	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	92.5	%		70-130		EPA 524.2			10/24/12 15:04	JAH	A
4-Bromofluorobenzene (S)	83.3	%		70-130		EPA 524.2			10/24/12 15:04	JAH	A
1,2-Dichlorobenzene-d4 (S)	86.7	%		70-130		EPA 524.2			10/25/12 08:14	JAH	B
4-Bromofluorobenzene (S)	80.8	%		70-130		EPA 524.2			10/25/12 08:14	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539002** Date Collected: 10/19/2012 10:15 Matrix: Water

Sample ID: **DW-004F_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 15:31	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 15:31	JAH	A
tert-Amyl methyl ether	0.51	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:31	JAH	A
tert-Amyl Alcohol	62.2	ug/L		5.0	1.6	EPA 524.2			10/24/12 15:31	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:31	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 15:31	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:31	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:31	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:31	JAH	A
2-Butanone	3.3	ug/L		2.5	1.3	EPA 524.2			10/24/12 15:31	JAH	A
tert-Butyl Alcohol	2430	ug/L		250	70.0	EPA 524.2			10/25/12 08:40	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:31	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:31	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:31	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:31	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:31	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 15:31	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:31	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 15:31	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:31	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:31	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 15:31	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:31	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 15:31	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:31	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:31	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:31	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 15:31	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 15:31	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:31	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
1,2-Dichloroethane	1.3	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:31	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A

ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539002** Date Collected: 10/19/2012 10:15 Matrix: Water

Sample ID: **DW-004F_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:31	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:31	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:31	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:31	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:31	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:31	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 15:31	JAH	A
Diisopropyl ether	0.72	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:31	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 15:31	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:31	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 15:31	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:31	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:31	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 15:31	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 15:31	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:31	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 15:31	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:31	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
Methacrylonitrile	0.42J	ug/L		1.0	0.23	EPA 524.2			10/24/12 15:31	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:31	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 15:31	JAH	A
Methyl t-Butyl Ether	98.8	ug/L		25.0	4.5	EPA 524.2			10/25/12 08:40	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 15:31	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 15:31	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:31	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 15:31	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 15:31	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:31	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 15:31	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:31	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:31	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 15:31	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			10/24/12 15:31	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:31	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539002** Date Collected: 10/19/2012 10:15 Matrix: Water

Sample ID: **DW-004F_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 15:31	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:31	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:31	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:31	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:31	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:31	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:31	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 15:31	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:31	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:31	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:31	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:31	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 15:31	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	99.5	%		70-130		EPA 524.2			10/24/12 15:31	JAH	A
4-Bromofluorobenzene (S)	89.4	%		70-130		EPA 524.2			10/24/12 15:31	JAH	A
1,2-Dichlorobenzene-d4 (S)	80.9	%		70-130		EPA 524.2			10/25/12 08:40	JAH	B
4-Bromofluorobenzene (S)	76.5	%		70-130		EPA 524.2			10/25/12 08:40	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539003** Date Collected: 10/19/2012 10:20 Matrix: Water

Sample ID: **DW-004G_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 15:57	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 15:57	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:57	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			10/24/12 15:57	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:57	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 15:57	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:57	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:57	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:57	JAH	A
2-Butanone	2.7	ug/L		2.5	1.3	EPA 524.2			10/24/12 15:57	JAH	A
tert-Butyl Alcohol	196	ug/L		25.0	7.0	EPA 524.2			10/25/12 09:06	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:57	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:57	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:57	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:57	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:57	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 15:57	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:57	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 15:57	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:57	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:57	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 15:57	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:57	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 15:57	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:57	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:57	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:57	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 15:57	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 15:57	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:57	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:57	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539003** Date Collected: 10/19/2012 10:20 Matrix: Water

Sample ID: **DW-004G_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:57	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:57	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:57	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:57	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:57	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:57	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 15:57	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:57	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 15:57	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:57	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 15:57	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:57	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 15:57	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 15:57	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 15:57	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 15:57	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 15:57	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:57	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 15:57	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:57	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 15:57	JAH	A
Methyl t-Butyl Ether	0.34J	ug/L		0.50	0.090	EPA 524.2			10/24/12 15:57	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 15:57	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 15:57	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:57	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 15:57	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 15:57	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:57	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 15:57	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 15:57	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 15:57	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 15:57	JAH	A
Tetrahydrofuran	4.3	ug/L		2.5	0.81	EPA 524.2			10/24/12 15:57	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:57	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539003** Date Collected: 10/19/2012 10:20 Matrix: Water

Sample ID: **DW-004G_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 15:57	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:57	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 15:57	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 15:57	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 15:57	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 15:57	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 15:57	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 15:57	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 15:57	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 15:57	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 15:57	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 15:57	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 15:57	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	98.4	%		70-130		EPA 524.2			10/24/12 15:57	JAH	A
4-Bromofluorobenzene (S)	88.3	%		70-130		EPA 524.2			10/24/12 15:57	JAH	A
1,2-Dichlorobenzene-d4 (S)	86.3	%		70-130		EPA 524.2			10/25/12 09:06	JAH	B
4-Bromofluorobenzene (S)	80.6	%		70-130		EPA 524.2			10/25/12 09:06	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539004** Date Collected: 10/19/2012 10:25 Matrix: Water

Sample ID: **DW-004H_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/25/12 21:23	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/25/12 21:23	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			10/25/12 21:23	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			10/25/12 21:23	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/25/12 21:23	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/25/12 21:23	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/25/12 21:23	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/25/12 21:23	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/25/12 21:23	JAH	B
2-Butanone	2.6	ug/L		2.5	1.3	EPA 524.2			10/25/12 21:23	JAH	B
tert-Butyl Alcohol	78.7	ug/L		5.0	1.4	EPA 524.2			10/25/12 21:23	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/25/12 21:23	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/25/12 21:23	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/25/12 21:23	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/25/12 21:23	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/25/12 21:23	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/25/12 21:23	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/25/12 21:23	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/25/12 21:23	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/25/12 21:23	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/25/12 21:23	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/25/12 21:23	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/25/12 21:23	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/25/12 21:23	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/25/12 21:23	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/25/12 21:23	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/25/12 21:23	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/25/12 21:23	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/25/12 21:23	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/25/12 21:23	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/25/12 21:23	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539004** Date Collected: 10/19/2012 10:25 Matrix: Water

Sample ID: **DW-004H_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/25/12 21:23	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/25/12 21:23	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/25/12 21:23	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/25/12 21:23	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/25/12 21:23	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/25/12 21:23	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/25/12 21:23	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/25/12 21:23	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/25/12 21:23	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/25/12 21:23	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/25/12 21:23	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/25/12 21:23	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/25/12 21:23	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/25/12 21:23	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/25/12 21:23	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/25/12 21:23	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			10/25/12 21:23	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/25/12 21:23	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/25/12 21:23	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/25/12 21:23	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/25/12 21:23	JAH	B
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			10/25/12 21:23	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/25/12 21:23	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/25/12 21:23	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/25/12 21:23	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/25/12 21:23	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/25/12 21:23	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/25/12 21:23	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/25/12 21:23	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/25/12 21:23	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/25/12 21:23	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/25/12 21:23	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			10/25/12 21:23	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/25/12 21:23	JAH	B

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ANALYTICAL RESULTS

Workorder: 9994539 Drinking Water (10/19/12)

Lab ID: **9994539004** Date Collected: 10/19/2012 10:25 Matrix: Water

Sample ID: **DW-004H_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/25/12 21:23	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/25/12 21:23	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/25/12 21:23	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/25/12 21:23	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/25/12 21:23	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/25/12 21:23	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/25/12 21:23	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/25/12 21:23	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/25/12 21:23	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/25/12 21:23	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/25/12 21:23	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/25/12 21:23	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/25/12 21:23	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	88.5	%		70-130		EPA 524.2			10/25/12 21:23	JAH	B
4-Bromofluorobenzene (S)	96.1	%		70-130		EPA 524.2			10/25/12 21:23	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9994539 Drinking Water (10/19/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Isopropyl Alcohol. The % Recovery was reported as 61.9 and the control limits were 70 to 130.

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
9994539

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Address: 6901 Kingsessing Ave. Phila, PA 19142
Phone: (215) 729-3220
Bill to (if different than Report to): same
PO#: 7467
Project Name/#: Calvert Citgo / 5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is ~~10-12 business days~~ 5-day; [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] Y bmacphail@repsg.com / jmanuel@repsg.com
Fax? Y No.:

	Poly	Voa
***Container Type	Poly	Voa
***Container Size	500mL	40mL
***Preservative	UP	HCl/ASC

ANALYSES/METHOD REQUESTED: Residual Chlorine; VOC's By 524.2 Including Fuel Oxygenates

Enter Number of Containers Per Analysis

#	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Residual Chlorine	VOC's By 524.2 Including Fuel Oxygenates
1	DW-004C	Pre-Vapor/Pre-Carbon	10-19-12	10:10	G	DW	1	2
2	DW-004F	Post-Vapor/Pre-Carbon	10-19-12	10:15	G	DW	1	2
3	DW-004G	Post-Vapor/Mid-Carbon	10-19-12	10:20	G	DW	1	2
4	DW-004H	Post-Vapor/Post-Carbon	10-19-12	10:25	G	DW	1	2
5								
6								
7								
8								

Performed by: [signature]
Cooler Temp:
Therm. ID: [illegible]
No. of Coolers:
Notes:

Circle appropriate Y or N.
Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Custody seals Present? Y N
(if present) Seals intact? Y N
Received on ice? Y N
COC/Labels complete/accurate? Y N
Container in good condition? Y N

SAMPLED BY (Please Print): B. Musser
LOGGED BY (signature): [signature] DATE: [illegible]
REVIEWED BY (signature):

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Bradley D Musser / REPSG	10/19/12	13:10	2	[signature] / ALS	10-19	1310
3	[signature]	10-19	1920	4	[signature]	10/19	1920
5	[signature]	10/19	2215	6	[signature]	10/19	2215
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
EDDs Required? [X] If yes, format type: EQUIS Other
Enter PWSID No
DOD Criteria Required?

ALSI FIELD SERVICES
[X] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 6/07

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November 21, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9998925**
Purchase Order:	**7561**	Workorder ID:	**Drinking Water (11/16/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, November 16, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 9998925 Drinking Water (11/16/12) Discard Date: 12/05/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9998925001	DW-004C_20121116_N	Water	11/16/12 10:00	11/16/12 22:45	Customer
9998925002	DW-004F_20121116_N	Water	11/16/12 10:10	11/16/12 22:45	Customer
9998925003	DW-004G_20121116_N	Water	11/16/12 10:20	11/16/12 22:45	Customer
9998925004	DW-004H_20121116_N	Water	11/16/12 10:30	11/16/12 22:45	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925001** Date Collected: 11/16/2012 10:00 Matrix: Water

Sample ID: **DW-004C_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			11/20/12 03:15	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 03:15	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 03:15	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			11/20/12 03:15	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 03:15	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/20/12 03:15	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 03:15	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 03:15	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 03:15	JAH	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			11/20/12 03:15	JAH	A
tert-Butyl Alcohol	3650	ug/L		250	70.0	EPA 524.2			11/20/12 16:15	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 03:15	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 03:15	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 03:15	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 03:15	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 03:15	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 03:15	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 03:15	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/20/12 03:15	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 03:15	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 03:15	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 03:15	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 03:15	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 03:15	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 03:15	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 03:15	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 03:15	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/20/12 03:15	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/20/12 03:15	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 03:15	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
1,2-Dichloroethane	14.8	ug/L		0.50	0.15	EPA 524.2			11/20/12 03:15	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925001** Date Collected: 11/16/2012 10:00 Matrix: Water

Sample ID: **DW-004C_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 03:15	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 03:15	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 03:15	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 03:15	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 03:15	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 03:15	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 03:15	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 03:15	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/20/12 03:15	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 03:15	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 03:15	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 03:15	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 03:15	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/20/12 03:15	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/20/12 03:15	JAH	A
Iodomethane	ND	ug/L	1	0.50	0.19	EPA 524.2			11/20/12 03:15	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/20/12 03:15	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 03:15	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 03:15	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 03:15	JAH	A
Methyl acrylate	ND	ug/L	2	1.0	0.21	EPA 524.2			11/20/12 03:15	JAH	A
Methyl t-Butyl Ether	339	ug/L		25.0	4.5	EPA 524.2			11/20/12 16:15	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/20/12 03:15	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/20/12 03:15	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 03:15	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/20/12 03:15	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/20/12 03:15	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 03:15	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/20/12 03:15	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 03:15	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 03:15	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 03:15	JAH	A
Tetrahydrofuran	4.1	ug/L		2.5	0.81	EPA 524.2			11/20/12 03:15	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 03:15	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925001** Date Collected: 11/16/2012 10:00 Matrix: Water

Sample ID: **DW-004C_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/20/12 03:15	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 03:15	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 03:15	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 03:15	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 03:15	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 03:15	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 03:15	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/20/12 03:15	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 03:15	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 03:15	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 03:15	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 03:15	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/20/12 03:15	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	79.5	%		70-130		EPA 524.2			11/20/12 03:15	JAH	A
4-Bromofluorobenzene (S)	96.6	%		70-130		EPA 524.2			11/20/12 03:15	JAH	A
1,2-Dichlorobenzene-d4 (S)	82.6	%		70-130		EPA 524.2			11/20/12 16:15	JAH	B
4-Bromofluorobenzene (S)	105	%		70-130		EPA 524.2			11/20/12 16:15	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			11/17/12 04:40	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925002** Date Collected: 11/16/2012 10:10 Matrix: Water

Sample ID: **DW-004F_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			11/20/12 04:08	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 04:08	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 04:08	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			11/20/12 04:08	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 04:08	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/20/12 04:08	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 04:08	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 04:08	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 04:08	JAH	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			11/20/12 04:08	JAH	A
tert-Butyl Alcohol	1580	ug/L		125	35.0	EPA 524.2			11/20/12 16:41	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 04:08	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 04:08	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 04:08	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 04:08	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 04:08	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 04:08	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 04:08	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/20/12 04:08	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 04:08	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 04:08	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 04:08	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 04:08	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 04:08	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 04:08	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 04:08	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 04:08	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/20/12 04:08	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/20/12 04:08	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 04:08	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
1,2-Dichloroethane	1.6	ug/L		0.50	0.15	EPA 524.2			11/20/12 04:08	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925002** Date Collected: 11/16/2012 10:10 Matrix: Water

Sample ID: **DW-004F_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 04:08	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 04:08	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 04:08	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 04:08	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 04:08	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 04:08	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 04:08	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 04:08	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/20/12 04:08	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 04:08	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 04:08	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 04:08	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 04:08	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/20/12 04:08	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/20/12 04:08	JAH	A
Iodomethane	ND	ug/L	1	0.50	0.19	EPA 524.2			11/20/12 04:08	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/20/12 04:08	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 04:08	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 04:08	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 04:08	JAH	A
Methyl acrylate	ND	ug/L	2	1.0	0.21	EPA 524.2			11/20/12 04:08	JAH	A
Methyl t-Butyl Ether	67.5	ug/L		12.5	2.3	EPA 524.2			11/20/12 16:41	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/20/12 04:08	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/20/12 04:08	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 04:08	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/20/12 04:08	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/20/12 04:08	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 04:08	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/20/12 04:08	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 04:08	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 04:08	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 04:08	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			11/20/12 04:08	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 04:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925002** Date Collected: 11/16/2012 10:10 Matrix: Water

Sample ID: **DW-004F_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/20/12 04:08	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 04:08	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 04:08	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 04:08	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 04:08	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 04:08	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 04:08	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/20/12 04:08	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 04:08	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 04:08	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 04:08	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 04:08	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/20/12 04:08	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	74.2	%		70-130		EPA 524.2			11/20/12 04:08	JAH	A
4-Bromofluorobenzene (S)	66.3	%	5	70-130		EPA 524.2			11/20/12 04:08	JAH	A
1,2-Dichlorobenzene-d4 (S)	60.2	%	6	70-130		EPA 524.2			11/20/12 16:41	JAH	B
4-Bromofluorobenzene (S)	72	%		70-130		EPA 524.2			11/20/12 16:41	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			11/17/12 04:40	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925003** Date Collected: 11/16/2012 10:20 Matrix: Water

Sample ID: **DW-004G_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			11/20/12 05:00	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 05:00	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:00	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			11/20/12 05:00	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 05:00	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/20/12 05:00	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:00	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:00	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:00	JAH	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			11/20/12 05:00	JAH	A
tert-Butyl Alcohol	145	ug/L		25.0	7.0	EPA 524.2			11/20/12 17:07	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:00	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:00	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 05:00	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:00	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:00	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 05:00	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:00	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/20/12 05:00	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:00	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:00	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 05:00	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:00	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 05:00	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:00	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:00	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:00	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/20/12 05:00	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/20/12 05:00	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:00	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:00	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925003** Date Collected: 11/16/2012 10:20 Matrix: Water

Sample ID: **DW-004G_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:00	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:00	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:00	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:00	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:00	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 05:00	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 05:00	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:00	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/20/12 05:00	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:00	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 05:00	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:00	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:00	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/20/12 05:00	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/20/12 05:00	JAH	A
Iodomethane	ND	ug/L	1	0.50	0.19	EPA 524.2			11/20/12 05:00	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/20/12 05:00	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:00	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 05:00	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:00	JAH	A
Methyl acrylate	ND	ug/L	2	1.0	0.21	EPA 524.2			11/20/12 05:00	JAH	A
Methyl t-Butyl Ether	0.31J	ug/L		0.50	0.090	EPA 524.2			11/20/12 05:00	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/20/12 05:00	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/20/12 05:00	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:00	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/20/12 05:00	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/20/12 05:00	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:00	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/20/12 05:00	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 05:00	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:00	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 05:00	JAH	A
Tetrahydrofuran	5.7	ug/L		2.5	0.81	EPA 524.2			11/20/12 05:00	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 05:00	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925003** Date Collected: 11/16/2012 10:20 Matrix: Water

Sample ID: **DW-004G_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/20/12 05:00	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:00	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:00	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:00	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:00	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:00	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:00	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/20/12 05:00	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:00	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:00	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:00	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 05:00	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/20/12 05:00	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	90.8	%		70-130		EPA 524.2			11/20/12 05:00	JAH	A
4-Bromofluorobenzene (S)	105	%		70-130		EPA 524.2			11/20/12 05:00	JAH	A
1,2-Dichlorobenzene-d4 (S)	74.6	%		70-130		EPA 524.2			11/20/12 17:07	JAH	A
4-Bromofluorobenzene (S)	102	%		70-130		EPA 524.2			11/20/12 17:07	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			11/17/12 04:40	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925004** Date Collected: 11/16/2012 10:30 Matrix: Water

Sample ID: **DW-004H_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			11/20/12 05:52	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 05:52	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:52	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			11/20/12 05:52	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 05:52	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/20/12 05:52	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:52	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:52	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:52	JAH	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			11/20/12 05:52	JAH	A
tert-Butyl Alcohol	299	ug/L		50.0	14.0	EPA 524.2			11/20/12 17:34	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:52	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:52	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 05:52	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:52	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:52	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/20/12 05:52	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:52	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/20/12 05:52	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:52	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:52	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 05:52	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:52	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 05:52	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:52	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:52	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:52	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/20/12 05:52	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/20/12 05:52	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:52	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:52	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925004** Date Collected: 11/16/2012 10:30 Matrix: Water

Sample ID: **DW-004H_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:52	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:52	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:52	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:52	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:52	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 05:52	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 05:52	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:52	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/20/12 05:52	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:52	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/20/12 05:52	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:52	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/20/12 05:52	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/20/12 05:52	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/20/12 05:52	JAH	A
Iodomethane	ND	ug/L	1	0.50	0.19	EPA 524.2			11/20/12 05:52	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/20/12 05:52	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:52	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/20/12 05:52	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:52	JAH	A
Methyl acrylate	ND	ug/L	2	1.0	0.21	EPA 524.2			11/20/12 05:52	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			11/20/12 05:52	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/20/12 05:52	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/20/12 05:52	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:52	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/20/12 05:52	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/20/12 05:52	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:52	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/20/12 05:52	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/20/12 05:52	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/20/12 05:52	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/20/12 05:52	JAH	A
Tetrahydrofuran	1.3J	ug/L		2.5	0.81	EPA 524.2			11/20/12 05:52	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 05:52	JAH	A

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ANALYTICAL RESULTS

Workorder: 9998925 Drinking Water (11/16/12)

Lab ID: **9998925004** Date Collected: 11/16/2012 10:30 Matrix: Water

Sample ID: **DW-004H_20121116_N** Date Received: 11/16/2012 22:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/20/12 05:52	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:52	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/20/12 05:52	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/20/12 05:52	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/20/12 05:52	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/20/12 05:52	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/20/12 05:52	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/20/12 05:52	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/20/12 05:52	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/20/12 05:52	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/20/12 05:52	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/20/12 05:52	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/20/12 05:52	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	62.3	%	7	70-130		EPA 524.2			11/20/12 05:52	JAH	A
4-Bromofluorobenzene (S)	73.1	%		70-130		EPA 524.2			11/20/12 05:52	JAH	A
1,2-Dichlorobenzene-d4 (S)	71	%		70-130		EPA 524.2			11/20/12 17:34	JAH	B
4-Bromofluorobenzene (S)	77.9	%		70-130		EPA 524.2			11/20/12 17:34	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			11/17/12 04:40	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9998925 Drinking Water (11/16/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 66.7 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Methyl acrylate. The % Recovery was reported as 62.5 and the control limits were 70 to 130.

[5] The surrogate 4-Bromofluorobenzene for method EPA 524.2 was outside of control limits. The % Recovery was reported as 66.3 and the control limits were 70 to 130. This result was reported at a dilution of 1.

[6] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 60.2 and the control limits were 70 to 130. This result was reported at a dilution of 25.

[7] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 62.3 and the control limits were 70 to 130. This result was reported at a dilution of 1.

2794

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1 Courier: Tracking #:

Co. Name: REPSG, Inc
Contact (Report to): Brenda Kellogg; James Manuel Phone: (215) 728-3220
Address: 6901 Kingsessing Ave Phila, PA 19142

Bill to (if different than Report to): same PO#: 7561
Project Name/#: Colwell Ridge/5977 ALSI Quote #:
TAT: Normal-Standard TAT is 10 business days. 5 day Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:
Email? Y jmanuel@repsg.com
Fax? Y No:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	**Matrix	Preservative ***	***Container Site	***Container Type	Enter Number of Containers Per Analysis	Beaded Chlorine	VOC's By Sw8260 Including Fed Oxygenates	Custody Seals Present?	Custody Seals Intact? (if present)	Received on Ice?	COC/Labels complete/accurate?	Headspace/Volatiles?	Correct preservation?	Correct sample volume?	Correct containers?	Circle appropriate Y or N.
1	DW-004C	Pre-Vapor/Pre-Carbon	11/14/12	1000	G	DW				2	2										
2	DW-004F	Post-Vapor/Pre-Carbon	11/14/12	1010	G	DW				2	2										
3	DW-004G	Post-Vapor/Mid-Carbon	11/14/12	1020	G	DW				2	2										
4	DW-004H	Post-Vapor/Post-Carbon	11/14/12	1030	G	DW				2	2										
5																					
6																					
7																					
8																					

SAMPLED BY (Please Print): B. Kumar
LOGGED BY(signature): DATE 11/14/12 TIME 1610
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	11-16	1605	2	11-16	1605
3	11-16	1900	4	11/16	1900
5	11/16	2245	6	11/16/12	2245
7			8		
9			10		

Cooler Temp: 1 Therm. ID: 7(11) Person-nel #: V INITIAL HERE
No. of Coolers:
Notes:

Data Deliverables: Standard, CLP-like, NJ-Reduced, NJ-Full, EDDs (Equis), If yes, format type: Other
SDWA Forms/Info yes
State Samples Collected in? MD, NJ, NY, PA
Enter Report #
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup, Labor, Composite Sampling, Rental Equipment, Other:

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

*G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 6/07

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December 14, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**1002704**
Purchase Order:	**7642**	Workorder ID:	**Drinking Water (12/11/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, December 11, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1002704 Drinking Water (12/11/12) Discard Date: 12/27/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1002704001	DW-004C_20121211_N	Water	12/11/12 10:20	12/11/12 21:50	Customer
1002704002	DW-004F_20121211_N	Water	12/11/12 10:30	12/11/12 21:50	Customer
1002704003	DW-004G_20121211_N	Water	12/11/12 10:40	12/11/12 21:50	Customer
1002704004	DW-004H_20121211_N	Water	12/11/12 10:50	12/11/12 21:50	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704001** Date Collected: 12/11/2012 10:20 Matrix: Water

Sample ID: **DW-004C_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			12/12/12 17:58	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 17:58	JAH	A
tert-Amyl methyl ether	2.5	ug/L		0.50	0.15	EPA 524.2			12/12/12 17:58	JAH	A
tert-Amyl Alcohol	132	ug/L		5.0	1.6	EPA 524.2			12/12/12 17:58	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 17:58	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 17:58	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 17:58	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 17:58	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 17:58	JAH	A
2-Butanone	7.3	ug/L		2.5	1.3	EPA 524.2			12/12/12 17:58	JAH	A
tert-Butyl Alcohol	4830	ug/L		250	70.0	EPA 524.2			12/13/12 04:03	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 17:58	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 17:58	JAH	A
sec-Butylbenzene	0.75	ug/L		0.50	0.10	EPA 524.2			12/12/12 17:58	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 17:58	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 17:58	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 17:58	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 17:58	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 17:58	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 17:58	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 17:58	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 17:58	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 17:58	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 17:58	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 17:58	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 17:58	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 17:58	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 17:58	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 17:58	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 17:58	JAH	A
1,3-Dichlorobenzene	0.14J	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
1,4-Dichlorobenzene	0.15J	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
1,2-Dichloroethane	9.4	ug/L		0.50	0.15	EPA 524.2			12/12/12 17:58	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704001** Date Collected: 12/11/2012 10:20 Matrix: Water

Sample ID: **DW-004C_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 17:58	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 17:58	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 17:58	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 17:58	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 17:58	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 17:58	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 17:58	JAH	A
Diisopropyl ether	4.4	ug/L		0.50	0.21	EPA 524.2			12/12/12 17:58	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 17:58	JAH	A
Ethyl Ether	0.25J	ug/L		0.50	0.21	EPA 524.2			12/12/12 17:58	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 17:58	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 17:58	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 17:58	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 17:58	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 17:58	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 17:58	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 17:58	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 17:58	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 17:58	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 17:58	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 17:58	JAH	A
Methyl t-Butyl Ether	476	ug/L		25.0	4.5	EPA 524.2			12/13/12 04:03	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 17:58	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 17:58	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 17:58	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 17:58	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 17:58	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 17:58	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 17:58	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 17:58	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 17:58	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 17:58	JAH	A
Tetrahydrofuran	2.2J	ug/L		2.5	0.81	EPA 524.2			12/12/12 17:58	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 17:58	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704001** Date Collected: 12/11/2012 10:20 Matrix: Water

Sample ID: **DW-004C_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 17:58	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 17:58	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 17:58	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 17:58	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 17:58	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 17:58	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 17:58	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 17:58	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 17:58	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 17:58	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 17:58	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 17:58	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 17:58	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	83.3	%		70-130		EPA 524.2			12/12/12 17:58	JAH	A
4-Bromofluorobenzene (S)	82.1	%		70-130		EPA 524.2			12/12/12 17:58	JAH	A
1,2-Dichlorobenzene-d4 (S)	96	%		70-130		EPA 524.2			12/13/12 04:03	JAH	A
4-Bromofluorobenzene (S)	90.5	%		70-130		EPA 524.2			12/13/12 04:03	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704002** Date Collected: 12/11/2012 10:30 Matrix: Water

Sample ID: **DW-004F_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.6J	ug/L		5.0	2.2	EPA 524.2			12/12/12 18:25	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 18:25	JAH	A
tert-Amyl methyl ether	0.48J	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:25	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			12/12/12 18:25	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 18:25	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 18:25	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:25	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:25	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:25	JAH	A
2-Butanone	9.0	ug/L		2.5	1.3	EPA 524.2			12/12/12 18:25	JAH	A
tert-Butyl Alcohol	2190	ug/L		125	35.0	EPA 524.2			12/13/12 04:29	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:25	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:25	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 18:25	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:25	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:25	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 18:25	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:25	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 18:25	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:25	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:25	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 18:25	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:25	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 18:25	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:25	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:25	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:25	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 18:25	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 18:25	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:25	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
1,2-Dichloroethane	2.0	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:25	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704002** Date Collected: 12/11/2012 10:30 Matrix: Water

Sample ID: **DW-004F_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:25	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:25	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:25	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:25	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:25	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 18:25	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 18:25	JAH	A
Diisopropyl ether	0.77	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:25	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 18:25	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:25	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 18:25	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:25	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:25	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 18:25	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 18:25	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:25	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 18:25	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:25	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 18:25	JAH	A
Methyl methacrylate	0.33J	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:25	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 18:25	JAH	A
Methyl t-Butyl Ether	124	ug/L		12.5	2.3	EPA 524.2			12/13/12 04:29	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 18:25	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 18:25	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:25	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 18:25	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 18:25	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:25	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 18:25	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 18:25	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:25	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 18:25	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			12/12/12 18:25	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 18:25	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704002** Date Collected: 12/11/2012 10:30 Matrix: Water

Sample ID: **DW-004F_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 18:25	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:25	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:25	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:25	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:25	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:25	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:25	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 18:25	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:25	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:25	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:25	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 18:25	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 18:25	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	93.6	%		70-130		EPA 524.2			12/12/12 18:25	JAH	A
4-Bromofluorobenzene (S)	82.9	%		70-130		EPA 524.2			12/12/12 18:25	JAH	A
1,2-Dichlorobenzene-d4 (S)	85	%		70-130		EPA 524.2			12/13/12 04:29	JAH	A
4-Bromofluorobenzene (S)	81.2	%		70-130		EPA 524.2			12/13/12 04:29	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704003** Date Collected: 12/11/2012 10:40 Matrix: Water

Sample ID: **DW-004G_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			12/12/12 18:51	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 18:51	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:51	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			12/12/12 18:51	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 18:51	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 18:51	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:51	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:51	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:51	JAH	A
2-Butanone	9.7	ug/L		2.5	1.3	EPA 524.2			12/12/12 18:51	JAH	A
tert-Butyl Alcohol	95.6	ug/L		25.0	7.0	EPA 524.2			12/13/12 06:40	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:51	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:51	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 18:51	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:51	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:51	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 18:51	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:51	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 18:51	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:51	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:51	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 18:51	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:51	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 18:51	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:51	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:51	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:51	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 18:51	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 18:51	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:51	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:51	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704003** Date Collected: 12/11/2012 10:40 Matrix: Water

Sample ID: **DW-004G_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:51	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:51	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:51	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:51	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:51	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 18:51	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 18:51	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:51	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 18:51	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:51	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 18:51	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:51	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 18:51	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 18:51	JAH	A
Hexane	0.33J	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 18:51	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 18:51	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 18:51	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:51	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 18:51	JAH	A
Methyl methacrylate	0.36J	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:51	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 18:51	JAH	A
Methyl t-Butyl Ether	3.6	ug/L		2.5	0.45	EPA 524.2			12/13/12 06:40	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 18:51	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 18:51	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:51	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 18:51	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 18:51	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:51	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 18:51	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 18:51	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 18:51	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 18:51	JAH	A
Tetrahydrofuran	5.0	ug/L		2.5	0.81	EPA 524.2			12/12/12 18:51	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 18:51	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704003** Date Collected: 12/11/2012 10:40 Matrix: Water

Sample ID: **DW-004G_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 18:51	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:51	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 18:51	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 18:51	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 18:51	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 18:51	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 18:51	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 18:51	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 18:51	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 18:51	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 18:51	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 18:51	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 18:51	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	89.6	%		70-130		EPA 524.2			12/12/12 18:51	JAH	A
4-Bromofluorobenzene (S)	87.9	%		70-130		EPA 524.2			12/12/12 18:51	JAH	A
1,2-Dichlorobenzene-d4 (S)	87.4	%		70-130		EPA 524.2			12/13/12 06:40	JAH	A
4-Bromofluorobenzene (S)	80.8	%		70-130		EPA 524.2			12/13/12 06:40	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704004** Date Collected: 12/11/2012 10:50 Matrix: Water

Sample ID: **DW-004H_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			12/12/12 19:17	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 19:17	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:17	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			12/12/12 19:17	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 19:17	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 19:17	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:17	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:17	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:17	JAH	B
2-Butanone	8.7	ug/L		2.5	1.3	EPA 524.2			12/12/12 19:17	JAH	B
tert-Butyl Alcohol	405	ug/L		25.0	7.0	EPA 524.2			12/13/12 05:21	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:17	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:17	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 19:17	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:17	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:17	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 19:17	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:17	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 19:17	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:17	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:17	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 19:17	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:17	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 19:17	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:17	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:17	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:17	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 19:17	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 19:17	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:17	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:17	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704004** Date Collected: 12/11/2012 10:50 Matrix: Water

Sample ID: **DW-004H_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:17	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:17	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:17	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:17	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:17	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 19:17	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 19:17	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:17	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 19:17	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:17	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 19:17	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:17	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:17	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 19:17	JAH	B
Hexane	0.54	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 19:17	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:17	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 19:17	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:17	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 19:17	JAH	B
Methyl methacrylate	0.40J	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:17	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 19:17	JAH	B
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			12/12/12 19:17	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 19:17	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 19:17	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:17	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 19:17	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 19:17	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:17	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 19:17	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 19:17	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:17	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 19:17	JAH	B
Tetrahydrofuran	10.6	ug/L		2.5	0.81	EPA 524.2			12/12/12 19:17	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 19:17	JAH	B

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ANALYTICAL RESULTS

Workorder: 1002704 Drinking Water (12/11/12)

Lab ID: **1002704004** Date Collected: 12/11/2012 10:50 Matrix: Water

Sample ID: **DW-004H_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 19:17	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:17	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:17	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:17	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:17	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:17	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:17	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 19:17	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:17	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:17	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:17	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 19:17	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 19:17	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	99.7	%		70-130		EPA 524.2			12/12/12 19:17	JAH	B
4-Bromofluorobenzene (S)	86.9	%		70-130		EPA 524.2			12/12/12 19:17	JAH	B
1,2-Dichlorobenzene-d4 (S)	88.8	%		70-130		EPA 524.2			12/13/12 05:21	JAH	B
4-Bromofluorobenzene (S)	89.6	%		70-130		EPA 524.2			12/13/12 05:21	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1002704 Drinking Water (12/11/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 67.4 and the control limits were 70 to 130.

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February 5, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**1009805**
Purchase Order:	**7783**	Workorder ID:	**Drinking Water (01/30/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 30, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

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SAMPLE SUMMARY

Workorder: 1009805 Drinking Water (01/30/13) Discard Date: 02/18/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1009805001	DW-004C_20130130_N	Water	1/30/13 10:00	1/30/13 21:45	Bradley Musser
1009805002	DW-004F_20130130_N	Water	1/30/13 10:10	1/30/13 21:45	Bradley Musser
1009805003	DW-004G_20130130_N	Water	1/30/13 10:20	1/30/13 21:45	Bradley Musser
1009805004	DW-004H_20130130_N	Water	1/30/13 10:30	1/30/13 21:45	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805001** Date Collected: 1/30/2013 10:00 Matrix: Water

Sample ID: **DW-004C_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			1/31/13 21:08	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 21:08	JAH	A
tert-Amyl methyl ether	2.9	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:08	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/31/13 21:08	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 21:08	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/31/13 21:08	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:08	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:08	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:08	JAH	A
2-Butanone	8.3	ug/L		2.5	1.3	EPA 524.2			1/31/13 21:08	JAH	A
tert-Butyl Alcohol	3830	ug/L		250	70.0	EPA 524.2			2/1/13 17:45	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:08	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:08	JAH	A
sec-Butylbenzene	0.42J	ug/L		0.50	0.10	EPA 524.2			1/31/13 21:08	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:08	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:08	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 21:08	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:08	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/31/13 21:08	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:08	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:08	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 21:08	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:08	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 21:08	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:08	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:08	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:08	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/31/13 21:08	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/31/13 21:08	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:08	JAH	A
1,3-Dichlorobenzene	0.12J	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
1,4-Dichlorobenzene	0.12J	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
1,2-Dichloroethane	8.6	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:08	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805001** Date Collected: 1/30/2013 10:00 Matrix: Water

Sample ID: **DW-004C_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:08	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:08	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:08	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:08	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:08	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 21:08	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 21:08	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:08	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/31/13 21:08	JAH	A
Ethyl Ether	0.23J	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:08	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 21:08	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:08	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:08	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/31/13 21:08	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/31/13 21:08	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:08	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/31/13 21:08	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:08	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 21:08	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:08	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 21:08	JAH	A
Methyl t-Butyl Ether	350	ug/L		25.0	4.5	EPA 524.2			2/1/13 17:45	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/31/13 21:08	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/31/13 21:08	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:08	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/31/13 21:08	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/31/13 21:08	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:08	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/31/13 21:08	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 21:08	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:08	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 21:08	JAH	A
Tetrahydrofuran	2.2J	ug/L		2.5	0.81	EPA 524.2			1/31/13 21:08	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 21:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805001** Date Collected: 1/30/2013 10:00 Matrix: Water

Sample ID: **DW-004C_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			1/31/13 21:08	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:08	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:08	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:08	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:08	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:08	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:08	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/31/13 21:08	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:08	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:08	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:08	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 21:08	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 21:08	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	74.9	%		70-130		EPA 524.2			1/31/13 21:08	JAH	A
4-Bromofluorobenzene (S)	77.8	%		70-130		EPA 524.2			1/31/13 21:08	JAH	A
1,2-Dichlorobenzene-d4 (S)	70.1	%		70-130		EPA 524.2			2/1/13 17:45	JAH	B
4-Bromofluorobenzene (S)	77.9	%		70-130		EPA 524.2			2/1/13 17:45	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805002** Date Collected: 1/30/2013 10:10 Matrix: Water

Sample ID: **DW-004F_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.2J	ug/L		5.0	2.2	EPA 524.2			1/31/13 21:33	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 21:33	JAH	A
tert-Amyl methyl ether	0.45J	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:33	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/31/13 21:33	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 21:33	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/31/13 21:33	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:33	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:33	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:33	JAH	A
2-Butanone	7.4	ug/L		2.5	1.3	EPA 524.2			1/31/13 21:33	JAH	A
tert-Butyl Alcohol	1380	ug/L		100	28.0	EPA 524.2			2/1/13 18:11	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:33	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:33	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 21:33	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:33	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:33	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/31/13 21:33	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:33	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/31/13 21:33	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:33	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:33	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 21:33	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:33	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 21:33	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:33	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:33	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:33	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/31/13 21:33	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/31/13 21:33	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:33	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
1,2-Dichloroethane	1.5	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:33	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805002** Date Collected: 1/30/2013 10:10 Matrix: Water

Sample ID: **DW-004F_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:33	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:33	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:33	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:33	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:33	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 21:33	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 21:33	JAH	A
Diisopropyl ether	1.1	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:33	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/31/13 21:33	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:33	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/31/13 21:33	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:33	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/31/13 21:33	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/31/13 21:33	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/31/13 21:33	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			1/31/13 21:33	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/31/13 21:33	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:33	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/31/13 21:33	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:33	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 21:33	JAH	A
Methyl t-Butyl Ether	82.3	ug/L		10.0	1.8	EPA 524.2			2/1/13 18:11	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/31/13 21:33	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/31/13 21:33	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:33	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/31/13 21:33	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/31/13 21:33	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:33	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/31/13 21:33	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/31/13 21:33	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/31/13 21:33	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/31/13 21:33	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/31/13 21:33	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 21:33	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805002** Date Collected: 1/30/2013 10:10 Matrix: Water

Sample ID: **DW-004F_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			1/31/13 21:33	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:33	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/31/13 21:33	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/31/13 21:33	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/31/13 21:33	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/31/13 21:33	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/31/13 21:33	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/31/13 21:33	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/31/13 21:33	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/31/13 21:33	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/31/13 21:33	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/31/13 21:33	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			1/31/13 21:33	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	81.3	%		70-130		EPA 524.2			1/31/13 21:33	JAH	A
4-Bromofluorobenzene (S)	81.5	%		70-130		EPA 524.2			1/31/13 21:33	JAH	A
1,2-Dichlorobenzene-d4 (S)	73.7	%		70-130		EPA 524.2			2/1/13 18:11	JAH	B
4-Bromofluorobenzene (S)	78.4	%		70-130		EPA 524.2			2/1/13 18:11	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805003** Date Collected: 1/30/2013 10:20 Matrix: Water

Sample ID: **DW-004G_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			2/1/13 04:02	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 04:02	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:02	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/1/13 04:02	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:02	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/1/13 04:02	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:02	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:02	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:02	JAH	A
2-Butanone	8.6	ug/L		2.5	1.3	EPA 524.2			2/1/13 04:02	JAH	A
tert-Butyl Alcohol	102	ug/L		5.0	1.4	EPA 524.2			2/1/13 04:02	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:02	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:02	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:02	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:02	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:02	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 04:02	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:02	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/1/13 04:02	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:02	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:02	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 04:02	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:02	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 04:02	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:02	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:02	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:02	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/1/13 04:02	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/1/13 04:02	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:02	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:02	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805003** Date Collected: 1/30/2013 10:20 Matrix: Water

Sample ID: **DW-004G_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:02	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:02	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:02	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:02	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:02	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:02	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 04:02	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:02	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/1/13 04:02	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:02	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 04:02	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:02	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:02	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/1/13 04:02	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/1/13 04:02	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:02	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/1/13 04:02	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:02	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 04:02	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:02	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 04:02	JAH	A
Methyl t-Butyl Ether	4.0	ug/L		0.50	0.090	EPA 524.2			2/1/13 04:02	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/1/13 04:02	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/1/13 04:02	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:02	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/1/13 04:02	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/1/13 04:02	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:02	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/1/13 04:02	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:02	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:02	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 04:02	JAH	A
Tetrahydrofuran	3.9	ug/L		2.5	0.81	EPA 524.2			2/1/13 04:02	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:02	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805003** Date Collected: 1/30/2013 10:20 Matrix: Water

Sample ID: **DW-004G_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/1/13 04:02	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:02	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:02	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:02	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:02	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:02	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:02	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/1/13 04:02	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:02	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:02	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:02	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:02	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 04:02	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	76.1	%		70-130		EPA 524.2			2/1/13 04:02	JAH	A
4-Bromofluorobenzene (S)	79.9	%		70-130		EPA 524.2			2/1/13 04:02	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805004** Date Collected: 1/30/2013 10:30 Matrix: Water

Sample ID: **DW-004H_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	2.7J	ug/L		5.0	2.2	EPA 524.2			2/1/13 04:28	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 04:28	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:28	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/1/13 04:28	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:28	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/1/13 04:28	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:28	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:28	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:28	JAH	A
2-Butanone	8.8	ug/L		2.5	1.3	EPA 524.2			2/1/13 04:28	JAH	A
tert-Butyl Alcohol	179	ug/L		50.0	14.0	EPA 524.2			2/1/13 18:36	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:28	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:28	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:28	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:28	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:28	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 04:28	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:28	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/1/13 04:28	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:28	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:28	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 04:28	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:28	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 04:28	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:28	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:28	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:28	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/1/13 04:28	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/1/13 04:28	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:28	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:28	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805004** Date Collected: 1/30/2013 10:30 Matrix: Water

Sample ID: **DW-004H_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:28	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:28	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:28	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:28	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:28	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:28	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 04:28	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:28	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/1/13 04:28	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:28	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 04:28	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:28	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:28	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/1/13 04:28	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/1/13 04:28	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:28	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/1/13 04:28	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:28	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 04:28	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:28	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 04:28	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/1/13 04:28	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/1/13 04:28	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/1/13 04:28	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:28	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/1/13 04:28	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/1/13 04:28	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:28	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/1/13 04:28	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:28	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:28	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 04:28	JAH	A
Tetrahydrofuran	2.4J	ug/L		2.5	0.81	EPA 524.2			2/1/13 04:28	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:28	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009805 Drinking Water (01/30/13)

Lab ID: **1009805004** Date Collected: 1/30/2013 10:30 Matrix: Water

Sample ID: **DW-004H_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/1/13 04:28	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:28	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:28	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:28	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:28	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:28	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:28	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/1/13 04:28	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:28	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:28	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:28	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:28	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 04:28	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	73.2	%		70-130		EPA 524.2			2/1/13 04:28	JAH	A
4-Bromofluorobenzene (S)	75.7	%		70-130		EPA 524.2			2/1/13 04:28	JAH	A
1,2-Dichlorobenzene-d4 (S)	71.3	%		70-130		EPA 524.2			2/1/13 18:36	JAH	B
4-Bromofluorobenzene (S)	73.8	%		70-130		EPA 524.2			2/1/13 18:36	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

2794: DW-004

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

* 1 0 0 9 8 0 5 *

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel
Address: 6901 Kingsesing Ave. Phila, PA 19142
Phone: (215) 729-3220

Bill to (if different than Report to): Same
PO#: 7783

Project Name/#: Calvert Citgo/5977
ALSI Quote #:

TAT: [X] Normal-Standard TAT is ~~10-12 business days.~~ 5-day
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [X] Y jmanuel@repsg.com / bmdiphai@repsg.com
Fax? [ ] Y No.:

	Container Type	Container Size	Preservative	Analyses/Method Requested
	Ply	500mL	UP	Residual Chlorine
	Voa	40mL	HCl/ASC	VOC's By 524.2 Including Fuel Oxygenate

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Residual Chlorine	VOC's By 524.2 Including Fuel Oxygenate
1 DW-004 C	Pre-Vapor / Pre-Carbon	1/30/13	10:00	G	DW	1	2
2 DW-004 F	Post-Vapor / Pre-Carbon	1/30/13	10:10	G	DW	1	2
3 DW-004 G	Post-Vapor / Mid-Carbon	1/30/13	10:20	G	DW	1	2
4 DW-004 H	Post-Vapor / Post-Carbon	1/30/13	10:30	G	DW	1	2
5							
6							
7							
8							

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: [initials]
Cooler Temp: 1°C
Therm. ID: TH-25
No. of Coolers:
Notes:

Check	Circle appropriate Y or N.
Correct containers?	Y N
Correct sample volume?	Y N
Correct preservation?	Y N
Headspace/Volatiles?	Y N
Custody seals Present?	Y N
(if present) Seals intact?	Y N
Received on ice?	Y N
COC/Labels complete/accurate?	Y N
Container in good condition?	Y N

SAMPLED BY (Please Print): B. Musser
LOGGED BY (signature): [signature] DATE 1/31/13 TIME 0315
REVIEWED BY (signature): DATE TIME

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	1/29/13	14:15	2	[signature]	1-30	1415
3	[signature]	1-30		4	[signature]	1/30	1925
5	D. Quick	1/30	2145	6	[signature]	1/30	2145
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [X] If yes, format type: EQUIS
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES: [X] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Rev 6/07

ALS Environmental

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February 27, 2013

Ms. Brenda MacPhail Kellogg
REPSG
6901 Kingsessing Blvd.
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVET CITGO PROJECT**	Workorder:	**1013473**
Purchase Order:	**7839**	Workorder ID:	**Drinking Water (02/21/13)**

Dear Ms. Kellogg,

Enclosed are the analytical results for samples received by the laboratory on Thursday, February 21, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1013473 Drinking Water (02/21/13) Discard Date: 03/12/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1013473001	DW-004C_20130221-N	Water	2/21/13 10:00	2/21/13 20:40	Bradley Musser
1013473002	DW-004F_20130221-N	Water	2/21/13 10:10	2/21/13 20:40	Bradley Musser
1013473003	DW-004G_20130221-N	Water	2/21/13 10:20	2/21/13 20:40	Bradley Musser
1013473004	DW-004H_20130221-N	Water	2/21/13 10:30	2/21/13 20:40	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473001** Date Collected: 2/21/2013 10:00 Matrix: Water

Sample ID: **DW-004C_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	5.6	ug/L		5.0	2.2	EPA 524.2			2/22/13 21:40	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 21:40	DRS	A
tert-Amyl methyl ether	2.4	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:40	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 21:40	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 21:40	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 21:40	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:40	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:40	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 21:40	DRS	A
2-Butanone	8.4	ug/L		2.5	1.3	EPA 524.2			2/22/13 21:40	DRS	A
tert-Butyl Alcohol	5790	ug/L		500	140	EPA 524.2			2/23/13 08:31	DRS	B
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 21:40	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:40	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 21:40	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:40	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:40	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 21:40	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:40	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 21:40	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:40	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:40	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 21:40	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:40	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 21:40	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:40	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:40	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:40	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 21:40	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 21:40	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 21:40	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
1,2-Dichloroethane	9.8	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:40	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473001** Date Collected: 2/21/2013 10:00 Matrix: Water

Sample ID: **DW-004C_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:40	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:40	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:40	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:40	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:40	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 21:40	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 21:40	DRS	A
Diisopropyl ether	5.8	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:40	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 21:40	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:40	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 21:40	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:40	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 21:40	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 21:40	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 21:40	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 21:40	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 21:40	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:40	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 21:40	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:40	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 21:40	DRS	A
Methyl t-Butyl Ether	421	ug/L		50.0	9.0	EPA 524.2			2/23/13 08:31	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 21:40	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 21:40	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:40	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 21:40	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 21:40	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:40	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 21:40	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 21:40	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 21:40	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 21:40	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/22/13 21:40	DRS	A
Toluene	0.15J	ug/L		0.50	0.12	EPA 524.2			2/22/13 21:40	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473001** Date Collected: 2/21/2013 10:00 Matrix: Water

Sample ID: **DW-004C_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 21:40	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:40	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:40	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:40	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:40	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:40	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:40	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 21:40	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:40	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:40	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:40	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 21:40	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 21:40	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	66.8	%	5	70-130		EPA 524.2			2/22/13 21:40	DRS	A
4-Bromofluorobenzene (S)	71.6	%		70-130		EPA 524.2			2/22/13 21:40	DRS	A
1,2-Dichlorobenzene-d4 (S)	72.7	%		70-130		EPA 524.2			2/23/13 08:31	DRS	B
4-Bromofluorobenzene (S)	78.8	%		70-130		EPA 524.2			2/23/13 08:31	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473002** Date Collected: 2/21/2013 10:10 Matrix: Water

Sample ID: **DW-004F_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	8.5	ug/L		5.0	2.2	EPA 524.2			2/22/13 21:14	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 21:14	DRS	A
tert-Amyl methyl ether	0.49J	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:14	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 21:14	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 21:14	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 21:14	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:14	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:14	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 21:14	DRS	A
2-Butanone	10.0	ug/L		2.5	1.3	EPA 524.2			2/22/13 21:14	DRS	A
tert-Butyl Alcohol	2430	ug/L		250	70.0	EPA 524.2			2/23/13 08:56	DRS	B
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 21:14	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:14	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 21:14	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:14	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:14	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 21:14	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:14	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 21:14	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:14	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:14	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 21:14	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:14	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 21:14	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:14	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:14	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:14	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 21:14	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 21:14	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 21:14	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
1,2-Dichloroethane	1.8	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:14	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473002** Date Collected: 2/21/2013 10:10 Matrix: Water

Sample ID: **DW-004F_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:14	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:14	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:14	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 21:14	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:14	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 21:14	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 21:14	DRS	A
Diisopropyl ether	1.2	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:14	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 21:14	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:14	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 21:14	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:14	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 21:14	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 21:14	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 21:14	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 21:14	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 21:14	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:14	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 21:14	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:14	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 21:14	DRS	A
Methyl t-Butyl Ether	96.5	ug/L		25.0	4.5	EPA 524.2			2/23/13 08:56	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 21:14	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 21:14	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:14	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 21:14	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 21:14	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:14	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 21:14	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 21:14	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 21:14	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 21:14	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/22/13 21:14	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 21:14	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473002** Date Collected: 2/21/2013 10:10 Matrix: Water

Sample ID: **DW-004F_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 21:14	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:14	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 21:14	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 21:14	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 21:14	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 21:14	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 21:14	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 21:14	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 21:14	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 21:14	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 21:14	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 21:14	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 21:14	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	70.5	%		70-130		EPA 524.2			2/22/13 21:14	DRS	A
4-Bromofluorobenzene (S)	76.3	%		70-130		EPA 524.2			2/22/13 21:14	DRS	A
1,2-Dichlorobenzene-d4 (S)	70.1	%		70-130		EPA 524.2			2/23/13 08:56	DRS	B
4-Bromofluorobenzene (S)	82	%		70-130		EPA 524.2			2/23/13 08:56	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473003** Date Collected: 2/21/2013 10:20 Matrix: Water

Sample ID: **DW-004G_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	9.1	ug/L		5.0	2.2	EPA 524.2			2/25/13 15:50	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/25/13 15:50	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/25/13 15:50	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/25/13 15:50	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/25/13 15:50	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/25/13 15:50	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/25/13 15:50	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/25/13 15:50	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/25/13 15:50	DRS	A
2-Butanone	12.9	ug/L		2.5	1.3	EPA 524.2			2/25/13 15:50	DRS	A
tert-Butyl Alcohol	32.9	ug/L		5.0	1.4	EPA 524.2			2/25/13 15:50	DRS	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/25/13 15:50	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/25/13 15:50	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/25/13 15:50	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/25/13 15:50	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/25/13 15:50	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/25/13 15:50	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/25/13 15:50	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/25/13 15:50	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/25/13 15:50	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/25/13 15:50	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/25/13 15:50	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/25/13 15:50	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/25/13 15:50	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/25/13 15:50	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/25/13 15:50	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/25/13 15:50	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/25/13 15:50	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/25/13 15:50	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/25/13 15:50	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/25/13 15:50	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473003** Date Collected: 2/21/2013 10:20 Matrix: Water

Sample ID: **DW-004G_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/25/13 15:50	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/25/13 15:50	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/25/13 15:50	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/25/13 15:50	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/25/13 15:50	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/25/13 15:50	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/25/13 15:50	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/25/13 15:50	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/25/13 15:50	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/25/13 15:50	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/25/13 15:50	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/25/13 15:50	DRS	A
Hexachlorobutadiene	ND	ug/L	6	0.50	0.24	EPA 524.2			2/25/13 15:50	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/25/13 15:50	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/25/13 15:50	DRS	A
Iodomethane	ND	ug/L	7	0.50	0.19	EPA 524.2			2/25/13 15:50	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/25/13 15:50	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/25/13 15:50	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/25/13 15:50	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/25/13 15:50	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/25/13 15:50	DRS	A
Methyl t-Butyl Ether	9.0	ug/L		0.50	0.090	EPA 524.2			2/25/13 15:50	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/25/13 15:50	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/25/13 15:50	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/25/13 15:50	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/25/13 15:50	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/25/13 15:50	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/25/13 15:50	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/25/13 15:50	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/25/13 15:50	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/25/13 15:50	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/25/13 15:50	DRS	A
Tetrahydrofuran	4.4	ug/L		2.5	0.81	EPA 524.2			2/25/13 15:50	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/25/13 15:50	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473003** Date Collected: 2/21/2013 10:20 Matrix: Water

Sample ID: **DW-004G_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/25/13 15:50	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/25/13 15:50	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/25/13 15:50	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/25/13 15:50	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/25/13 15:50	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/25/13 15:50	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/25/13 15:50	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/25/13 15:50	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/25/13 15:50	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/25/13 15:50	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/25/13 15:50	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/25/13 15:50	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/25/13 15:50	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	66.9	%	8	70-130		EPA 524.2			2/25/13 15:50	DRS	A
4-Bromofluorobenzene (S)	71.9	%		70-130		EPA 524.2			2/25/13 15:50	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473004** Date Collected: 2/21/2013 10:30 Matrix: Water

Sample ID: **DW-004H_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	8.5	ug/L		5.0	2.2	EPA 524.2			2/22/13 20:23	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 20:23	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:23	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 20:23	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 20:23	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 20:23	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:23	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:23	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 20:23	DRS	A
2-Butanone	12.3	ug/L		2.5	1.3	EPA 524.2			2/22/13 20:23	DRS	A
tert-Butyl Alcohol	152	ug/L		25.0	7.0	EPA 524.2			2/26/13 07:58	DRS	B
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 20:23	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:23	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 20:23	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:23	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:23	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 20:23	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:23	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 20:23	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:23	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:23	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 20:23	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:23	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 20:23	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:23	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:23	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:23	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 20:23	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 20:23	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 20:23	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:23	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473004** Date Collected: 2/21/2013 10:30 Matrix: Water

Sample ID: **DW-004H_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:23	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:23	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:23	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:23	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:23	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 20:23	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 20:23	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:23	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 20:23	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:23	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 20:23	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:23	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 20:23	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 20:23	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 20:23	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 20:23	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 20:23	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:23	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 20:23	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:23	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 20:23	DRS	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/22/13 20:23	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 20:23	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 20:23	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:23	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 20:23	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 20:23	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:23	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 20:23	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 20:23	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 20:23	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 20:23	DRS	A
Tetrahydrofuran	6.3	ug/L		2.5	0.81	EPA 524.2			2/22/13 20:23	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 20:23	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013473 Drinking Water (02/21/13)

Lab ID: **1013473004** Date Collected: 2/21/2013 10:30 Matrix: Water

Sample ID: **DW-004H_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 20:23	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:23	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:23	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:23	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:23	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:23	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:23	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 20:23	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:23	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:23	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:23	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 20:23	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 20:23	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	68.6	%	11	70-130		EPA 524.2			2/22/13 20:23	DRS	A
4-Bromofluorobenzene (S)	74.2	%		70-130		EPA 524.2			2/22/13 20:23	DRS	A
1,2-Dichlorobenzene-d4 (S)	70.2	%		70-130		EPA 524.2			2/26/13 07:58	DRS	B
4-Bromofluorobenzene (S)	81.1	%		70-130		EPA 524.2			2/26/13 07:58	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1013473 Drinking Water (02/21/13)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte n-Butylbenzene. The % Recovery was reported as 60.3 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 63.3 and the control limits were 70 to 130.

[3] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 60.8 and the control limits were 70 to 130.

[5] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 66.8 and the control limits were 70 to 130. This result was reported at a dilution of 1.

[6] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 64.8 and the control limits were 70 to 130.

[7] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 43.8 and the control limits were 70 to 130.

[8] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 66.9 and the control limits were 70 to 130. This result was reported at a dilution of 1.

[11] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 68.6 and the control limits were 70 to 130. This result was reported at a dilution of 1.

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

2794

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

* 1 0 1 3 4 7 3 *

Co. Name: PEPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (if different than Report to): Same
PO#: 7839
Project Name/#: Calvert Citgo/5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is ~~10-12 business days.~~ 5-day
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] Y bmacphail@repsg.com / jmanuel@repsg.com
Fax? [ ] Y No.:

***Container Type	Poly	Voa
***Container Size	500ml	40ml
***Preservative	UP	HCL/ASC
ANALYSES/METHOD REQUESTED	Residual Chlorine	VOC's 524.2 Including Fuel Oxygenates

Enter Number of Containers Per Analysis

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Residual Chlorine	VOC's 524.2 Including Fuel Oxygenates
1 DW-004C	Pre-Vapor/Pre-Carbon	2/21/13	10:00	G	DW	1	2
2 DW-004F	Post-Vapor/Pre-Carbon	2/21/13	10:10	G	DW	1	2
3 DW-004G	Post-Vapor/Mid-Carbon	2/21/13	10:20	G	DW	1	2
4 DW-004H	Post-Vapor/Post-Carbon	2/21/13	10:30	G	DW	1	2
5							
6							
7							
8							

Performed by: [signature]
Cooler Temp: 1
Therm. ID: TTXS
No. of Coolers:
Notes:

Circle appropriate Y or N.

Correct containers?	Y	(N)
Correct sample volume?	Y	(N)
Correct preservation?	Y	(N)
Headspace/Volatiles?	Y	N
Custody seals Present?	Y	(N)
(if present) Seals intact?	Y	N
Received on ice?	(Y)	N
COC/Labels complete/accurate?	(Y)	N
Container in good condition?	(Y)	N

SAMPLED BY (Please Print): B. Musser
LOGGED BY (signature): [signature] Date: 2/22/13 Time: 0852
REVIEWED BY (signature):

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	2-21	13:45	2 Ron Henry	2-21	1345
3 Ron Hagan	2-21		4 [signature]	2/21	19
5 [signature]	2/21	2040	6 [signature]	2/21	2040
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
EDDs Required? [X] If yes, format type: EQUIS
⇨Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES: [✓] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 6/07

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March 14, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1016000**
Purchase Order:	**7902**	Workorder ID:	**Drinking Water (03/08/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, March 08, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1016000 Drinking Water (03/08/13) Discard Date: 03/28/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1016000001	DW-004C_20130308_N	Water	3/8/13 11:00	3/8/13 19:52	Customer
1016000002	DW-004F_20130308_N	Water	3/8/13 10:55	3/8/13 19:52	Customer
1016000003	DW-004G_20130308_N	Water	3/8/13 10:50	3/8/13 19:52	Customer
1016000004	DW-004H_20130308_N	Water	3/8/13 10:45	3/8/13 19:52	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000001** Date Collected: 3/8/2013 11:00 Matrix: Water

Sample ID: **DW-004C_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		25.0	11.0	EPA 524.2			3/13/13 22:27	DRS	A
Acrylonitrile	ND	ug/L		12.5	4.4	EPA 524.2			3/13/13 22:27	DRS	A
tert-Amyl methyl ether	2.8	ug/L		2.5	0.75	EPA 524.2			3/13/13 22:27	DRS	A
tert-Amyl Alcohol	ND	ug/L		25.0	8.0	EPA 524.2			3/13/13 22:27	DRS	A
tert-Amyl Ethylether	ND	ug/L		2.5	0.60	EPA 524.2			3/13/13 22:27	DRS	A
Benzene	ND	ug/L		2.5	0.35	EPA 524.2			3/13/13 22:27	DRS	A
Bromobenzene	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
Bromochloromethane	ND	ug/L		2.5	1.0	EPA 524.2			3/13/13 22:27	DRS	A
Bromodichloromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Bromoform	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
Bromomethane	ND	ug/L		2.5	0.65	EPA 524.2			3/13/13 22:27	DRS	A
2-Butanone	ND	ug/L		12.5	6.5	EPA 524.2			3/13/13 22:27	DRS	A
tert-Butyl Alcohol	5100	ug/L		250	70.0	EPA 524.2			3/13/13 22:52	DRS	A
n-Butylbenzene	ND	ug/L		2.5	0.65	EPA 524.2			3/13/13 22:27	DRS	A
tert-Butylbenzene	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
sec-Butylbenzene	ND	ug/L		2.5	0.50	EPA 524.2			3/13/13 22:27	DRS	A
Carbon Disulfide	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Carbon Tetrachloride	ND	ug/L		2.5	1.0	EPA 524.2			3/13/13 22:27	DRS	A
Chloroacetonitrile	ND	ug/L		12.5	4.4	EPA 524.2			3/13/13 22:27	DRS	A
Chlorobenzene	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 22:27	DRS	A
1-Chlorobutane	ND	ug/L		5.0	1.4	EPA 524.2			3/13/13 22:27	DRS	A
Chlorodibromomethane	ND	ug/L		2.5	0.90	EPA 524.2			3/13/13 22:27	DRS	A
Chloroethane	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
Chloroform	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
Chloromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
3-Chloro-1-propene	ND	ug/L		2.5	0.85	EPA 524.2			3/13/13 22:27	DRS	A
o-Chlorotoluene	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
p-Chlorotoluene	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 22:27	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
1,2-Dibromoethane	ND	ug/L		2.5	0.75	EPA 524.2			3/13/13 22:27	DRS	A
Dibromomethane	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		5.0	1.4	EPA 524.2			3/13/13 22:27	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		62.5	11.0	EPA 524.2			3/13/13 22:27	DRS	A
1,2-Dichlorobenzene	ND	ug/L		2.5	0.65	EPA 524.2			3/13/13 22:27	DRS	A
1,3-Dichlorobenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
1,4-Dichlorobenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
Dichlorodifluoromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
1,1-Dichloroethane	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
1,2-Dichloroethane	10.2	ug/L		2.5	0.75	EPA 524.2			3/13/13 22:27	DRS	A
1,1-Dichloroethene	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000001** Date Collected: 3/8/2013 11:00 Matrix: Water

Sample ID: **DW-004C_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
Dichlorofluoromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
1,3-Dichloropropane	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 22:27	DRS	A
2,2-Dichloropropane	ND	ug/L		2.5	0.90	EPA 524.2			3/13/13 22:27	DRS	A
1,2-Dichloropropane	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
1,1-Dichloropropene	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		2.5	0.75	EPA 524.2			3/13/13 22:27	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		2.5	0.50	EPA 524.2			3/13/13 22:27	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		5.0	1.2	EPA 524.2			3/13/13 22:27	DRS	A
Diisopropyl ether	6.2	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
1,4-Dioxane	ND	ug/L		20.0	7.5	EPA 524.2			3/13/13 22:27	DRS	A
Ethyl Ether	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Ethyl Methacrylate	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 22:27	DRS	A
Ethyl tert-butyl ether	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
Ethylbenzene	ND	ug/L		2.5	0.90	EPA 524.2			3/13/13 22:27	DRS	A
Hexachlorobutadiene	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
Hexachloroethane	ND	ug/L		5.0	1.6	EPA 524.2			3/13/13 22:27	DRS	A
Hexane	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
2-Hexanone	ND	ug/L		12.5	4.1	EPA 524.2			3/13/13 22:27	DRS	A
Iodomethane	ND	ug/L		2.5	0.95	EPA 524.2			3/13/13 22:27	DRS	A
Isopropyl Alcohol	ND	ug/L		125	19.5	EPA 524.2			3/13/13 22:27	DRS	A
Isopropylbenzene	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 22:27	DRS	A
p-Isopropyltoluene	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
Methacrylonitrile	ND	ug/L		5.0	1.2	EPA 524.2			3/13/13 22:27	DRS	A
Methyl methacrylate	ND	ug/L		2.5	1.0	EPA 524.2			3/13/13 22:27	DRS	A
Methyl acrylate	ND	ug/L		5.0	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Methyl t-Butyl Ether	458	ug/L		25.0	4.5	EPA 524.2			3/13/13 22:52	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		12.5	2.8	EPA 524.2			3/13/13 22:27	DRS	A
Methylene Chloride	ND	ug/L		2.5	1.6	EPA 524.2			3/13/13 22:27	DRS	A
Naphthalene	ND	ug/L		2.5	0.75	EPA 524.2			3/13/13 22:27	DRS	A
Nitrobenzene	ND	ug/L		25.0	9.0	EPA 524.2			3/13/13 22:27	DRS	A
2-Nitropropane	ND	ug/L		12.5	4.0	EPA 524.2			3/13/13 22:27	DRS	A
Pentachloroethane	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
Propionitrile	ND	ug/L		12.5	3.5	EPA 524.2			3/13/13 22:27	DRS	A
n-Propylbenzene	ND	ug/L		2.5	0.50	EPA 524.2			3/13/13 22:27	DRS	A
Styrene	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		2.5	0.65	EPA 524.2			3/13/13 22:27	DRS	A
Tetrachloroethene	ND	ug/L		2.5	0.85	EPA 524.2			3/13/13 22:27	DRS	A
Tetrahydrofuran	ND	ug/L		12.5	4.1	EPA 524.2			3/13/13 22:27	DRS	A
Toluene	ND	ug/L		2.5	0.60	EPA 524.2			3/13/13 22:27	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000001** Date Collected: 3/8/2013 11:00 Matrix: Water

Sample ID: **DW-004C_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		7.5	1.4	EPA 524.2			3/13/13 22:27	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 22:27	DRS	A
1,1,1-Trichloroethane	ND	ug/L		2.5	0.75	EPA 524.2			3/13/13 22:27	DRS	A
1,1,2-Trichloroethane	ND	ug/L		2.5	1.0	EPA 524.2			3/13/13 22:27	DRS	A
Trichloroethene	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Trichlorofluoromethane	ND	ug/L		2.5	0.90	EPA 524.2			3/13/13 22:27	DRS	A
1,2,3-Trichloropropane	ND	ug/L		2.5	1.4	EPA 524.2			3/13/13 22:27	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/13/13 22:27	DRS	A
Vinyl Acetate	ND	ug/L		2.5	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Vinyl Chloride	ND	ug/L		2.5	1.2	EPA 524.2			3/13/13 22:27	DRS	A
o-Xylene	ND	ug/L		2.5	0.60	EPA 524.2			3/13/13 22:27	DRS	A
mp-Xylene	ND	ug/L		5.0	1.1	EPA 524.2			3/13/13 22:27	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78.6	%		70-130		EPA 524.2			3/13/13 22:27	DRS	A
4-Bromofluorobenzene (S)	91.6	%		70-130		EPA 524.2			3/13/13 22:27	DRS	A
1,2-Dichlorobenzene-d4 (S)	93.4	%		70-130		EPA 524.2			3/13/13 22:52	DRS	A
4-Bromofluorobenzene (S)	87.6	%		70-130		EPA 524.2			3/13/13 22:52	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000002** Date Collected: 3/8/2013 10:55 Matrix: Water

Sample ID: **DW-004F_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		25.0	11.0	EPA 524.2			3/12/13 22:42	DRS	A
Acrylonitrile	ND	ug/L		12.5	4.4	EPA 524.2			3/12/13 22:42	DRS	A
tert-Amyl methyl ether	ND	ug/L		2.5	0.75	EPA 524.2			3/12/13 22:42	DRS	A
tert-Amyl Alcohol	ND	ug/L		25.0	8.0	EPA 524.2			3/12/13 22:42	DRS	A
tert-Amyl Ethylether	ND	ug/L		2.5	0.60	EPA 524.2			3/12/13 22:42	DRS	A
Benzene	ND	ug/L		2.5	0.35	EPA 524.2			3/12/13 22:42	DRS	A
Bromobenzene	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
Bromochloromethane	ND	ug/L		2.5	1.0	EPA 524.2			3/12/13 22:42	DRS	A
Bromodichloromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Bromoform	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
Bromomethane	ND	ug/L		2.5	0.65	EPA 524.2			3/12/13 22:42	DRS	A
2-Butanone	ND	ug/L		12.5	6.5	EPA 524.2			3/12/13 22:42	DRS	A
tert-Butyl Alcohol	170	ug/L		125	35.0	EPA 524.2			3/13/13 23:18	DRS	A
n-Butylbenzene	ND	ug/L	1	2.5	0.65	EPA 524.2			3/12/13 22:42	DRS	A
tert-Butylbenzene	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
sec-Butylbenzene	ND	ug/L		2.5	0.50	EPA 524.2			3/12/13 22:42	DRS	A
Carbon Disulfide	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Carbon Tetrachloride	ND	ug/L		2.5	1.0	EPA 524.2			3/12/13 22:42	DRS	A
Chloroacetonitrile	ND	ug/L		12.5	4.4	EPA 524.2			3/12/13 22:42	DRS	A
Chlorobenzene	ND	ug/L		2.5	0.70	EPA 524.2			3/12/13 22:42	DRS	A
1-Chlorobutane	ND	ug/L	2	5.0	1.4	EPA 524.2			3/12/13 22:42	DRS	A
Chlorodibromomethane	ND	ug/L		2.5	0.90	EPA 524.2			3/12/13 22:42	DRS	A
Chloroethane	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
Chloroform	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
Chloromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
3-Chloro-1-propene	ND	ug/L		2.5	0.85	EPA 524.2			3/12/13 22:42	DRS	A
o-Chlorotoluene	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
p-Chlorotoluene	ND	ug/L		2.5	0.80	EPA 524.2			3/12/13 22:42	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
1,2-Dibromoethane	ND	ug/L		2.5	0.75	EPA 524.2			3/12/13 22:42	DRS	A
Dibromomethane	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		5.0	1.4	EPA 524.2			3/12/13 22:42	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		62.5	11.0	EPA 524.2			3/12/13 22:42	DRS	A
1,2-Dichlorobenzene	ND	ug/L		2.5	0.65	EPA 524.2			3/12/13 22:42	DRS	A
1,3-Dichlorobenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
1,4-Dichlorobenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
Dichlorodifluoromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
1,1-Dichloroethane	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
1,2-Dichloroethane	ND	ug/L		2.5	0.75	EPA 524.2			3/12/13 22:42	DRS	A
1,1-Dichloroethene	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000002** Date Collected: 3/8/2013 10:55 Matrix: Water

Sample ID: **DW-004F_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
Dichlorofluoromethane	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
1,3-Dichloropropane	ND	ug/L		2.5	0.70	EPA 524.2			3/12/13 22:42	DRS	A
2,2-Dichloropropane	ND	ug/L		2.5	0.90	EPA 524.2			3/12/13 22:42	DRS	A
1,2-Dichloropropane	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
1,1-Dichloropropene	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		2.5	0.75	EPA 524.2			3/12/13 22:42	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		2.5	0.50	EPA 524.2			3/12/13 22:42	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		5.0	1.2	EPA 524.2			3/12/13 22:42	DRS	A
Diisopropyl ether	1.4J	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
1,4-Dioxane	ND	ug/L		20.0	7.5	EPA 524.2			3/12/13 22:42	DRS	A
Ethyl Ether	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Ethyl Methacrylate	ND	ug/L		2.5	0.80	EPA 524.2			3/12/13 22:42	DRS	A
Ethyl tert-butyl ether	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
Ethylbenzene	ND	ug/L		2.5	0.90	EPA 524.2			3/12/13 22:42	DRS	A
Hexachlorobutadiene	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
Hexachloroethane	ND	ug/L		5.0	1.6	EPA 524.2			3/12/13 22:42	DRS	A
Hexane	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
2-Hexanone	ND	ug/L		12.5	4.1	EPA 524.2			3/12/13 22:42	DRS	A
Iodomethane	ND	ug/L		2.5	0.95	EPA 524.2			3/12/13 22:42	DRS	A
Isopropyl Alcohol	ND	ug/L		125	19.5	EPA 524.2			3/12/13 22:42	DRS	A
Isopropylbenzene	ND	ug/L		2.5	0.70	EPA 524.2			3/12/13 22:42	DRS	A
p-Isopropyltoluene	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
Methacrylonitrile	ND	ug/L		5.0	1.2	EPA 524.2			3/12/13 22:42	DRS	A
Methyl methacrylate	ND	ug/L		2.5	1.0	EPA 524.2			3/12/13 22:42	DRS	A
Methyl acrylate	ND	ug/L		5.0	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Methyl t-Butyl Ether	106	ug/L		2.5	0.45	EPA 524.2			3/12/13 22:42	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		12.5	2.8	EPA 524.2			3/12/13 22:42	DRS	A
Methylene Chloride	ND	ug/L		2.5	1.6	EPA 524.2			3/12/13 22:42	DRS	A
Naphthalene	ND	ug/L		2.5	0.75	EPA 524.2			3/12/13 22:42	DRS	A
Nitrobenzene	ND	ug/L		25.0	9.0	EPA 524.2			3/12/13 22:42	DRS	A
2-Nitropropane	ND	ug/L		12.5	4.0	EPA 524.2			3/12/13 22:42	DRS	A
Pentachloroethane	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
Propionitrile	ND	ug/L		12.5	3.5	EPA 524.2			3/12/13 22:42	DRS	A
n-Propylbenzene	ND	ug/L		2.5	0.50	EPA 524.2			3/12/13 22:42	DRS	A
Styrene	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		2.5	0.65	EPA 524.2			3/12/13 22:42	DRS	A
Tetrachloroethene	ND	ug/L	3	2.5	0.85	EPA 524.2			3/12/13 22:42	DRS	A
Tetrahydrofuran	ND	ug/L		12.5	4.1	EPA 524.2			3/12/13 22:42	DRS	A
Toluene	ND	ug/L		2.5	0.60	EPA 524.2			3/12/13 22:42	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000002** Date Collected: 3/8/2013 10:55 Matrix: Water

Sample ID: **DW-004F_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		7.5	1.4	EPA 524.2			3/12/13 22:42	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		2.5	0.70	EPA 524.2			3/12/13 22:42	DRS	A
1,1,1-Trichloroethane	ND	ug/L		2.5	0.75	EPA 524.2			3/12/13 22:42	DRS	A
1,1,2-Trichloroethane	ND	ug/L		2.5	1.0	EPA 524.2			3/12/13 22:42	DRS	A
Trichloroethene	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Trichlorofluoromethane	ND	ug/L		2.5	0.90	EPA 524.2			3/12/13 22:42	DRS	A
1,2,3-Trichloropropane	ND	ug/L		2.5	1.4	EPA 524.2			3/12/13 22:42	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		2.5	0.55	EPA 524.2			3/12/13 22:42	DRS	A
Vinyl Acetate	ND	ug/L		2.5	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Vinyl Chloride	ND	ug/L		2.5	1.2	EPA 524.2			3/12/13 22:42	DRS	A
o-Xylene	ND	ug/L		2.5	0.60	EPA 524.2			3/12/13 22:42	DRS	A
mp-Xylene	ND	ug/L		5.0	1.1	EPA 524.2			3/12/13 22:42	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.6	%		70-130		EPA 524.2			3/12/13 22:42	DRS	A
4-Bromofluorobenzene (S)	99.8	%		70-130		EPA 524.2			3/12/13 22:42	DRS	A
1,2-Dichlorobenzene-d4 (S)	76.8	%		70-130		EPA 524.2			3/13/13 23:18	DRS	A
4-Bromofluorobenzene (S)	81.6	%		70-130		EPA 524.2			3/13/13 23:18	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000003** Date Collected: 3/8/2013 10:50 Matrix: Water

Sample ID: **DW-004G_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			3/14/13 01:27	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/14/13 01:27	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			3/14/13 01:27	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			3/14/13 01:27	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			3/14/13 01:27	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			3/14/13 01:27	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			3/14/13 01:27	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			3/14/13 01:27	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			3/14/13 01:27	DRS	A
2-Butanone	8.0	ug/L		2.5	1.3	EPA 524.2			3/14/13 01:27	DRS	A
tert-Butyl Alcohol	40.7	ug/L		5.0	1.4	EPA 524.2			3/14/13 01:27	DRS	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/14/13 01:27	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			3/14/13 01:27	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/14/13 01:27	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			3/14/13 01:27	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			3/14/13 01:27	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/14/13 01:27	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/14/13 01:27	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			3/14/13 01:27	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			3/14/13 01:27	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			3/14/13 01:27	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			3/14/13 01:27	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			3/14/13 01:27	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			3/14/13 01:27	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			3/14/13 01:27	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			3/14/13 01:27	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			3/14/13 01:27	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			3/14/13 01:27	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			3/14/13 01:27	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/14/13 01:27	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/14/13 01:27	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000003** Date Collected: 3/8/2013 10:50 Matrix: Water

Sample ID: **DW-004G_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			3/14/13 01:27	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			3/14/13 01:27	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			3/14/13 01:27	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			3/14/13 01:27	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			3/14/13 01:27	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			3/14/13 01:27	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			3/14/13 01:27	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			3/14/13 01:27	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			3/14/13 01:27	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			3/14/13 01:27	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			3/14/13 01:27	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			3/14/13 01:27	DRS	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			3/14/13 01:27	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			3/14/13 01:27	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			3/14/13 01:27	DRS	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			3/14/13 01:27	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			3/14/13 01:27	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/14/13 01:27	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			3/14/13 01:27	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			3/14/13 01:27	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			3/14/13 01:27	DRS	A
Methyl t-Butyl Ether	5.6	ug/L		0.50	0.090	EPA 524.2			3/14/13 01:27	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			3/14/13 01:27	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			3/14/13 01:27	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			3/14/13 01:27	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			3/14/13 01:27	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			3/14/13 01:27	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			3/14/13 01:27	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			3/14/13 01:27	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/14/13 01:27	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			3/14/13 01:27	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			3/14/13 01:27	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			3/14/13 01:27	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			3/14/13 01:27	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000003** Date Collected: 3/8/2013 10:50 Matrix: Water

Sample ID: **DW-004G_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			3/14/13 01:27	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			3/14/13 01:27	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/14/13 01:27	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/14/13 01:27	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			3/14/13 01:27	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			3/14/13 01:27	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			3/14/13 01:27	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			3/14/13 01:27	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/14/13 01:27	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			3/14/13 01:27	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			3/14/13 01:27	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			3/14/13 01:27	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			3/14/13 01:27	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	85.7	%		70-130		EPA 524.2			3/14/13 01:27	DRS	A
4-Bromofluorobenzene (S)	81.1	%		70-130		EPA 524.2			3/14/13 01:27	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000004** Date Collected: 3/8/2013 10:45 Matrix: Water

Sample ID: **DW-004H_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			3/13/13 21:35	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 21:35	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 21:35	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			3/13/13 21:35	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 21:35	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			3/13/13 21:35	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 21:35	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 21:35	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 21:35	DRS	A
2-Butanone	7.0	ug/L		2.5	1.3	EPA 524.2			3/13/13 21:35	DRS	A
tert-Butyl Alcohol	132	ug/L		25.0	7.0	EPA 524.2			3/13/13 22:01	DRS	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 21:35	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 21:35	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 21:35	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 21:35	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 21:35	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 21:35	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 21:35	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			3/13/13 21:35	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 21:35	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 21:35	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 21:35	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 21:35	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 21:35	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 21:35	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 21:35	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 21:35	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			3/13/13 21:35	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			3/13/13 21:35	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 21:35	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 21:35	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000004** Date Collected: 3/8/2013 10:45 Matrix: Water

Sample ID: **DW-004H_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 21:35	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 21:35	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 21:35	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 21:35	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 21:35	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 21:35	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 21:35	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 21:35	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			3/13/13 21:35	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 21:35	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 21:35	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 21:35	DRS	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 21:35	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			3/13/13 21:35	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			3/13/13 21:35	DRS	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 21:35	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			3/13/13 21:35	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 21:35	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 21:35	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 21:35	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 21:35	DRS	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			3/13/13 21:35	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			3/13/13 21:35	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			3/13/13 21:35	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 21:35	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			3/13/13 21:35	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 21:35	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 21:35	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 21:35	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 21:35	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 21:35	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 21:35	DRS	A
Tetrahydrofuran	2.4J	ug/L		2.5	0.81	EPA 524.2			3/13/13 21:35	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 21:35	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016000 Drinking Water (03/08/13)

Lab ID: **1016000004** Date Collected: 3/8/2013 10:45 Matrix: Water

Sample ID: **DW-004H_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			3/13/13 21:35	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 21:35	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 21:35	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 21:35	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 21:35	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 21:35	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 21:35	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			3/13/13 21:35	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 21:35	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 21:35	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 21:35	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 21:35	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 21:35	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	93.2	%		70-130		EPA 524.2			3/13/13 21:35	DRS	A
4-Bromofluorobenzene (S)	89.9	%		70-130		EPA 524.2			3/13/13 21:35	DRS	A
1,2-Dichlorobenzene-d4 (S)	98.6	%		70-130		EPA 524.2			3/13/13 22:01	DRS	A
4-Bromofluorobenzene (S)	98.9	%		70-130		EPA 524.2			3/13/13 22:01	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1016000 Drinking Water (03/08/13)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte n-Butylbenzene. The % Recovery was reported as 69.8 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte 1-Chlorobutane. The % Recovery was reported as 58.9 and the control limits were 70 to 130.

[3] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 67.6 and the control limits were 70 to 130.

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
1016000

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Address: 6901 Kingsessing Ave. Phila. PA 19142
Phone: 215-729-3300
Bill to (If different than Report to): Same
PO#: 7902
Project Name/#: Calvert Citgo/5977 ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5 day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? X: bmacphail@repsg.com; jmanuel@repsg.com
Fax? Y/N No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis	Residual Chlorine	VOC's by 524.2 including Fuel Oxygenates	***Container Type	***Container Size	Preservative	**
1	DW-0046	Pre Vapor/Pre Carbon	3/6/13	1100	G	DW	1	2		Poly	Voa	HCL	
2	DW-0047	Post Vapor/Pre Carbon	3/6/13	1055	G	DW	1	2			40ml		
3	DW-0046	Post Vapor/Mid Carbon	3/6/13	1050	G	DW	1	2					
4	DW-0048	Post Vapor/Post Carbon	3/6/13	1045	G	DW	1	2					
5													
6													
7													
8													
9													
10													

SAMPLED BY (Please Print): M. Ramani
LOGGED BY(signature): DATE 3/6/13
REVIEWED BY(signature): DATE 3/6/13

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	3/6/13	1536	2	3/6	1530
3	3/6/13	1752	4	3/6	1820
5	3/6	1952	6	3/6	2000
7			8		
9			10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Format? yes; Other
State Samples Collected In? MD; NJ; NY; PA
EDDs: Required; yes, format type:
Equis
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Custody seals Present? Y N
(If present) Seals Intact? Y N
Received on Ice? Y N
COC/Labels complete/accurate? Y N
Container in good condition? Y N
Circle appropriate Y or N.
Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N

Cooler Temp: Therm. ID:
No. of Coolers:
Notes:
Intended for Sample Receipt? Preferred Yr: Alternate Yr:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

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August 23, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9983225**
Purchase Order:	**7205**	Workorder ID:	**Calvert Citgo/5977**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, August 15, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 9983225 Calvert Citgo/5977 Discard Date: 09/06/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9983225001	DW-005A	Water	8/14/12 10:00	8/15/12 22:50	Customer
9983225002	DW-005F	Water	8/14/12 09:50	8/15/12 22:50	Customer
9983225003	DW-005G	Water	8/14/12 09:40	8/15/12 22:50	Customer
9983225004	DW-005H	Water	8/14/12 09:30	8/15/12 22:50	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225001** Date Collected: 8/14/2012 10:00 Matrix: Water

Sample ID: **DW-005A** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			8/17/12 16:15	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 16:15	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 16:15	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			8/17/12 16:15	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 16:15	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/17/12 16:15	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 16:15	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B
Bromoform	0.82	ug/L		0.50	0.23	EPA 524.2			8/17/12 16:15	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 16:15	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			8/17/12 16:15	JAH	B
tert-Butyl Alcohol	2650	ug/L		250	70.0	EPA 524.2			8/20/12 19:52	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 16:15	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 16:15	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 16:15	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 16:15	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 16:15	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 16:15	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 16:15	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/17/12 16:15	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 16:15	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 16:15	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 16:15	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 16:15	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 16:15	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 16:15	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 16:15	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 16:15	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/17/12 16:15	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/17/12 16:15	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 16:15	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
1,2-Dichloroethane	7.8	ug/L		0.50	0.15	EPA 524.2			8/17/12 16:15	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225001** Date Collected: 8/14/2012 10:00 Matrix: Water

Sample ID: **DW-005A** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 16:15	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 16:15	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 16:15	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 16:15	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 16:15	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 16:15	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 16:15	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 16:15	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/17/12 16:15	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 16:15	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 16:15	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 16:15	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 16:15	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/17/12 16:15	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/17/12 16:15	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 16:15	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/17/12 16:15	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 16:15	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 16:15	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 16:15	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 16:15	JAH	B
Methyl t-Butyl Ether	455	ug/L		25.0	4.5	EPA 524.2			8/20/12 19:52	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/17/12 16:15	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/17/12 16:15	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 16:15	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/17/12 16:15	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/17/12 16:15	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 16:15	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/17/12 16:15	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 16:15	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 16:15	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 16:15	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			8/17/12 16:15	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 16:15	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225001** Date Collected: 8/14/2012 10:00 Matrix: Water

Sample ID: **DW-005A** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	0.49J	ug/L		1.5	0.27	EPA 524.2			8/17/12 16:15	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 16:15	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 16:15	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 16:15	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 16:15	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 16:15	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 16:15	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/17/12 16:15	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 16:15	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 16:15	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 16:15	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 16:15	JAH	B
mp-Xylene	0.49J	ug/L		1.0	0.21	EPA 524.2			8/17/12 16:15	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.8	%		70-130		EPA 524.2			8/17/12 16:15	JAH	B
4-Bromofluorobenzene (S)	81.2	%		70-130		EPA 524.2			8/17/12 16:15	JAH	B
1,2-Dichlorobenzene-d4 (S)	90.8	%		70-130		EPA 524.2			8/20/12 19:52	JAH	B
4-Bromofluorobenzene (S)	88.3	%		70-130		EPA 524.2			8/20/12 19:52	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225002** Date Collected: 8/14/2012 09:50 Matrix: Water

Sample ID: **DW-005F** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	91.9	ug/L		5.0	2.2	EPA 524.2			8/21/12 18:40	JAH	C
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/21/12 18:40	JAH	C
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 18:40	JAH	C
tert-Amyl Alcohol	71.1	ug/L		5.0	1.6	EPA 524.2			8/21/12 18:40	JAH	C
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/21/12 18:40	JAH	C
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/21/12 18:40	JAH	C
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 18:40	JAH	C
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 18:40	JAH	C
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 18:40	JAH	C
2-Butanone	45.9	ug/L		2.5	1.3	EPA 524.2			8/21/12 18:40	JAH	C
tert-Butyl Alcohol	2160	ug/L		125	35.0	EPA 524.2			8/21/12 19:06	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 18:40	JAH	C
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 18:40	JAH	C
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/21/12 18:40	JAH	C
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 18:40	JAH	C
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 18:40	JAH	C
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/21/12 18:40	JAH	C
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 18:40	JAH	C
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/21/12 18:40	JAH	C
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 18:40	JAH	C
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 18:40	JAH	C
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/21/12 18:40	JAH	C
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 18:40	JAH	C
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/21/12 18:40	JAH	C
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 18:40	JAH	C
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 18:40	JAH	C
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 18:40	JAH	C
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/21/12 18:40	JAH	C
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/21/12 18:40	JAH	C
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 18:40	JAH	C
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
Dichlorodifluoromethane	ND	ug/L	3	0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 18:40	JAH	C
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225002** Date Collected: 8/14/2012 09:50 Matrix: Water

Sample ID: **DW-005F** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 18:40	JAH	C
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 18:40	JAH	C
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 18:40	JAH	C
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 18:40	JAH	C
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 18:40	JAH	C
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/21/12 18:40	JAH	C
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/21/12 18:40	JAH	C
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 18:40	JAH	C
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/21/12 18:40	JAH	C
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 18:40	JAH	C
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/21/12 18:40	JAH	C
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
Ethylbenzene	0.62	ug/L		0.50	0.18	EPA 524.2			8/21/12 18:40	JAH	C
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/21/12 18:40	JAH	C
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/21/12 18:40	JAH	C
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/21/12 18:40	JAH	C
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/21/12 18:40	JAH	C
Isopropyl Alcohol	50.4	ug/L		25.0	3.9	EPA 524.2			8/21/12 18:40	JAH	C
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 18:40	JAH	C
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/21/12 18:40	JAH	C
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 18:40	JAH	C
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/21/12 18:40	JAH	C
Methyl t-Butyl Ether	3.8	ug/L		0.50	0.090	EPA 524.2			8/21/12 18:40	JAH	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/21/12 18:40	JAH	C
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/21/12 18:40	JAH	C
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 18:40	JAH	C
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/21/12 18:40	JAH	C
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/21/12 18:40	JAH	C
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 18:40	JAH	C
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/21/12 18:40	JAH	C
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/21/12 18:40	JAH	C
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/21/12 18:40	JAH	C
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/21/12 18:40	JAH	C
Tetrahydrofuran	22.0	ug/L		2.5	0.81	EPA 524.2			8/21/12 18:40	JAH	C
Toluene	0.14J	ug/L		0.50	0.12	EPA 524.2			8/21/12 18:40	JAH	C

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225002** Date Collected: 8/14/2012 09:50 Matrix: Water

Sample ID: **DW-005F** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	2.5	ug/L		1.5	0.27	EPA 524.2			8/21/12 18:40	JAH	C
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 18:40	JAH	C
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/21/12 18:40	JAH	C
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/21/12 18:40	JAH	C
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/21/12 18:40	JAH	C
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/21/12 18:40	JAH	C
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/21/12 18:40	JAH	C
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/21/12 18:40	JAH	C
1,2,4-Trimethylbenzene	0.37J	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
1,3,5-Trimethylbenzene	0.59	ug/L		0.50	0.11	EPA 524.2			8/21/12 18:40	JAH	C
Vinyl Acetate	ND	ug/L	4	0.50	0.22	EPA 524.2			8/21/12 18:40	JAH	C
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/21/12 18:40	JAH	C
o-Xylene	0.58	ug/L		0.50	0.12	EPA 524.2			8/21/12 18:40	JAH	C
mp-Xylene	1.9	ug/L		1.0	0.21	EPA 524.2			8/21/12 18:40	JAH	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	88.3	%		70-130		EPA 524.2			8/21/12 18:40	JAH	C
4-Bromofluorobenzene (S)	90.5	%		70-130		EPA 524.2			8/21/12 18:40	JAH	C
1,2-Dichlorobenzene-d4 (S)	85.5	%		70-130		EPA 524.2			8/21/12 19:06	JAH	C
4-Bromofluorobenzene (S)	89.6	%		70-130		EPA 524.2			8/21/12 19:06	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	0.16	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225003** Date Collected: 8/14/2012 09:40 Matrix: Water

Sample ID: **DW-005G** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.5J	ug/L		5.0	2.2	EPA 524.2			8/17/12 17:07	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 17:07	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 17:07	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			8/17/12 17:07	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 17:07	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/17/12 17:07	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 17:07	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 17:07	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 17:07	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			8/17/12 17:07	JAH	B
tert-Butyl Alcohol	2190	ug/L		250	70.0	EPA 524.2			8/20/12 20:18	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 17:07	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 17:07	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 17:07	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 17:07	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 17:07	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/17/12 17:07	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 17:07	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/17/12 17:07	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 17:07	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 17:07	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 17:07	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 17:07	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 17:07	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 17:07	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 17:07	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 17:07	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/17/12 17:07	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/17/12 17:07	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 17:07	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 17:07	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225003** Date Collected: 8/14/2012 09:40 Matrix: Water

Sample ID: **DW-005G** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 17:07	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 17:07	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 17:07	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 17:07	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 17:07	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 17:07	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 17:07	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 17:07	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/17/12 17:07	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 17:07	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/17/12 17:07	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 17:07	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			8/17/12 17:07	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/17/12 17:07	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/17/12 17:07	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/17/12 17:07	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/17/12 17:07	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 17:07	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/17/12 17:07	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 17:07	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 17:07	JAH	B
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			8/17/12 17:07	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/17/12 17:07	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/17/12 17:07	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 17:07	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/17/12 17:07	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/17/12 17:07	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 17:07	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/17/12 17:07	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/17/12 17:07	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/17/12 17:07	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/17/12 17:07	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			8/17/12 17:07	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 17:07	JAH	B

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225003** Date Collected: 8/14/2012 09:40 Matrix: Water

Sample ID: **DW-005G** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/17/12 17:07	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 17:07	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/17/12 17:07	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/17/12 17:07	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/17/12 17:07	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/17/12 17:07	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/17/12 17:07	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/17/12 17:07	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/17/12 17:07	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/17/12 17:07	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/17/12 17:07	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/17/12 17:07	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/17/12 17:07	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	82.3	%		70-130		EPA 524.2			8/17/12 17:07	JAH	B
4-Bromofluorobenzene (S)	82.8	%		70-130		EPA 524.2			8/17/12 17:07	JAH	B
1,2-Dichlorobenzene-d4 (S)	88.1	%		70-130		EPA 524.2			8/20/12 20:18	JAH	B
4-Bromofluorobenzene (S)	82.4	%		70-130		EPA 524.2			8/20/12 20:18	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225004** Date Collected: 8/14/2012 09:30 Matrix: Water

Sample ID: **DW-005H** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	17.6	ug/L		5.0	2.2	EPA 524.2			8/20/12 19:26	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/20/12 19:26	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			8/20/12 19:26	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			8/20/12 19:26	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			8/20/12 19:26	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			8/20/12 19:26	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			8/20/12 19:26	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			8/20/12 19:26	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			8/20/12 19:26	JAH	B
2-Butanone	45.1	ug/L		2.5	1.3	EPA 524.2			8/20/12 19:26	JAH	B
tert-Butyl Alcohol	ND	ug/L		5.0	1.4	EPA 524.2			8/20/12 19:26	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/20/12 19:26	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			8/20/12 19:26	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/20/12 19:26	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			8/20/12 19:26	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			8/20/12 19:26	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			8/20/12 19:26	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/20/12 19:26	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			8/20/12 19:26	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			8/20/12 19:26	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			8/20/12 19:26	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			8/20/12 19:26	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			8/20/12 19:26	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			8/20/12 19:26	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			8/20/12 19:26	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			8/20/12 19:26	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			8/20/12 19:26	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			8/20/12 19:26	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			8/20/12 19:26	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			8/20/12 19:26	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
Dichlorodifluoromethane	ND	ug/L	2	0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/20/12 19:26	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225004** Date Collected: 8/14/2012 09:30 Matrix: Water

Sample ID: **DW-005H** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			8/20/12 19:26	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			8/20/12 19:26	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			8/20/12 19:26	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			8/20/12 19:26	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			8/20/12 19:26	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			8/20/12 19:26	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			8/20/12 19:26	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			8/20/12 19:26	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			8/20/12 19:26	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			8/20/12 19:26	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			8/20/12 19:26	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			8/20/12 19:26	JAH	B
Hexachlorobutadiene	0.26J	ug/L		0.50	0.24	EPA 524.2			8/20/12 19:26	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			8/20/12 19:26	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			8/20/12 19:26	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			8/20/12 19:26	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			8/20/12 19:26	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/20/12 19:26	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			8/20/12 19:26	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			8/20/12 19:26	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			8/20/12 19:26	JAH	B
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			8/20/12 19:26	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			8/20/12 19:26	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			8/20/12 19:26	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			8/20/12 19:26	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			8/20/12 19:26	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			8/20/12 19:26	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			8/20/12 19:26	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			8/20/12 19:26	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			8/20/12 19:26	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			8/20/12 19:26	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			8/20/12 19:26	JAH	B
Tetrahydrofuran	40.2	ug/L		2.5	0.81	EPA 524.2			8/20/12 19:26	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			8/20/12 19:26	JAH	B

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ANALYTICAL RESULTS

Workorder: 9983225 Calvert Citgo/5977

Lab ID: **9983225004** Date Collected: 8/14/2012 09:30 Matrix: Water

Sample ID: **DW-005H** Date Received: 8/15/2012 22:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			8/20/12 19:26	JAH	B
1,2,3-Trichlorobenzene	0.49J	ug/L		0.50	0.23	EPA 524.2			8/20/12 19:26	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			8/20/12 19:26	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			8/20/12 19:26	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			8/20/12 19:26	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			8/20/12 19:26	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			8/20/12 19:26	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			8/20/12 19:26	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			8/20/12 19:26	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			8/20/12 19:26	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			8/20/12 19:26	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			8/20/12 19:26	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			8/20/12 19:26	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	85.9	%		70-130		EPA 524.2			8/20/12 19:26	JAH	B
4-Bromofluorobenzene (S)	81.9	%		70-130		EPA 524.2			8/20/12 19:26	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			8/16/12 02:10	MBW	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9983225 Calvert Citgo/5977

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 66.1 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 61.9 and the control limits were 70 to 130.

[3] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 69.5 and the control limits were 70 to 130.

[4] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Vinyl Acetate. The % Recovery was reported as 67.9 and the control limits were 70 to 130.

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Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

9983225

Co. Name: PEPSG, Inc.
Contact (Report to): Brenda Kellogg
Address: 6901 Kingsessing Ave. Phila, PA 19142
Phone: (215) 729-3220

Bill to (if different than Report to): Same
PO#: 7205

Project Name/#: Calvert Citgo/5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is ~~10-12 business days.~~ 5 day
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [X] -Y jmanuel@repsg.com; bmacphail@repsg.com
Fax? [ ] -Y No.:

	Container Type	Container Size	Preservative
Residual Chlorine	Poly	500mL	UP
VOC's By 524.2 Including Fuel Oxygenates	Voa	40mL	ASC/HCL

ANALYSES/METHOD REQUESTED

#	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Residual Chlorine	VOC's By 524.2 Including Fuel Oxygenates
1	DW-005A	Pre-Vapor/ Pre-Carbon	8/14/12	1000	G	DW	1	2
2	DW-005F	Post-Vapor/ Pre-Carbon	8/14/12	950	G	DW	1	2
3	DW-005G	Post-Vapor/ Mid-Carbon	8/14/12	940	G	DW	1	2
4	DW-005H	Post-Vapor/ Post-Carbon	8/14/12	930	G	DW	1	2
5								
6								
7								
8								

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 1°C
Therm. ID: TH-25
No. of Coolers:
Notes:

Circle appropriate Y or N.

Correct containers?	Y	N
Correct sample volume?	Y	N
Correct preservation?	Y	N
Headspace/Volatiles?	Y	N
Custody seals Present?	Y	N
(if present) Seals intact?	Y	N
Received on ice?	Y	N
COC/Labels complete/accurate?	Y	N
Container in good condition?	Y	N

SAMPLED BY (Please Print): M. Ramon
LOGGED BY(signature): K. Shaw DATE 8/16/12 TIME 0918
REVIEWED BY(signature): DATE TIME

#	Relinquished By / Company Name	Date	Time	#	Received By / Company Name	Date	Time
1	[signature]	8/15/12	10:45	2	D. Tauber	8/15	1645
3	D. Taub	8/15	1745	4	Herzon R	8/15	2210
5	Herzon R	8/15	10:50	6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ]
EDDs Required? [X] If yes, format type: EQUIS
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
⇒Enter PWSID No
DOD Criteria Required?

ALSI FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 6/07

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September 25, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9988406**
Purchase Order:	**7289**	Workorder ID:	**Drinking Water (09/14/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, September 14, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 9988406 Drinking Water (09/14/12) Discard Date: 10/09/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9988406001	DW-005A	Water	9/14/12 09:30	9/14/12 20:10	Customer
9988406002	DW-005F	Water	9/14/12 09:40	9/14/12 20:10	Customer
9988406003	DW-005G	Water	9/14/12 09:50	9/14/12 20:10	Customer
9988406004	DW-005H	Water	9/14/12 10:00	9/14/12 20:10	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406001** Date Collected: 9/14/2012 09:30 Matrix: Water

Sample ID: **DW-005A** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	20.1	ug/L		5.0	2.2	EPA 524.2			9/22/12 19:09	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 19:09	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 19:09	JAH	B
tert-Amyl Alcohol	111	ug/L		5.0	1.6	EPA 524.2			9/22/12 19:09	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 19:09	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/22/12 19:09	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 19:09	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 19:09	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 19:09	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			9/22/12 19:09	JAH	B
tert-Butyl Alcohol	3030	ug/L		250	70.0	EPA 524.2			9/25/12 03:24	DD	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 19:09	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 19:09	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 19:09	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 19:09	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 19:09	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 19:09	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 19:09	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/22/12 19:09	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 19:09	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 19:09	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 19:09	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 19:09	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 19:09	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 19:09	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 19:09	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 19:09	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/22/12 19:09	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/22/12 19:09	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 19:09	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
1,2-Dichloroethane	8.8	ug/L		0.50	0.15	EPA 524.2			9/22/12 19:09	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406001** Date Collected: 9/14/2012 09:30 Matrix: Water

Sample ID: **DW-005A** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 19:09	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 19:09	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 19:09	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 19:09	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 19:09	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 19:09	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 19:09	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 19:09	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/22/12 19:09	JAH	B
Ethyl Ether	0.53	ug/L		0.50	0.21	EPA 524.2			9/22/12 19:09	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 19:09	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 19:09	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 19:09	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/22/12 19:09	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/22/12 19:09	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 19:09	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/22/12 19:09	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 19:09	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 19:09	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 19:09	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 19:09	JAH	B
Methyl t-Butyl Ether	538	ug/L		25.0	4.5	EPA 524.2			9/25/12 03:24	DD	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/22/12 19:09	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/22/12 19:09	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 19:09	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/22/12 19:09	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/22/12 19:09	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 19:09	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/22/12 19:09	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 19:09	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 19:09	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 19:09	JAH	B
Tetrahydrofuran	6.6	ug/L	1	2.5	0.81	EPA 524.2			9/22/12 19:09	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 19:09	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406001** Date Collected: 9/14/2012 09:30 Matrix: Water

Sample ID: **DW-005A** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/22/12 19:09	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 19:09	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 19:09	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 19:09	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 19:09	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 19:09	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 19:09	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/22/12 19:09	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 19:09	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 19:09	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 19:09	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 19:09	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 19:09	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	77.3	%		70-130		EPA 524.2			9/22/12 19:09	JAH	B
4-Bromofluorobenzene (S)	89.4	%		70-130		EPA 524.2			9/22/12 19:09	JAH	B
1,2-Dichlorobenzene-d4 (S)	90.6	%		70-130		EPA 524.2			9/25/12 03:24	DD	C
4-Bromofluorobenzene (S)	79.8	%		70-130		EPA 524.2			9/25/12 03:24	DD	C
WET CHEMISTRY											
Chlorine, Total Residual	0.034J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406002** Date Collected: 9/14/2012 09:40 Matrix: Water

Sample ID: **DW-005F** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	90.6	ug/L		5.0	2.2	EPA 524.2			9/22/12 06:05	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 06:05	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:05	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			9/22/12 06:05	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 06:05	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/22/12 06:05	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:05	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:05	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:05	JAH	B
2-Butanone	7.6	ug/L		2.5	1.3	EPA 524.2			9/22/12 06:05	JAH	B
tert-Butyl Alcohol	1750	ug/L		250	70.0	EPA 524.2			9/24/12 16:20	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:05	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:05	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 06:05	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:05	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:05	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 06:05	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:05	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/22/12 06:05	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:05	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:05	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 06:05	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:05	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 06:05	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:05	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:05	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:05	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/22/12 06:05	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/22/12 06:05	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:05	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
1,2-Dichloroethane	1.9	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:05	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406002** Date Collected: 9/14/2012 09:40 Matrix: Water

Sample ID: **DW-005F** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:05	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:05	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:05	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:05	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:05	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 06:05	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 06:05	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:05	JAH	B
1,4-Dioxane	5.2	ug/L		4.0	1.5	EPA 524.2			9/22/12 06:05	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:05	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 06:05	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:05	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:05	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/22/12 06:05	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/22/12 06:05	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:05	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/22/12 06:05	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:05	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 06:05	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:05	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 06:05	JAH	B
Methyl t-Butyl Ether	118	ug/L		25.0	4.5	EPA 524.2			9/24/12 16:20	JAH	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/22/12 06:05	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/22/12 06:05	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:05	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/22/12 06:05	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/22/12 06:05	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:05	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/22/12 06:05	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 06:05	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:05	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 06:05	JAH	B
Tetrahydrofuran	4.0	ug/L		2.5	0.81	EPA 524.2			9/22/12 06:05	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 06:05	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406002** Date Collected: 9/14/2012 09:40 Matrix: Water

Sample ID: **DW-005F** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/22/12 06:05	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:05	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:05	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:05	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:05	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:05	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:05	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/22/12 06:05	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:05	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:05	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:05	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 06:05	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 06:05	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	88.1	%		70-130		EPA 524.2			9/22/12 06:05	JAH	B
4-Bromofluorobenzene (S)	84.6	%		70-130		EPA 524.2			9/22/12 06:05	JAH	B
1,2-Dichlorobenzene-d4 (S)	82.2	%		70-130		EPA 524.2			9/24/12 16:20	JAH	C
4-Bromofluorobenzene (S)	77.9	%		70-130		EPA 524.2			9/24/12 16:20	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	0.030J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406003** Date Collected: 9/14/2012 09:50 Matrix: Water

Sample ID: **DW-005G** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	8.7	ug/L		5.0	2.2	EPA 524.2			9/22/12 06:31	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 06:31	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:31	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			9/22/12 06:31	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 06:31	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/22/12 06:31	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:31	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:31	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:31	JAH	B
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			9/22/12 06:31	JAH	B
tert-Butyl Alcohol	1880	ug/L		250	70.0	EPA 524.2			9/24/12 16:47	JAH	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:31	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:31	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 06:31	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:31	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:31	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 06:31	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:31	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/22/12 06:31	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:31	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:31	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 06:31	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:31	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 06:31	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:31	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:31	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:31	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/22/12 06:31	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/22/12 06:31	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:31	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:31	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406003** Date Collected: 9/14/2012 09:50 Matrix: Water

Sample ID: **DW-005G** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:31	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:31	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:31	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:31	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:31	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 06:31	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 06:31	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:31	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/22/12 06:31	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:31	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 06:31	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:31	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 06:31	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/22/12 06:31	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/22/12 06:31	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 06:31	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/22/12 06:31	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:31	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 06:31	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:31	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 06:31	JAH	B
Methyl t-Butyl Ether	0.24J	ug/L		0.50	0.090	EPA 524.2			9/22/12 06:31	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/22/12 06:31	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/22/12 06:31	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:31	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/22/12 06:31	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/22/12 06:31	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:31	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/22/12 06:31	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 06:31	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 06:31	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 06:31	JAH	B
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			9/22/12 06:31	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 06:31	JAH	B

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406003** Date Collected: 9/14/2012 09:50 Matrix: Water

Sample ID: **DW-005G** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/22/12 06:31	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:31	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 06:31	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 06:31	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 06:31	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 06:31	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 06:31	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/22/12 06:31	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 06:31	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 06:31	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 06:31	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 06:31	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 06:31	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	84.9	%		70-130		EPA 524.2			9/22/12 06:31	JAH	B
4-Bromofluorobenzene (S)	82.7	%		70-130		EPA 524.2			9/22/12 06:31	JAH	B
1,2-Dichlorobenzene-d4 (S)	81.9	%		70-130		EPA 524.2			9/24/12 16:47	JAH	C
4-Bromofluorobenzene (S)	88.9	%		70-130		EPA 524.2			9/24/12 16:47	JAH	C
WET CHEMISTRY											
Chlorine, Total Residual	0.030J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406004** Date Collected: 9/14/2012 10:00 Matrix: Water

Sample ID: **DW-005H** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	10.7	ug/L		5.0	2.2	EPA 524.2			9/22/12 18:43	JAH	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 18:43	JAH	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 18:43	JAH	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			9/22/12 18:43	JAH	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 18:43	JAH	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			9/22/12 18:43	JAH	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 18:43	JAH	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 18:43	JAH	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 18:43	JAH	B
2-Butanone	14.3	ug/L		2.5	1.3	EPA 524.2			9/22/12 18:43	JAH	B
tert-Butyl Alcohol	424	ug/L		50.0	14.0	EPA 524.2			9/25/12 03:55	DD	C
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 18:43	JAH	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 18:43	JAH	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 18:43	JAH	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 18:43	JAH	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 18:43	JAH	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			9/22/12 18:43	JAH	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 18:43	JAH	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			9/22/12 18:43	JAH	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 18:43	JAH	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 18:43	JAH	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 18:43	JAH	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 18:43	JAH	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 18:43	JAH	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 18:43	JAH	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 18:43	JAH	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 18:43	JAH	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			9/22/12 18:43	JAH	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			9/22/12 18:43	JAH	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 18:43	JAH	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 18:43	JAH	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406004** Date Collected: 9/14/2012 10:00 Matrix: Water

Sample ID: **DW-005H** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 18:43	JAH	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 18:43	JAH	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 18:43	JAH	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 18:43	JAH	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 18:43	JAH	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 18:43	JAH	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 18:43	JAH	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 18:43	JAH	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			9/22/12 18:43	JAH	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 18:43	JAH	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			9/22/12 18:43	JAH	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 18:43	JAH	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			9/22/12 18:43	JAH	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			9/22/12 18:43	JAH	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			9/22/12 18:43	JAH	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			9/22/12 18:43	JAH	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			9/22/12 18:43	JAH	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 18:43	JAH	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			9/22/12 18:43	JAH	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 18:43	JAH	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 18:43	JAH	B
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			9/22/12 18:43	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			9/22/12 18:43	JAH	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			9/22/12 18:43	JAH	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 18:43	JAH	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			9/22/12 18:43	JAH	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			9/22/12 18:43	JAH	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 18:43	JAH	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			9/22/12 18:43	JAH	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			9/22/12 18:43	JAH	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			9/22/12 18:43	JAH	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			9/22/12 18:43	JAH	B
Tetrahydrofuran	153	ug/L	1	2.5	0.81	EPA 524.2			9/22/12 18:43	JAH	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 18:43	JAH	B

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ANALYTICAL RESULTS

Workorder: 9988406 Drinking Water (09/14/12)

Lab ID: **9988406004** Date Collected: 9/14/2012 10:00 Matrix: Water

Sample ID: **DW-005H** Date Received: 9/14/2012 20:10

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			9/22/12 18:43	JAH	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 18:43	JAH	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			9/22/12 18:43	JAH	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			9/22/12 18:43	JAH	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			9/22/12 18:43	JAH	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			9/22/12 18:43	JAH	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			9/22/12 18:43	JAH	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			9/22/12 18:43	JAH	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			9/22/12 18:43	JAH	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			9/22/12 18:43	JAH	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			9/22/12 18:43	JAH	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			9/22/12 18:43	JAH	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			9/22/12 18:43	JAH	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	83.5	%		70-130		EPA 524.2			9/22/12 18:43	JAH	B
4-Bromofluorobenzene (S)	93.1	%		70-130		EPA 524.2			9/22/12 18:43	JAH	B
1,2-Dichlorobenzene-d4 (S)	83.9	%		70-130		EPA 524.2			9/25/12 03:55	DD	C
4-Bromofluorobenzene (S)	70.7	%		70-130		EPA 524.2			9/25/12 03:55	DD	C
WET CHEMISTRY											
Chlorine, Total Residual	0.026J	mg/L		0.10	0.01	SM20-4500-Cl G			9/15/12 04:00	MSA	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9988406 Drinking Water (09/14/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Tetrahydrofuran. The % Recovery was reported as 133 and the control limits were 70 to 130.

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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: (215) 628-3820
Address: 6901 Kingsessing Ave. Phila, PA 19142

Bill to (if different than Report to): Same
PO#: 7289

Project Name/#: Calvert Citgo/5977
ALSI Quote #:

TAT: Normal-Standard TAT is 10 business days. 5-day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? Y bmacphail@repsg.com jmcnutt@repsg.com
Fax? Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	"Matrix" G or C	"Container Type	"Container Size	Preservative	ANALYSES/METHOD REQUESTED	Enter Number of Containers Per Analysis
1 DW-005A	Pre-Vapor/Pre-Carbon	9-4-12	9:30	G DW	P/V	500mL	UP	Residual Chlorine VOC's by 524.2 including Fuel Oxygenates	1 2
2 DW-005F	Post-Vapor/Pre-Carbon	9-4-12	9:40	G DW	V	40mL	HCl/ASC		1 2
3 DW-005G	Post-Vapor/Mid-Carbon	9-4-12	9:50	G DW	V				1 2
4 DW-005H	Post-Vapor/Post-Carbon	9-4-12	10:00	G DW	V				1 2
5									
6									
7									
8									

SAMPLED BY (Please Print): T. Kleebler

LOGGED BY (signature):
REVIEWED BY (signature):

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	9-4-12	1430	2	9-4-12	1430
3	9-4	1730	4		
5	9/4	2010	6		
7			8		
9			10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; If yes, format type: EQUIS
SDWA Forms? yes
State Samples Collected In? MD NJ NY PA Other
Central PWSID No.
EDDs Required? X
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Custody seals Present? N
(if present) Seals Intact? N
Received on Ice? Y N
COC/Labels complete/accurate? Y N
Headspace/Volatiles? Y N
Correct preservation? Y N
Correct sample volume? Y N
Correct containers? Y N
Circle appropriate Y or N.
Container in good condition? Y N

Receipt Information (completed by Sample Receipt)
Preserved in: ICE
Cooler Temp: 1.2
Therm. ID: THERMS
No. of Coolers: 1
Notes:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

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October 25, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9994540**
Purchase Order:	**7468**	Workorder ID:	**Drinking Water (10/19/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, October 19, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 9994540 Drinking Water (10/19/12) Discard Date: 11/08/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9994540001	DW-005A_20121019_N	Water	10/19/12 09:15	10/19/12 22:15	Bradley Musser
9994540002	DW-005F_20121019_N	Water	10/19/12 09:20	10/19/12 22:15	Bradley Musser
9994540003	DW-005G_20121019_N	Water	10/19/12 09:25	10/19/12 22:15	Bradley Musser
9994540004	DW-005H_20121019_N	Water	10/19/12 09:30	10/19/12 22:15	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540001** Date Collected: 10/19/2012 09:15 Matrix: Water

Sample ID: **DW-005A_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 16:49	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 16:49	JAH	A
tert-Amyl methyl ether	4.1	ug/L		0.50	0.15	EPA 524.2			10/24/12 16:49	JAH	A
tert-Amyl Alcohol	79.2	ug/L		5.0	1.6	EPA 524.2			10/24/12 16:49	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 16:49	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 16:49	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 16:49	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 16:49	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 16:49	JAH	A
2-Butanone	2.3J	ug/L		2.5	1.3	EPA 524.2			10/24/12 16:49	JAH	A
tert-Butyl Alcohol	1890	ug/L		100	28.0	EPA 524.2			10/25/12 09:33	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 16:49	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 16:49	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 16:49	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 16:49	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 16:49	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 16:49	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 16:49	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 16:49	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 16:49	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 16:49	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 16:49	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 16:49	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 16:49	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 16:49	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 16:49	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 16:49	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 16:49	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 16:49	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 16:49	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
1,4-Dichlorobenzene	0.14J	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
1,2-Dichloroethane	5.6	ug/L		0.50	0.15	EPA 524.2			10/24/12 16:49	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540001** Date Collected: 10/19/2012 09:15 Matrix: Water

Sample ID: **DW-005A_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 16:49	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 16:49	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 16:49	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 16:49	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 16:49	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 16:49	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 16:49	JAH	A
Diisopropyl ether	3.5	ug/L		0.50	0.21	EPA 524.2			10/24/12 16:49	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 16:49	JAH	A
Ethyl Ether	0.40J	ug/L		0.50	0.21	EPA 524.2			10/24/12 16:49	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 16:49	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 16:49	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 16:49	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 16:49	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 16:49	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 16:49	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 16:49	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 16:49	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 16:49	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 16:49	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 16:49	JAH	A
Methyl t-Butyl Ether	401	ug/L		10.0	1.8	EPA 524.2			10/25/12 09:33	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 16:49	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 16:49	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 16:49	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 16:49	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 16:49	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 16:49	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 16:49	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 16:49	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 16:49	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 16:49	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			10/24/12 16:49	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 16:49	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540001** Date Collected: 10/19/2012 09:15 Matrix: Water

Sample ID: **DW-005A_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 16:49	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 16:49	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 16:49	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 16:49	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 16:49	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 16:49	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 16:49	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 16:49	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 16:49	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 16:49	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 16:49	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 16:49	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 16:49	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	94.3	%		70-130		EPA 524.2			10/24/12 16:49	JAH	A
4-Bromofluorobenzene (S)	83.4	%		70-130		EPA 524.2			10/24/12 16:49	JAH	A
1,2-Dichlorobenzene-d4 (S)	94.3	%		70-130		EPA 524.2			10/25/12 09:33	JAH	B
4-Bromofluorobenzene (S)	86.3	%		70-130		EPA 524.2			10/25/12 09:33	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540002** Date Collected: 10/19/2012 09:20 Matrix: Water

Sample ID: **DW-005F_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	30.5	ug/L		5.0	2.2	EPA 524.2			10/24/12 17:15	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 17:15	JAH	A
tert-Amyl methyl ether	0.33J	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:15	JAH	A
tert-Amyl Alcohol	65.4	ug/L		5.0	1.6	EPA 524.2			10/24/12 17:15	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 17:15	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 17:15	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:15	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:15	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:15	JAH	A
2-Butanone	5.5	ug/L		2.5	1.3	EPA 524.2			10/24/12 17:15	JAH	A
tert-Butyl Alcohol	1510	ug/L		100	28.0	EPA 524.2			10/25/12 09:59	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:15	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:15	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 17:15	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:15	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:15	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 17:15	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:15	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 17:15	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:15	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:15	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 17:15	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:15	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 17:15	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:15	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:15	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:15	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 17:15	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 17:15	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:15	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
1,2-Dichloroethane	0.32J	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:15	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A

ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540002** Date Collected: 10/19/2012 09:20 Matrix: Water

Sample ID: **DW-005F_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:15	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:15	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:15	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:15	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:15	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 17:15	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 17:15	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:15	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 17:15	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:15	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 17:15	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:15	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:15	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 17:15	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 17:15	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:15	JAH	A
Isopropyl Alcohol	6.9J	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 17:15	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:15	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 17:15	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:15	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 17:15	JAH	A
Methyl t-Butyl Ether	36.2	ug/L		10.0	1.8	EPA 524.2			10/25/12 09:59	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 17:15	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 17:15	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:15	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 17:15	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 17:15	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:15	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 17:15	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 17:15	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:15	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 17:15	JAH	A
Tetrahydrofuran	1.2J	ug/L		2.5	0.81	EPA 524.2			10/24/12 17:15	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 17:15	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540002** Date Collected: 10/19/2012 09:20 Matrix: Water

Sample ID: **DW-005F_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 17:15	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:15	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:15	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:15	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:15	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:15	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:15	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 17:15	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:15	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:15	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:15	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 17:15	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 17:15	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	99.2	%		70-130		EPA 524.2			10/24/12 17:15	JAH	A
4-Bromofluorobenzene (S)	85.8	%		70-130		EPA 524.2			10/24/12 17:15	JAH	A
1,2-Dichlorobenzene-d4 (S)	94.3	%		70-130		EPA 524.2			10/25/12 09:59	JAH	B
4-Bromofluorobenzene (S)	89.5	%		70-130		EPA 524.2			10/25/12 09:59	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	0.036J	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540003** Date Collected: 10/19/2012 09:25 Matrix: Water

Sample ID: **DW-005G_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 17:42	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 17:42	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:42	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			10/24/12 17:42	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 17:42	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 17:42	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:42	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:42	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:42	JAH	A
2-Butanone	3.1	ug/L		2.5	1.3	EPA 524.2			10/24/12 17:42	JAH	A
tert-Butyl Alcohol	1060	ug/L		100	28.0	EPA 524.2			10/25/12 10:25	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:42	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:42	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 17:42	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:42	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:42	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 17:42	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:42	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 17:42	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:42	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:42	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 17:42	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:42	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 17:42	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:42	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:42	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:42	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 17:42	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 17:42	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:42	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:42	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540003** Date Collected: 10/19/2012 09:25 Matrix: Water

Sample ID: **DW-005G_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:42	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:42	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:42	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:42	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:42	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 17:42	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 17:42	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:42	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 17:42	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:42	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 17:42	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:42	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 17:42	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 17:42	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 17:42	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 17:42	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 17:42	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:42	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 17:42	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:42	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 17:42	JAH	A
Methyl t-Butyl Ether	0.22J	ug/L		0.50	0.090	EPA 524.2			10/24/12 17:42	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 17:42	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 17:42	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:42	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 17:42	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 17:42	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:42	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 17:42	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 17:42	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 17:42	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 17:42	JAH	A
Tetrahydrofuran	2.9	ug/L		2.5	0.81	EPA 524.2			10/24/12 17:42	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 17:42	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540003** Date Collected: 10/19/2012 09:25 Matrix: Water

Sample ID: **DW-005G_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 17:42	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:42	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 17:42	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 17:42	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 17:42	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 17:42	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 17:42	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 17:42	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 17:42	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 17:42	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 17:42	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 17:42	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 17:42	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	95.9	%		70-130		EPA 524.2			10/24/12 17:42	JAH	A
4-Bromofluorobenzene (S)	83.5	%		70-130		EPA 524.2			10/24/12 17:42	JAH	A
1,2-Dichlorobenzene-d4 (S)	98.2	%		70-130		EPA 524.2			10/25/12 10:25	JAH	B
4-Bromofluorobenzene (S)	86.4	%		70-130		EPA 524.2			10/25/12 10:25	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540004** Date Collected: 10/19/2012 09:30 Matrix: Water

Sample ID: **DW-005H_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			10/24/12 18:08	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 18:08	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:08	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			10/24/12 18:08	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 18:08	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			10/24/12 18:08	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:08	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:08	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:08	JAH	A
2-Butanone	2.7	ug/L		2.5	1.3	EPA 524.2			10/24/12 18:08	JAH	A
tert-Butyl Alcohol	1770	ug/L		250	70.0	EPA 524.2			10/25/12 10:51	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:08	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:08	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 18:08	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:08	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:08	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			10/24/12 18:08	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:08	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			10/24/12 18:08	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:08	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:08	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 18:08	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:08	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 18:08	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:08	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:08	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:08	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			10/24/12 18:08	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			10/24/12 18:08	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:08	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:08	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540004** Date Collected: 10/19/2012 09:30 Matrix: Water

Sample ID: **DW-005H_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:08	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:08	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:08	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:08	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:08	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 18:08	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 18:08	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:08	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			10/24/12 18:08	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:08	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			10/24/12 18:08	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:08	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			10/24/12 18:08	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			10/24/12 18:08	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			10/24/12 18:08	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			10/24/12 18:08	JAH	A
Isopropyl Alcohol	ND	ug/L	1	25.0	3.9	EPA 524.2			10/24/12 18:08	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:08	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			10/24/12 18:08	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:08	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 18:08	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			10/24/12 18:08	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			10/24/12 18:08	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			10/24/12 18:08	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:08	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			10/24/12 18:08	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			10/24/12 18:08	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:08	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			10/24/12 18:08	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			10/24/12 18:08	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			10/24/12 18:08	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			10/24/12 18:08	JAH	A
Tetrahydrofuran	2.5	ug/L		2.5	0.81	EPA 524.2			10/24/12 18:08	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 18:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 9994540 Drinking Water (10/19/12)

Lab ID: **9994540004** Date Collected: 10/19/2012 09:30 Matrix: Water

Sample ID: **DW-005H_20121019_N** Date Received: 10/19/2012 22:15

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			10/24/12 18:08	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:08	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			10/24/12 18:08	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			10/24/12 18:08	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			10/24/12 18:08	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			10/24/12 18:08	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			10/24/12 18:08	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			10/24/12 18:08	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			10/24/12 18:08	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			10/24/12 18:08	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			10/24/12 18:08	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			10/24/12 18:08	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			10/24/12 18:08	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	98.2	%		70-130		EPA 524.2			10/24/12 18:08	JAH	A
4-Bromofluorobenzene (S)	89.2	%		70-130		EPA 524.2			10/24/12 18:08	JAH	A
1,2-Dichlorobenzene-d4 (S)	91.2	%		70-130		EPA 524.2			10/25/12 10:51	JAH	B
4-Bromofluorobenzene (S)	85.1	%		70-130		EPA 524.2			10/25/12 10:51	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			10/20/12 02:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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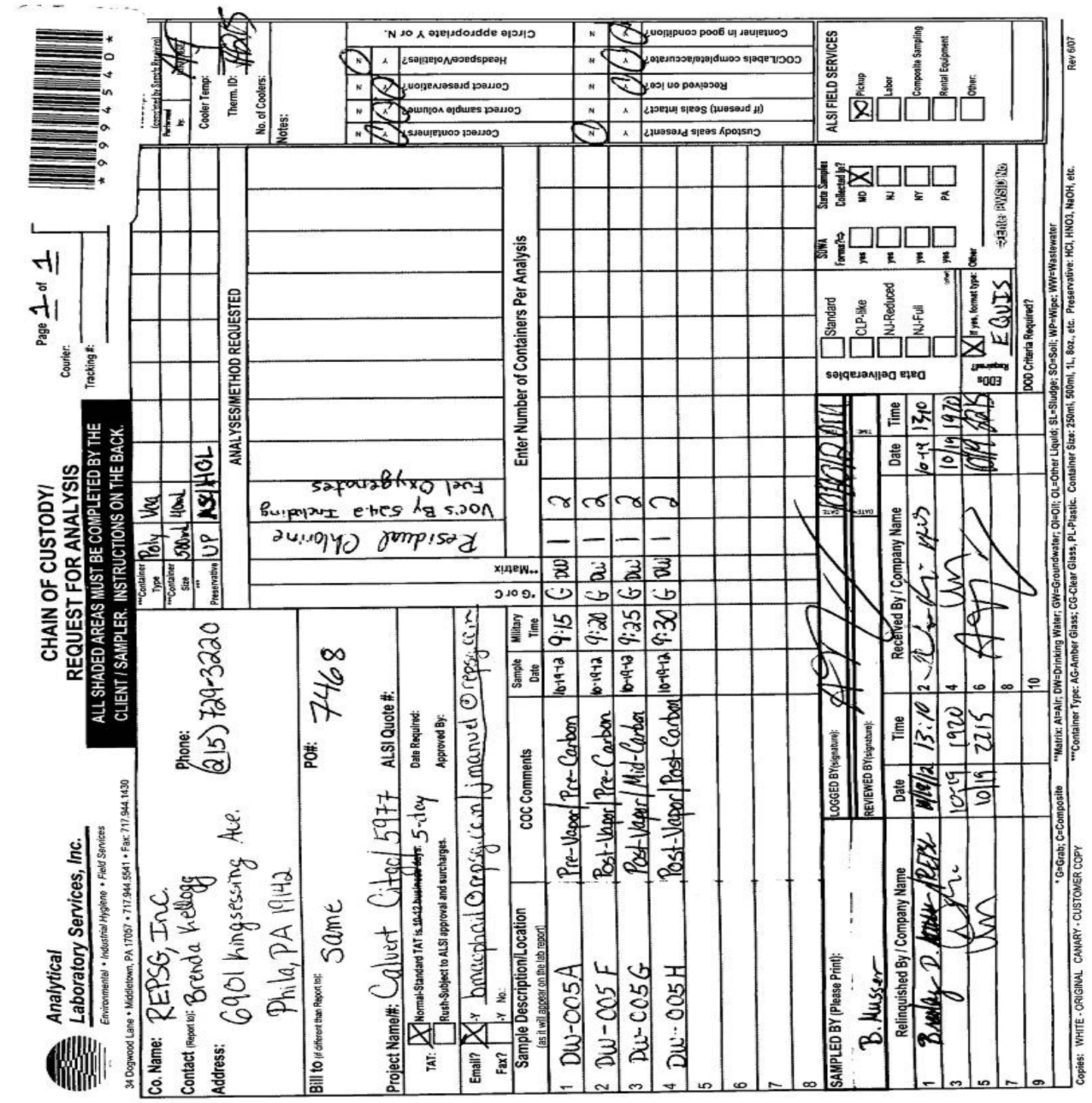
ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9994540 Drinking Water (10/19/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Isopropyl Alcohol. The % Recovery was reported as 61.9 and the control limits were 70 to 130.


CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.
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Page 1 of 1
Courier:
Tracking #:
9994540
Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (if different than Report to): Same
PO#: 7468
Project Name/#: Calvert City/5977
ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days: 5-day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? Y bmcphail@repsg.com jmanuel@repsg.com
Fax? Y No:
Sample Description/Location (as it will appear on the lab report)
COC Comments
Sample Date
Military Time
"Matrix
G or C
**Container Type
**Container Size
***
Preservative
Enter Number of Containers Per Analysis
Residual Chlorine
Users By Soda Ashing
Fuel Oxygenates
ANALYSES/METHOD REQUESTED
1 DW-005A Pre-Vapor/Pre-Carbon 10-9-12 9:15 G DW 1 2
2 DW-005F Post-Vapor/Pre-Carbon 10-9-12 9:20 G DW 1 2
3 DW-005G Post-Vapor/Mid-Carbon 10-9-12 9:25 G DW 1 2
4 DW-005H Post-Vapor/Post-Carbon 10-9-12 9:30 G DW 1 2
5
6
7
8
SAMPLED BY (Please Print): B. Musser
LOGGED BY(signature):
REVIEWED BY(signature):
Relinquished By / Company Name
Date
Time
Received By / Company Name
Date
Time
1 Brenda D. Kellogg/REPSG 10/9/12 13:10 2 10-10-12 13:10
3 10/9/12 1920 4 10/10 19:20
5 10/10 2215 6
7 8
9 10
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:
Circle appropriate Y or N.
Container In good condition?
COC/Labels complete/accurate?
Received on Ice?
(If present) Seals Intact?
Custody seals Present?
Correct sample volume?
Correct preservation?
Headspace/Volatiles?
Correct containers?
ALSI FIELD SERVICES
Pickup
Labor
Composite Sampling
Rental Equipment
Other:
Data Deliverables
Standard
CLP-like
NJ-Reduced
NJ-Full
SDWA Formats
State Samples Collected In?
MD
NJ
NY
PA
If yes, format type: Other
EDDs
EQUIS
State: PWSID/Nbr:
DOD Criteria Required?
*G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 6/07

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November 29, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**9999463**
Purchase Order:	**7569**	Workorder ID:	**Drinking Water (11/20/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, November 20, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 9999463 Drinking Water (11/20/12) Discard Date: 12/13/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9999463001	DW-005A_20121120_N	Water	11/20/12 09:20	11/20/12 22:00	Bradley Musser
9999463002	DW-005F_20121120_N	Water	11/20/12 09:40	11/20/12 22:00	Bradley Musser
9999463003	DW-005G_20121120_N	Water	11/20/12 09:30	11/20/12 22:00	Bradley Musser
9999463004	DW-005H_20121120_N	Water	11/20/12 09:50	11/20/12 22:00	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463001** Date Collected: 11/20/2012 09:20 Matrix: Water

Sample ID: **DW-005A_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			11/27/12 09:08	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/27/12 09:08	JAH	A
tert-Amyl methyl ether	3.2	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:08	JAH	A
tert-Amyl Alcohol	49.3	ug/L		5.0	1.6	EPA 524.2			11/27/12 09:08	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 09:08	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/27/12 09:08	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:08	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:08	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:08	JAH	A
2-Butanone	3.1	ug/L		2.5	1.3	EPA 524.2			11/27/12 09:08	JAH	A
tert-Butyl Alcohol	802	ug/L		250	70.0	EPA 524.2			11/29/12 00:40	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:08	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:08	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 09:08	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:08	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:08	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/27/12 09:08	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:08	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/27/12 09:08	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:08	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:08	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/27/12 09:08	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:08	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/27/12 09:08	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:08	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:08	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:08	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/27/12 09:08	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/27/12 09:08	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:08	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
1,4-Dichlorobenzene	0.22J	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A
1,1-Dichloroethane	0.24J	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
1,2-Dichloroethane	4.0	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:08	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463001** Date Collected: 11/20/2012 09:20 Matrix: Water

Sample ID: **DW-005A_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:08	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:08	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:08	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:08	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:08	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 09:08	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/27/12 09:08	JAH	A
Diisopropyl ether	3.0	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:08	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/27/12 09:08	JAH	A
Ethyl Ether	0.49J	ug/L	1	0.50	0.21	EPA 524.2			11/27/12 09:08	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/27/12 09:08	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:08	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:08	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/27/12 09:08	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/27/12 09:08	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:08	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/27/12 09:08	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:08	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/27/12 09:08	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:08	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			11/27/12 09:08	JAH	A
Methyl t-Butyl Ether	281	ug/L		25.0	4.5	EPA 524.2			11/29/12 00:40	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/27/12 09:08	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/27/12 09:08	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:08	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/27/12 09:08	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/27/12 09:08	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:08	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/27/12 09:08	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 09:08	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:08	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/27/12 09:08	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			11/27/12 09:08	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 09:08	JAH	A

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463001** Date Collected: 11/20/2012 09:20 Matrix: Water

Sample ID: **DW-005A_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/27/12 09:08	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:08	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:08	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:08	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:08	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:08	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:08	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/27/12 09:08	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:08	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:08	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:08	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 09:08	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/27/12 09:08	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	94.8	%		70-130		EPA 524.2			11/27/12 09:08	JAH	A
4-Bromofluorobenzene (S)	87.2	%		70-130		EPA 524.2			11/27/12 09:08	JAH	A
1,2-Dichlorobenzene-d4 (S)	78.1	%		70-130		EPA 524.2			11/29/12 00:40	TMP	B
4-Bromofluorobenzene (S)	77.7	%		70-130		EPA 524.2			11/29/12 00:40	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	0.032J	mg/L		0.10	0.01	SM20-4500-Cl G			11/21/12 03:20	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463002** Date Collected: 11/20/2012 09:40 Matrix: Water

Sample ID: **DW-005F_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			11/27/12 09:34	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/27/12 09:34	JAH	A
tert-Amyl methyl ether	3.6	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:34	JAH	A
tert-Amyl Alcohol	54.6	ug/L		5.0	1.6	EPA 524.2			11/27/12 09:34	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 09:34	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/27/12 09:34	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:34	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:34	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:34	JAH	A
2-Butanone	3.7	ug/L		2.5	1.3	EPA 524.2			11/27/12 09:34	JAH	A
tert-Butyl Alcohol	689	ug/L		250	70.0	EPA 524.2			11/29/12 01:11	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:34	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:34	JAH	A
sec-Butylbenzene	0.11J	ug/L		0.50	0.10	EPA 524.2			11/27/12 09:34	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:34	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:34	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/27/12 09:34	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:34	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/27/12 09:34	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:34	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:34	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/27/12 09:34	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:34	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/27/12 09:34	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:34	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:34	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:34	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/27/12 09:34	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/27/12 09:34	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:34	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
1,4-Dichlorobenzene	0.23J	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A
1,1-Dichloroethane	0.26J	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
1,2-Dichloroethane	4.6	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:34	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463002** Date Collected: 11/20/2012 09:40 Matrix: Water

Sample ID: **DW-005F_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:34	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:34	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:34	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:34	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:34	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 09:34	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/27/12 09:34	JAH	A
Diisopropyl ether	3.1	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:34	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/27/12 09:34	JAH	A
Ethyl Ether	0.66	ug/L	1	0.50	0.21	EPA 524.2			11/27/12 09:34	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/27/12 09:34	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:34	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 09:34	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/27/12 09:34	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/27/12 09:34	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 09:34	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/27/12 09:34	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:34	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/27/12 09:34	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:34	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			11/27/12 09:34	JAH	A
Methyl t-Butyl Ether	270	ug/L		25.0	4.5	EPA 524.2			11/29/12 01:11	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/27/12 09:34	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/27/12 09:34	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:34	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/27/12 09:34	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/27/12 09:34	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:34	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/27/12 09:34	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 09:34	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 09:34	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/27/12 09:34	JAH	A
Tetrahydrofuran	1.2J	ug/L		2.5	0.81	EPA 524.2			11/27/12 09:34	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 09:34	JAH	A

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463002** Date Collected: 11/20/2012 09:40 Matrix: Water

Sample ID: **DW-005F_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/27/12 09:34	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:34	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 09:34	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 09:34	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 09:34	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 09:34	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 09:34	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/27/12 09:34	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 09:34	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 09:34	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 09:34	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 09:34	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/27/12 09:34	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	95.3	%		70-130		EPA 524.2			11/27/12 09:34	JAH	A
4-Bromofluorobenzene (S)	91.9	%		70-130		EPA 524.2			11/27/12 09:34	JAH	A
1,2-Dichlorobenzene-d4 (S)	67.1	%	2	70-130		EPA 524.2			11/29/12 01:11	TMP	B
4-Bromofluorobenzene (S)	71.6	%		70-130		EPA 524.2			11/29/12 01:11	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	0.018J	mg/L		0.10	0.01	SM20-4500-Cl G			11/21/12 03:20	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463003** Date Collected: 11/20/2012 09:30 Matrix: Water

Sample ID: **DW-005G_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	23.9	ug/L		5.0	2.2	EPA 524.2			11/29/12 02:13	TMP	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/29/12 02:13	TMP	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			11/29/12 02:13	TMP	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			11/29/12 02:13	TMP	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/29/12 02:13	TMP	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/29/12 02:13	TMP	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/29/12 02:13	TMP	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/29/12 02:13	TMP	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/29/12 02:13	TMP	B
2-Butanone	3.1	ug/L		2.5	1.3	EPA 524.2			11/29/12 02:13	TMP	B
tert-Butyl Alcohol	754	ug/L		250	70.0	EPA 524.2			11/29/12 03:06	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/29/12 02:13	TMP	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/29/12 02:13	TMP	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/29/12 02:13	TMP	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/29/12 02:13	TMP	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/29/12 02:13	TMP	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/29/12 02:13	TMP	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/29/12 02:13	TMP	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/29/12 02:13	TMP	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/29/12 02:13	TMP	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/29/12 02:13	TMP	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/29/12 02:13	TMP	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/29/12 02:13	TMP	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/29/12 02:13	TMP	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/29/12 02:13	TMP	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/29/12 02:13	TMP	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/29/12 02:13	TMP	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/29/12 02:13	TMP	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/29/12 02:13	TMP	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/29/12 02:13	TMP	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/29/12 02:13	TMP	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463003** Date Collected: 11/20/2012 09:30 Matrix: Water

Sample ID: **DW-005G_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/29/12 02:13	TMP	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/29/12 02:13	TMP	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/29/12 02:13	TMP	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/29/12 02:13	TMP	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/29/12 02:13	TMP	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/29/12 02:13	TMP	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/29/12 02:13	TMP	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			11/29/12 02:13	TMP	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/29/12 02:13	TMP	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			11/29/12 02:13	TMP	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/29/12 02:13	TMP	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/29/12 02:13	TMP	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/29/12 02:13	TMP	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/29/12 02:13	TMP	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/29/12 02:13	TMP	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			11/29/12 02:13	TMP	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/29/12 02:13	TMP	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/29/12 02:13	TMP	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/29/12 02:13	TMP	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/29/12 02:13	TMP	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			11/29/12 02:13	TMP	B
Methyl t-Butyl Ether	0.21J	ug/L		0.50	0.090	EPA 524.2			11/29/12 02:13	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/29/12 02:13	TMP	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/29/12 02:13	TMP	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/29/12 02:13	TMP	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/29/12 02:13	TMP	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/29/12 02:13	TMP	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/29/12 02:13	TMP	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/29/12 02:13	TMP	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/29/12 02:13	TMP	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/29/12 02:13	TMP	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/29/12 02:13	TMP	B
Tetrahydrofuran	6.9	ug/L		2.5	0.81	EPA 524.2			11/29/12 02:13	TMP	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/29/12 02:13	TMP	B

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463003** Date Collected: 11/20/2012 09:30 Matrix: Water

Sample ID: **DW-005G_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/29/12 02:13	TMP	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/29/12 02:13	TMP	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/29/12 02:13	TMP	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/29/12 02:13	TMP	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/29/12 02:13	TMP	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/29/12 02:13	TMP	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/29/12 02:13	TMP	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/29/12 02:13	TMP	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/29/12 02:13	TMP	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/29/12 02:13	TMP	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/29/12 02:13	TMP	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/29/12 02:13	TMP	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/29/12 02:13	TMP	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	70.3	%		70-130		EPA 524.2			11/29/12 02:13	TMP	B
4-Bromofluorobenzene (S)	73.8	%		70-130		EPA 524.2			11/29/12 02:13	TMP	B
1,2-Dichlorobenzene-d4 (S)	54.3	%	4	70-130		EPA 524.2			11/29/12 03:06	TMP	B
4-Bromofluorobenzene (S)	60.5	%	3	70-130		EPA 524.2			11/29/12 03:06	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	0.032J	mg/L		0.10	0.01	SM20-4500-Cl G			11/21/12 03:20	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463004** Date Collected: 11/20/2012 09:50 Matrix: Water

Sample ID: **DW-005H_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	10.7	ug/L		5.0	2.2	EPA 524.2			11/27/12 10:27	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/27/12 10:27	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 10:27	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			11/27/12 10:27	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 10:27	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			11/27/12 10:27	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 10:27	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 10:27	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 10:27	JAH	A
2-Butanone	3.9	ug/L		2.5	1.3	EPA 524.2			11/27/12 10:27	JAH	A
tert-Butyl Alcohol	1130	ug/L		250	70.0	EPA 524.2			11/29/12 01:42	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 10:27	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 10:27	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 10:27	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 10:27	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 10:27	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			11/27/12 10:27	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 10:27	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			11/27/12 10:27	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 10:27	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 10:27	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			11/27/12 10:27	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 10:27	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			11/27/12 10:27	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 10:27	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 10:27	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 10:27	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			11/27/12 10:27	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			11/27/12 10:27	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 10:27	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 10:27	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463004** Date Collected: 11/20/2012 09:50 Matrix: Water

Sample ID: **DW-005H_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 10:27	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 10:27	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 10:27	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 10:27	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 10:27	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 10:27	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			11/27/12 10:27	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 10:27	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			11/27/12 10:27	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 10:27	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			11/27/12 10:27	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 10:27	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			11/27/12 10:27	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			11/27/12 10:27	JAH	A
Hexane	1.1	ug/L	5	0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			11/27/12 10:27	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			11/27/12 10:27	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			11/27/12 10:27	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 10:27	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			11/27/12 10:27	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 10:27	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			11/27/12 10:27	JAH	A
Methyl t-Butyl Ether	0.20J	ug/L	6	0.50	0.090	EPA 524.2			11/27/12 10:27	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			11/27/12 10:27	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			11/27/12 10:27	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 10:27	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			11/27/12 10:27	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			11/27/12 10:27	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 10:27	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			11/27/12 10:27	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			11/27/12 10:27	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			11/27/12 10:27	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			11/27/12 10:27	JAH	A
Tetrahydrofuran	9.1	ug/L		2.5	0.81	EPA 524.2			11/27/12 10:27	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 10:27	JAH	A

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ANALYTICAL RESULTS

Workorder: 9999463 Drinking Water (11/20/12)

Lab ID: **9999463004** Date Collected: 11/20/2012 09:50 Matrix: Water

Sample ID: **DW-005H_20121120_N** Date Received: 11/20/2012 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			11/27/12 10:27	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 10:27	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			11/27/12 10:27	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			11/27/12 10:27	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			11/27/12 10:27	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			11/27/12 10:27	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			11/27/12 10:27	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			11/27/12 10:27	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			11/27/12 10:27	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			11/27/12 10:27	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			11/27/12 10:27	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			11/27/12 10:27	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			11/27/12 10:27	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	99.8	%		70-130		EPA 524.2			11/27/12 10:27	JAH	A
4-Bromofluorobenzene (S)	97.4	%		70-130		EPA 524.2			11/27/12 10:27	JAH	A
1,2-Dichlorobenzene-d4 (S)	75.1	%		70-130		EPA 524.2			11/29/12 01:42	TMP	B
4-Bromofluorobenzene (S)	75.7	%		70-130		EPA 524.2			11/29/12 01:42	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	0.018J	mg/L		0.10	0.01	SM20-4500-Cl G			11/21/12 03:20	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9999463 Drinking Water (11/20/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Ethyl Ether. The % Recovery was reported as 135 and the control limits were 70 to 130.

[2] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 67.1 and the control limits were 70 to 130. This result was reported at a dilution of 50.

[3] The surrogate 4-Bromofluorobenzene for method EPA 524.2 was outside of control limits. The % Recovery was reported as 60.5 and the control limits were 70 to 130. This result was reported at a dilution of 50.

[4] The surrogate 1,2-Dichlorobenzene-d4 for method EPA 524.2 was outside of control limits. The % Recovery was reported as 54.3 and the control limits were 70 to 130. This result was reported at a dilution of 50.

[5] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Hexane. The % Recovery was reported as 169 and the control limits were 70 to 130.

[6] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 132 and the control limits were 70 to 130.

2802

Analytical Laboratory Services, Inc.
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK

Page 1 of 1

Courier: _____ Tracking #: _____

9999463

Co. Name: REPSG, Inc.
Contact (Report To): James Hamill, Brenda Kelley Phone: (215) 729-3220
Address: 6901 Kingsessing Ave. Phila, PA 19142
Bill to (If Different than Report To): Same PO#: 7569
Project Name/#: Calvert City/59777 ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days - 5-day [ ] Rush-Subject to ALSI approval and surcharges. Date Required: Approved By:
Email? [X] Y jhamill@repsg.com/bmurphail@repsg.com Fax? [ ] Y No:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	Matrix	Container Type	Container Size	Preservative	ANALYSES/METHOD REQUESTED	Enter Number of Containers Per Analysis
1 DW-005A	Pre-Vapor/Pre-Carbon	11-Jul-12	9:00	G	DW				Volcs by Selected Ext Oxygenates	2
2 DW-005F	Post-Vapor/Pre-Carbon	11-Jul-12	9:10	G	DW					2
3 DW-005G	Post-Vapor/Mid-Carbon	11-Jul-12	9:19	G	DW					2
4 DW-005H	Post-Vapor/Post Carbon	11-Jul-12	9:29	G	DW					2
5										
6										
7										
8										

SAMPLED BY (Please Print): B. Murphy

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	11/30	15:03	2		
3	11/30		4		
5	11/30		6		
7			8		
9			10		

LOGGED BY(signature): DATE:
REVIEWED BY(signature): DATE:

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-FL; SRM Format? yes; State Specific? yes; EDD? yes, format type: Other; Equis

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

DOD Criteria Required?

Cooler Temp: Therm. ID: No. of Cooler(s): Notes:

Custody seals Present? Y N
(If present) Seals Intact? Y N
Received on Ice? Y N
COC/Labels complete/accurate? Y N
Container in good condition? Y N
Headspace/Volatiles? Y N
Correct preservation? Y N
Correct sample volume? Y N
Correct containers? Y N
Circle appropriate Y or N.

Performed by: Received by:

* G=Grab; C=Composite **Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oi=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass; PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

December 14, 2012

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**1002705**
Purchase Order:	**7644**	Workorder ID:	**Drinking Water (12/11/12)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, December 11, 2012.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1002705 Drinking Water (12/11/12) Discard Date: 12/27/2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1002705001	DW-005A_20121211_N	Water	12/11/12 09:30	12/11/12 21:50	Customer
1002705002	DW-005F_20121211_N	Water	12/11/12 09:40	12/11/12 21:50	Customer
1002705003	DW-005G_20121211_N	Water	12/11/12 09:50	12/11/12 21:50	Customer
1002705004	DW-005H_20121211_N	Water	12/11/12 10:00	12/11/12 21:50	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705001** Date Collected: 12/11/2012 09:30 Matrix: Water

Sample ID: **DW-005A_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			12/12/12 19:43	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 19:43	JAH	A
tert-Amyl methyl ether	3.4	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:43	JAH	A
tert-Amyl Alcohol	56.9	ug/L		5.0	1.6	EPA 524.2			12/12/12 19:43	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 19:43	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 19:43	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:43	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:43	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:43	JAH	A
2-Butanone	8.9	ug/L		2.5	1.3	EPA 524.2			12/12/12 19:43	JAH	A
tert-Butyl Alcohol	878	ug/L		100	28.0	EPA 524.2			12/13/12 05:48	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:43	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:43	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 19:43	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:43	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:43	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 19:43	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:43	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 19:43	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:43	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:43	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 19:43	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:43	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 19:43	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:43	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:43	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:43	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 19:43	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 19:43	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:43	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
1,4-Dichlorobenzene	0.18J	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
1,2-Dichloroethane	3.4	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:43	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705001** Date Collected: 12/11/2012 09:30 Matrix: Water

Sample ID: **DW-005A_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:43	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:43	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:43	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:43	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:43	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 19:43	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 19:43	JAH	A
Diisopropyl ether	2.5	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:43	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 19:43	JAH	A
Ethyl Ether	0.42J	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:43	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 19:43	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:43	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 19:43	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 19:43	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 19:43	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 19:43	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 19:43	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:43	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 19:43	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:43	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 19:43	JAH	A
Methyl t-Butyl Ether	351	ug/L		10.0	1.8	EPA 524.2			12/13/12 05:48	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 19:43	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 19:43	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:43	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 19:43	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 19:43	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:43	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 19:43	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 19:43	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 19:43	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 19:43	JAH	A
Tetrahydrofuran	2.6	ug/L		2.5	0.81	EPA 524.2			12/12/12 19:43	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 19:43	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705001** Date Collected: 12/11/2012 09:30 Matrix: Water

Sample ID: **DW-005A_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 19:43	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:43	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 19:43	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 19:43	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 19:43	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 19:43	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 19:43	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 19:43	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 19:43	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 19:43	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 19:43	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 19:43	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 19:43	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.7	%		70-130		EPA 524.2			12/12/12 19:43	JAH	A
4-Bromofluorobenzene (S)	85.3	%		70-130		EPA 524.2			12/12/12 19:43	JAH	A
1,2-Dichlorobenzene-d4 (S)	99.4	%		70-130		EPA 524.2			12/13/12 05:48	JAH	A
4-Bromofluorobenzene (S)	86.3	%		70-130		EPA 524.2			12/13/12 05:48	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705002** Date Collected: 12/11/2012 09:40 Matrix: Water

Sample ID: **DW-005F_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	17.9	ug/L		5.0	2.2	EPA 524.2			12/12/12 20:09	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 20:09	JAH	A
tert-Amyl methyl ether	0.38J	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:09	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			12/12/12 20:09	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 20:09	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 20:09	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:09	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A
Bromoform	0.31J	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:09	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:09	JAH	A
2-Butanone	12.5	ug/L		2.5	1.3	EPA 524.2			12/12/12 20:09	JAH	A
tert-Butyl Alcohol	853	ug/L		50.0	14.0	EPA 524.2			12/13/12 06:14	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:09	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:09	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 20:09	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:09	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:09	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 20:09	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:09	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 20:09	JAH	A
Chlorodibromomethane	0.20J	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:09	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:09	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 20:09	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:09	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 20:09	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:09	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:09	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:09	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 20:09	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 20:09	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:09	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:09	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705002** Date Collected: 12/11/2012 09:40 Matrix: Water

Sample ID: **DW-005F_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:09	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:09	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:09	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:09	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:09	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 20:09	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 20:09	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:09	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 20:09	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:09	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 20:09	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:09	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:09	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 20:09	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 20:09	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:09	JAH	A
Isopropyl Alcohol	10.5J	ug/L		25.0	3.9	EPA 524.2			12/12/12 20:09	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:09	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 20:09	JAH	A
Methyl methacrylate	0.31J	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:09	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 20:09	JAH	A
Methyl t-Butyl Ether	52.8	ug/L		5.0	0.90	EPA 524.2			12/13/12 06:14	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 20:09	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 20:09	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:09	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 20:09	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 20:09	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:09	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 20:09	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 20:09	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:09	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 20:09	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			12/12/12 20:09	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 20:09	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705002** Date Collected: 12/11/2012 09:40 Matrix: Water

Sample ID: **DW-005F_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 20:09	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:09	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:09	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:09	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:09	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:09	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:09	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 20:09	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:09	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:09	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:09	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 20:09	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 20:09	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	102	%		70-130		EPA 524.2			12/12/12 20:09	JAH	A
4-Bromofluorobenzene (S)	88.3	%		70-130		EPA 524.2			12/12/12 20:09	JAH	A
1,2-Dichlorobenzene-d4 (S)	89.8	%		70-130		EPA 524.2			12/13/12 06:14	JAH	A
4-Bromofluorobenzene (S)	89.6	%		70-130		EPA 524.2			12/13/12 06:14	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	0.12	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705003** Date Collected: 12/11/2012 09:50 Matrix: Water

Sample ID: **DW-005G_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	2.2J	ug/L		5.0	2.2	EPA 524.2			12/12/12 20:35	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 20:35	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:35	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			12/12/12 20:35	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 20:35	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 20:35	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:35	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:35	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:35	JAH	A
2-Butanone	8.5	ug/L		2.5	1.3	EPA 524.2			12/12/12 20:35	JAH	A
tert-Butyl Alcohol	826	ug/L		50.0	14.0	EPA 524.2			12/13/12 04:55	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:35	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:35	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 20:35	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:35	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:35	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 20:35	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:35	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 20:35	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:35	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:35	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 20:35	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:35	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 20:35	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:35	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:35	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:35	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 20:35	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 20:35	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:35	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:35	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705003** Date Collected: 12/11/2012 09:50 Matrix: Water

Sample ID: **DW-005G_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:35	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:35	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:35	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:35	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:35	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 20:35	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 20:35	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:35	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 20:35	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:35	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 20:35	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:35	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 20:35	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 20:35	JAH	A
Hexane	0.31J	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 20:35	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 20:35	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 20:35	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:35	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 20:35	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:35	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 20:35	JAH	A
Methyl t-Butyl Ether	0.43J	ug/L		0.50	0.090	EPA 524.2			12/12/12 20:35	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 20:35	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 20:35	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:35	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 20:35	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 20:35	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:35	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 20:35	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 20:35	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 20:35	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 20:35	JAH	A
Tetrahydrofuran	8.9	ug/L		2.5	0.81	EPA 524.2			12/12/12 20:35	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 20:35	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705003** Date Collected: 12/11/2012 09:50 Matrix: Water

Sample ID: **DW-005G_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 20:35	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:35	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 20:35	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 20:35	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 20:35	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 20:35	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 20:35	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 20:35	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 20:35	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 20:35	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 20:35	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 20:35	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 20:35	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	94.8	%		70-130		EPA 524.2			12/12/12 20:35	JAH	A
4-Bromofluorobenzene (S)	83.6	%		70-130		EPA 524.2			12/12/12 20:35	JAH	A
1,2-Dichlorobenzene-d4 (S)	85.6	%		70-130		EPA 524.2			12/13/12 04:55	JAH	A
4-Bromofluorobenzene (S)	85.4	%		70-130		EPA 524.2			12/13/12 04:55	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705004** Date Collected: 12/11/2012 10:00 Matrix: Water

Sample ID: **DW-005H_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	3.0J	ug/L		5.0	2.2	EPA 524.2			12/12/12 21:01	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 21:01	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 21:01	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			12/12/12 21:01	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 21:01	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			12/12/12 21:01	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 21:01	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 21:01	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 21:01	JAH	A
2-Butanone	11.1	ug/L		2.5	1.3	EPA 524.2			12/12/12 21:01	JAH	A
tert-Butyl Alcohol	1170	ug/L		100	28.0	EPA 524.2			12/13/12 07:06	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 21:01	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 21:01	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 21:01	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 21:01	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 21:01	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			12/12/12 21:01	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 21:01	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			12/12/12 21:01	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 21:01	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 21:01	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 21:01	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 21:01	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 21:01	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 21:01	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 21:01	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 21:01	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			12/12/12 21:01	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			12/12/12 21:01	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 21:01	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 21:01	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705004** Date Collected: 12/11/2012 10:00 Matrix: Water

Sample ID: **DW-005H_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 21:01	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 21:01	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 21:01	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 21:01	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 21:01	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 21:01	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 21:01	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 21:01	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			12/12/12 21:01	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 21:01	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			12/12/12 21:01	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 21:01	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			12/12/12 21:01	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			12/12/12 21:01	JAH	A
Hexane	0.35J	ug/L		0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			12/12/12 21:01	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			12/12/12 21:01	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			12/12/12 21:01	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 21:01	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			12/12/12 21:01	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 21:01	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 21:01	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			12/12/12 21:01	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			12/12/12 21:01	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			12/12/12 21:01	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 21:01	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			12/12/12 21:01	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			12/12/12 21:01	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 21:01	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			12/12/12 21:01	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			12/12/12 21:01	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			12/12/12 21:01	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			12/12/12 21:01	JAH	A
Tetrahydrofuran	30.4	ug/L		2.5	0.81	EPA 524.2			12/12/12 21:01	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 21:01	JAH	A

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ANALYTICAL RESULTS

Workorder: 1002705 Drinking Water (12/11/12)

Lab ID: **1002705004** Date Collected: 12/11/2012 10:00 Matrix: Water

Sample ID: **DW-005H_20121211_N** Date Received: 12/11/2012 21:50

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			12/12/12 21:01	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 21:01	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			12/12/12 21:01	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			12/12/12 21:01	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			12/12/12 21:01	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			12/12/12 21:01	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			12/12/12 21:01	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			12/12/12 21:01	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			12/12/12 21:01	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			12/12/12 21:01	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			12/12/12 21:01	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			12/12/12 21:01	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			12/12/12 21:01	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	100	%		70-130		EPA 524.2			12/12/12 21:01	JAH	A
4-Bromofluorobenzene (S)	90.9	%		70-130		EPA 524.2			12/12/12 21:01	JAH	A
1,2-Dichlorobenzene-d4 (S)	82.2	%		70-130		EPA 524.2			12/13/12 07:06	JAH	A
4-Bromofluorobenzene (S)	81.4	%		70-130		EPA 524.2			12/13/12 07:06	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			12/12/12 04:50	MBW	C

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1002705 Drinking Water (12/11/12)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 67.4 and the control limits were 70 to 130.

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February 5, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**MD SITE - CALVERT CITGO - REV**	Workorder:	**1009806**
Purchase Order:	**7782**	Workorder ID:	**Drinking Water (01/30/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 30, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALS' NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

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CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1009806 Drinking Water (01/30/13) Discard Date: 02/18/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1009806001	DW-005A_20130130_N	Water	1/30/13 09:00	1/30/13 21:45	Bradley Musser
1009806002	DW-005F_20130130_N	Water	1/30/13 09:10	1/30/13 21:45	Bradley Musser
1009806003	DW-005G_20130130_N	Water	1/30/13 09:20	1/30/13 21:45	Bradley Musser
1009806004	DW-005H_20130130_N	Water	1/30/13 09:30	1/30/13 21:45	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806001** Date Collected: 1/30/2013 09:00 Matrix: Water

Sample ID: **DW-005A_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	5.5	ug/L		5.0	2.2	EPA 524.2			2/1/13 04:53	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 04:53	JAH	A
tert-Amyl methyl ether	2.1	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:53	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/1/13 04:53	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:53	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/1/13 04:53	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:53	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:53	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:53	JAH	A
2-Butanone	9.5	ug/L		2.5	1.3	EPA 524.2			2/1/13 04:53	JAH	A
tert-Butyl Alcohol	327	ug/L		100	28.0	EPA 524.2			2/1/13 19:02	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:53	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:53	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:53	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:53	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:53	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 04:53	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:53	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/1/13 04:53	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:53	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:53	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 04:53	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:53	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 04:53	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:53	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:53	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:53	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/1/13 04:53	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/1/13 04:53	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:53	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
1,4-Dichlorobenzene	0.14J	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
1,2-Dichloroethane	2.1	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:53	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806001** Date Collected: 1/30/2013 09:00 Matrix: Water

Sample ID: **DW-005A_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:53	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:53	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:53	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:53	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:53	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:53	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 04:53	JAH	A
Diisopropyl ether	2.0	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:53	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/1/13 04:53	JAH	A
Ethyl Ether	0.38J	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:53	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 04:53	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:53	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 04:53	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/1/13 04:53	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/1/13 04:53	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 04:53	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/1/13 04:53	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:53	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 04:53	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:53	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 04:53	JAH	A
Methyl t-Butyl Ether	174	ug/L		10.0	1.8	EPA 524.2			2/1/13 19:02	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/1/13 04:53	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/1/13 04:53	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:53	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/1/13 04:53	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/1/13 04:53	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:53	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/1/13 04:53	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 04:53	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 04:53	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 04:53	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/1/13 04:53	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:53	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806001** Date Collected: 1/30/2013 09:00 Matrix: Water

Sample ID: **DW-005A_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/1/13 04:53	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:53	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 04:53	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 04:53	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 04:53	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 04:53	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 04:53	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/1/13 04:53	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 04:53	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 04:53	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 04:53	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 04:53	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 04:53	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	79.8	%		70-130		EPA 524.2			2/1/13 04:53	JAH	A
4-Bromofluorobenzene (S)	80.5	%		70-130		EPA 524.2			2/1/13 04:53	JAH	A
1,2-Dichlorobenzene-d4 (S)	72.9	%		70-130		EPA 524.2			2/1/13 19:02	JAH	B
4-Bromofluorobenzene (S)	79.3	%		70-130		EPA 524.2			2/1/13 19:02	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806002** Date Collected: 1/30/2013 09:10 Matrix: Water

Sample ID: **DW-005F_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	22.2	ug/L		5.0	2.2	EPA 524.2			2/1/13 05:45	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 05:45	JAH	A
tert-Amyl methyl ether	0.45J	ug/L		0.50	0.15	EPA 524.2			2/1/13 05:45	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/1/13 05:45	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 05:45	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/1/13 05:45	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 05:45	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 05:45	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 05:45	JAH	A
2-Butanone	10.5	ug/L		2.5	1.3	EPA 524.2			2/1/13 05:45	JAH	A
tert-Butyl Alcohol	287	ug/L		50.0	14.0	EPA 524.2			2/1/13 19:27	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 05:45	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 05:45	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 05:45	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 05:45	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 05:45	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 05:45	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 05:45	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/1/13 05:45	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 05:45	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 05:45	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 05:45	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 05:45	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 05:45	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 05:45	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 05:45	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 05:45	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/1/13 05:45	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/1/13 05:45	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 05:45	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
1,2-Dichloroethane	0.36J	ug/L		0.50	0.15	EPA 524.2			2/1/13 05:45	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806002** Date Collected: 1/30/2013 09:10 Matrix: Water

Sample ID: **DW-005F_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 05:45	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 05:45	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 05:45	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 05:45	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 05:45	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 05:45	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 05:45	JAH	A
Diisopropyl ether	0.33J	ug/L		0.50	0.21	EPA 524.2			2/1/13 05:45	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/1/13 05:45	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 05:45	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 05:45	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 05:45	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 05:45	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/1/13 05:45	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/1/13 05:45	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 05:45	JAH	A
Isopropyl Alcohol	12.1J	ug/L		25.0	3.9	EPA 524.2			2/1/13 05:45	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 05:45	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 05:45	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 05:45	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 05:45	JAH	A
Methyl t-Butyl Ether	43.6	ug/L		5.0	0.90	EPA 524.2			2/1/13 19:27	JAH	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/1/13 05:45	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/1/13 05:45	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 05:45	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/1/13 05:45	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/1/13 05:45	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 05:45	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/1/13 05:45	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 05:45	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 05:45	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 05:45	JAH	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/1/13 05:45	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 05:45	JAH	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806002** Date Collected: 1/30/2013 09:10 Matrix: Water

Sample ID: **DW-005F_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/1/13 05:45	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 05:45	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 05:45	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 05:45	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 05:45	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 05:45	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 05:45	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/1/13 05:45	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 05:45	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 05:45	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 05:45	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 05:45	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 05:45	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	74.4	%		70-130		EPA 524.2			2/1/13 05:45	JAH	A
4-Bromofluorobenzene (S)	83.9	%		70-130		EPA 524.2			2/1/13 05:45	JAH	A
1,2-Dichlorobenzene-d4 (S)	75.1	%		70-130		EPA 524.2			2/1/13 19:27	JAH	B
4-Bromofluorobenzene (S)	76.2	%		70-130		EPA 524.2			2/1/13 19:27	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806003** Date Collected: 1/30/2013 09:20 Matrix: Water

Sample ID: **DW-005G_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	3.5J	ug/L		5.0	2.2	EPA 524.2			2/1/13 06:36	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 06:36	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 06:36	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/1/13 06:36	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 06:36	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/1/13 06:36	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 06:36	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 06:36	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 06:36	JAH	A
2-Butanone	9.0	ug/L		2.5	1.3	EPA 524.2			2/1/13 06:36	JAH	A
tert-Butyl Alcohol	9.2	ug/L		5.0	1.4	EPA 524.2			2/1/13 06:36	JAH	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 06:36	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 06:36	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 06:36	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 06:36	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 06:36	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 06:36	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 06:36	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/1/13 06:36	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 06:36	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 06:36	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 06:36	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 06:36	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 06:36	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 06:36	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 06:36	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 06:36	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/1/13 06:36	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/1/13 06:36	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 06:36	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 06:36	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806003** Date Collected: 1/30/2013 09:20 Matrix: Water

Sample ID: **DW-005G_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 06:36	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 06:36	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 06:36	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 06:36	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 06:36	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 06:36	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 06:36	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 06:36	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/1/13 06:36	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 06:36	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 06:36	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 06:36	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 06:36	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/1/13 06:36	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/1/13 06:36	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 06:36	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/1/13 06:36	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 06:36	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 06:36	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 06:36	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 06:36	JAH	A
Methyl t-Butyl Ether	2.3	ug/L		0.50	0.090	EPA 524.2			2/1/13 06:36	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/1/13 06:36	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/1/13 06:36	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 06:36	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/1/13 06:36	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/1/13 06:36	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 06:36	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/1/13 06:36	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 06:36	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 06:36	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 06:36	JAH	A
Tetrahydrofuran	5.1	ug/L		2.5	0.81	EPA 524.2			2/1/13 06:36	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 06:36	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806003** Date Collected: 1/30/2013 09:20 Matrix: Water

Sample ID: **DW-005G_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/1/13 06:36	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 06:36	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 06:36	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 06:36	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 06:36	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 06:36	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 06:36	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/1/13 06:36	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 06:36	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 06:36	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 06:36	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 06:36	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 06:36	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	72.2	%		70-130		EPA 524.2			2/1/13 06:36	JAH	A
4-Bromofluorobenzene (S)	78.6	%		70-130		EPA 524.2			2/1/13 06:36	JAH	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806004** Date Collected: 1/30/2013 09:30 Matrix: Water

Sample ID: **DW-005H_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.1J	ug/L		5.0	2.2	EPA 524.2			2/1/13 07:28	JAH	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 07:28	JAH	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 07:28	JAH	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/1/13 07:28	JAH	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 07:28	JAH	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/1/13 07:28	JAH	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 07:28	JAH	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 07:28	JAH	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 07:28	JAH	A
2-Butanone	9.1	ug/L		2.5	1.3	EPA 524.2			2/1/13 07:28	JAH	A
tert-Butyl Alcohol	414	ug/L		50.0	14.0	EPA 524.2			2/1/13 19:53	JAH	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 07:28	JAH	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 07:28	JAH	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 07:28	JAH	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 07:28	JAH	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 07:28	JAH	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/1/13 07:28	JAH	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 07:28	JAH	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/1/13 07:28	JAH	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 07:28	JAH	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 07:28	JAH	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 07:28	JAH	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 07:28	JAH	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 07:28	JAH	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 07:28	JAH	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 07:28	JAH	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 07:28	JAH	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/1/13 07:28	JAH	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/1/13 07:28	JAH	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 07:28	JAH	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 07:28	JAH	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806004** Date Collected: 1/30/2013 09:30 Matrix: Water

Sample ID: **DW-005H_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 07:28	JAH	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 07:28	JAH	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 07:28	JAH	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 07:28	JAH	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 07:28	JAH	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 07:28	JAH	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 07:28	JAH	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 07:28	JAH	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/1/13 07:28	JAH	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 07:28	JAH	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/1/13 07:28	JAH	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 07:28	JAH	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/1/13 07:28	JAH	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/1/13 07:28	JAH	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/1/13 07:28	JAH	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/1/13 07:28	JAH	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/1/13 07:28	JAH	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 07:28	JAH	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/1/13 07:28	JAH	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 07:28	JAH	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 07:28	JAH	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/1/13 07:28	JAH	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/1/13 07:28	JAH	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/1/13 07:28	JAH	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 07:28	JAH	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/1/13 07:28	JAH	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/1/13 07:28	JAH	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 07:28	JAH	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/1/13 07:28	JAH	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/1/13 07:28	JAH	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/1/13 07:28	JAH	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/1/13 07:28	JAH	A
Tetrahydrofuran	3.6	ug/L		2.5	0.81	EPA 524.2			2/1/13 07:28	JAH	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 07:28	JAH	A

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ANALYTICAL RESULTS

Workorder: 1009806 Drinking Water (01/30/13)

Lab ID: **1009806004** Date Collected: 1/30/2013 09:30 Matrix: Water

Sample ID: **DW-005H_20130130_N** Date Received: 1/30/2013 21:45

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/1/13 07:28	JAH	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 07:28	JAH	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/1/13 07:28	JAH	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/1/13 07:28	JAH	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/1/13 07:28	JAH	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/1/13 07:28	JAH	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/1/13 07:28	JAH	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/1/13 07:28	JAH	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/1/13 07:28	JAH	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/1/13 07:28	JAH	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/1/13 07:28	JAH	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/1/13 07:28	JAH	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/1/13 07:28	JAH	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	73.2	%		70-130		EPA 524.2			2/1/13 07:28	JAH	A
4-Bromofluorobenzene (S)	77.4	%		70-130		EPA 524.2			2/1/13 07:28	JAH	A
1,2-Dichlorobenzene-d4 (S)	71.5	%		70-130		EPA 524.2			2/1/13 19:53	JAH	B
4-Bromofluorobenzene (S)	77.5	%		70-130		EPA 524.2			2/1/13 19:53	JAH	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			1/31/13 06:00	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

2802 = DW-005

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

1009806

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel
Address: 6901 Kingsessing Ave. Phila, PA 19142
Phone: (215) 729-3820

Bill to (if different than Report to): Same
PO#: 7782

Project Name/#: Calvert City/5977 ALSI Quote #:
TAT: Normal-Standard TAT is ~~10 15~~ business days. Friday Date Required:
Rush-Subject to ALSI approval and surcharges. Approved By:
Email? X jmanuel@repsg.com; dmacphail@repsg.com
Fax? No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	"G or C"	"Matrix"	***Container Type	***Container Size	*** Preservative	Enter Number of Containers Per Analysis	Residual Chlorine USC's By Sound Engineering Fuel Oxygenates
1	DW-005A	Pre-Vapor/Pre-Carbon	1/31/13	9:00	G	DW	P	500mL	HCl/ice	2	VOA
2	DW-005F	Post-Vapor/Pre-Carbon	1/31/13	9:10	G	DW	P	500mL	HCl/ice	2	40mL
3	DW-005G	Post-Vapor/Mid-Carbon	1/31/13	9:20	G	DW	P	500mL	HCl/ice	2	HCl/ice
4	DW-005H	Post-Vapor/Post-Carbon	1/31/13	9:30	G	DW	P	500mL	HCl/ice	2	
5											
6											
7											
8											

SAMPLED BY (Please Print): B. Musser
LOGGED BY(signature): DATE 1/31/2013
REVIEWED BY(signature): DATE

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Format? yes; State Samples Collected in? MD, NJ, NY, PA; If yes, format type: Other
EDDs: Required; EQuIS
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	1/31/13	14:15	2	1-30	1415
3	1.30		4	1/30	1825
5	1/30	2145	6	1/30	2145
7			8		
9			10		

Receipt Information (Custody Seal(s) Present/Not Present): Performed by: Initials
Cooler Temp: 19
Therm. ID: TH-145
No. of Coolers:
Notes:

	Y	N
Custody seals Present?		
(if present) Seals Intact?		
Received on Ice?		
COC/Labels complete/accurate?		
Container in good condition?		
Correct container?		
Correct sample volume?		
Correct preservation?		
Headspace/Volatiles?		

Circle appropriate Y or N.

*G=Grab; C=Composite **Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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February 28, 2013

Ms. Brenda MacPhail Kellogg
REPSG
6901 Kingsessing Blvd.
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVET CITGO PROJECT**	Workorder:	**1013472**
Purchase Order:	**7840**	Workorder ID:	**Drinking Water (02/21/13)**

Dear Ms. Kellogg,

Enclosed are the analytical results for samples received by the laboratory on Thursday, February 21, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1013472 Drinking Water (02/21/13) Discard Date: 03/14/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1013472001	DW-005A_20130221-N	Water	2/21/13 09:00	2/21/13 20:40	Bradley Musser
1013472002	DW-005F_20130221-N	Water	2/21/13 09:10	2/21/13 20:40	Bradley Musser
1013472003	DW-005G_20130221-N	Water	2/21/13 09:20	2/21/13 20:40	Bradley Musser
1013472004	DW-005H_20130221-N	Water	2/21/13 09:30	2/21/13 20:40	Bradley Musser

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472001** Date Collected: 2/21/2013 09:00 Matrix: Water

Sample ID: **DW-005A_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	7.9	ug/L		5.0	2.2	EPA 524.2			2/22/13 20:48	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 20:48	DRS	A
tert-Amyl methyl ether	1.5	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:48	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 20:48	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 20:48	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 20:48	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:48	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:48	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 20:48	DRS	A
2-Butanone	15.3	ug/L		2.5	1.3	EPA 524.2			2/22/13 20:48	DRS	A
tert-Butyl Alcohol	290	ug/L		25.0	7.0	EPA 524.2			2/23/13 06:48	DRS	B
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 20:48	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:48	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 20:48	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:48	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:48	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 20:48	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:48	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 20:48	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:48	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:48	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 20:48	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:48	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 20:48	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:48	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:48	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:48	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 20:48	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 20:48	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 20:48	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
1,2-Dichloroethane	1.7	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:48	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472001** Date Collected: 2/21/2013 09:00 Matrix: Water

Sample ID: **DW-005A_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:48	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:48	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:48	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 20:48	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:48	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 20:48	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 20:48	DRS	A
Diisopropyl ether	1.6	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:48	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 20:48	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:48	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 20:48	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:48	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 20:48	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 20:48	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 20:48	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 20:48	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 20:48	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:48	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 20:48	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:48	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 20:48	DRS	A
Methyl t-Butyl Ether	169	ug/L		12.5	2.3	EPA 524.2			2/26/13 06:41	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 20:48	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 20:48	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:48	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 20:48	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 20:48	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:48	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 20:48	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 20:48	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 20:48	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 20:48	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/22/13 20:48	DRS	A
Toluene	0.21J	ug/L		0.50	0.12	EPA 524.2			2/22/13 20:48	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472001** Date Collected: 2/21/2013 09:00 Matrix: Water

Sample ID: **DW-005A_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 20:48	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:48	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 20:48	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 20:48	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 20:48	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 20:48	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 20:48	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 20:48	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 20:48	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 20:48	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 20:48	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 20:48	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 20:48	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	71.3	%		70-130		EPA 524.2			2/22/13 20:48	DRS	A
4-Bromofluorobenzene (S)	83.3	%		70-130		EPA 524.2			2/22/13 20:48	DRS	A
1,2-Dichlorobenzene-d4 (S)	72.5	%		70-130		EPA 524.2			2/23/13 06:48	DRS	B
4-Bromofluorobenzene (S)	74.7	%		70-130		EPA 524.2			2/23/13 06:48	DRS	B
1,2-Dichlorobenzene-d4 (S)	75	%		70-130		EPA 524.2			2/26/13 06:41	DRS	B
4-Bromofluorobenzene (S)	79	%		70-130		EPA 524.2			2/26/13 06:41	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	0.019J	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472002** Date Collected: 2/21/2013 09:10 Matrix: Water

Sample ID: **DW-005F_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	9.9	ug/L		5.0	2.2	EPA 524.2			2/22/13 19:32	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 19:32	DRS	A
tert-Amyl methyl ether	0.64	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:32	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 19:32	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 19:32	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 19:32	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:32	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:32	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 19:32	DRS	A
2-Butanone	11.1	ug/L		2.5	1.3	EPA 524.2			2/22/13 19:32	DRS	A
tert-Butyl Alcohol	183	ug/L		25.0	7.0	EPA 524.2			2/26/13 07:07	DRS	B
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 19:32	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:32	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 19:32	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:32	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:32	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 19:32	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:32	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 19:32	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:32	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:32	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 19:32	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:32	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 19:32	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:32	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:32	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:32	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 19:32	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 19:32	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 19:32	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:32	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472002** Date Collected: 2/21/2013 09:10 Matrix: Water

Sample ID: **DW-005F_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:32	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:32	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:32	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:32	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:32	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 19:32	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 19:32	DRS	A
Diisopropyl ether	0.51	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:32	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 19:32	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:32	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 19:32	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:32	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 19:32	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 19:32	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 19:32	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 19:32	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 19:32	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:32	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 19:32	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:32	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 19:32	DRS	A
Methyl t-Butyl Ether	75.1	ug/L		2.5	0.45	EPA 524.2			2/26/13 07:07	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 19:32	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 19:32	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:32	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 19:32	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 19:32	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:32	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 19:32	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 19:32	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 19:32	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 19:32	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/22/13 19:32	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 19:32	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472002** Date Collected: 2/21/2013 09:10 Matrix: Water

Sample ID: **DW-005F_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 19:32	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:32	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:32	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:32	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:32	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:32	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:32	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 19:32	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:32	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:32	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:32	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 19:32	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 19:32	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	74.6	%		70-130		EPA 524.2			2/22/13 19:32	DRS	A
4-Bromofluorobenzene (S)	83.4	%		70-130		EPA 524.2			2/22/13 19:32	DRS	A
1,2-Dichlorobenzene-d4 (S)	74.6	%		70-130		EPA 524.2			2/26/13 07:07	DRS	B
4-Bromofluorobenzene (S)	76.9	%		70-130		EPA 524.2			2/26/13 07:07	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472003** Date Collected: 2/21/2013 09:20 Matrix: Water

Sample ID: **DW-005G_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	6.3	ug/L		5.0	2.2	EPA 524.2			2/22/13 18:41	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 18:41	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 18:41	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 18:41	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 18:41	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 18:41	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 18:41	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 18:41	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 18:41	DRS	A
2-Butanone	6.8	ug/L		2.5	1.3	EPA 524.2			2/22/13 18:41	DRS	A
tert-Butyl Alcohol	6.9	ug/L		5.0	1.4	EPA 524.2			2/22/13 18:41	DRS	A
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 18:41	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 18:41	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 18:41	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 18:41	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 18:41	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 18:41	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 18:41	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 18:41	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 18:41	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 18:41	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 18:41	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 18:41	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 18:41	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 18:41	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 18:41	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 18:41	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 18:41	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 18:41	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 18:41	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 18:41	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472003** Date Collected: 2/21/2013 09:20 Matrix: Water

Sample ID: **DW-005G_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 18:41	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 18:41	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 18:41	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 18:41	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 18:41	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 18:41	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 18:41	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 18:41	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 18:41	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 18:41	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 18:41	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 18:41	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 18:41	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 18:41	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 18:41	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 18:41	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 18:41	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 18:41	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 18:41	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 18:41	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 18:41	DRS	A
Methyl t-Butyl Ether	2.1	ug/L		0.50	0.090	EPA 524.2			2/22/13 18:41	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 18:41	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 18:41	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 18:41	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 18:41	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 18:41	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 18:41	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 18:41	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 18:41	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 18:41	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 18:41	DRS	A
Tetrahydrofuran	4.1	ug/L		2.5	0.81	EPA 524.2			2/22/13 18:41	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 18:41	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472003** Date Collected: 2/21/2013 09:20 Matrix: Water

Sample ID: **DW-005G_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 18:41	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 18:41	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 18:41	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 18:41	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 18:41	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 18:41	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 18:41	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 18:41	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 18:41	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 18:41	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 18:41	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 18:41	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 18:41	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	73.2	%		70-130		EPA 524.2			2/22/13 18:41	DRS	A
4-Bromofluorobenzene (S)	78.7	%		70-130		EPA 524.2			2/22/13 18:41	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472004** Date Collected: 2/21/2013 09:30 Matrix: Water

Sample ID: **DW-005H_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	6.3	ug/L		5.0	2.2	EPA 524.2			2/22/13 19:57	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 19:57	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:57	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/22/13 19:57	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 19:57	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/22/13 19:57	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:57	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:57	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 19:57	DRS	A
2-Butanone	12.8	ug/L		2.5	1.3	EPA 524.2			2/22/13 19:57	DRS	A
tert-Butyl Alcohol	222	ug/L		25.0	7.0	EPA 524.2			2/26/13 07:32	DRS	B
n-Butylbenzene	ND	ug/L	1	0.50	0.13	EPA 524.2			2/22/13 19:57	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:57	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 19:57	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:57	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:57	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/22/13 19:57	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:57	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/22/13 19:57	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:57	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:57	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 19:57	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:57	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 19:57	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:57	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:57	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:57	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/22/13 19:57	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/22/13 19:57	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 19:57	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:57	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472004** Date Collected: 2/21/2013 09:30 Matrix: Water

Sample ID: **DW-005H_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:57	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:57	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:57	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/22/13 19:57	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:57	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 19:57	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 19:57	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:57	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/22/13 19:57	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:57	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/22/13 19:57	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:57	DRS	A
Hexachlorobutadiene	ND	ug/L	2	0.50	0.24	EPA 524.2			2/22/13 19:57	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/22/13 19:57	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/22/13 19:57	DRS	A
Iodomethane	ND	ug/L	3	0.50	0.19	EPA 524.2			2/22/13 19:57	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/22/13 19:57	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:57	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/22/13 19:57	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:57	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 19:57	DRS	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/22/13 19:57	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/22/13 19:57	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/22/13 19:57	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:57	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/22/13 19:57	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/22/13 19:57	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:57	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/22/13 19:57	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/22/13 19:57	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/22/13 19:57	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/22/13 19:57	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/22/13 19:57	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 19:57	DRS	A

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ANALYTICAL RESULTS

Workorder: 1013472 Drinking Water (02/21/13)

Lab ID: **1013472004** Date Collected: 2/21/2013 09:30 Matrix: Water

Sample ID: **DW-005H_20130221-N** Date Received: 2/21/2013 20:40

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			2/22/13 19:57	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:57	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/22/13 19:57	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/22/13 19:57	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/22/13 19:57	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/22/13 19:57	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/22/13 19:57	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/22/13 19:57	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/22/13 19:57	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/22/13 19:57	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/22/13 19:57	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/22/13 19:57	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			2/22/13 19:57	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	71.2	%		70-130		EPA 524.2			2/22/13 19:57	DRS	A
4-Bromofluorobenzene (S)	73.8	%		70-130		EPA 524.2			2/22/13 19:57	DRS	A
1,2-Dichlorobenzene-d4 (S)	72.9	%		70-130		EPA 524.2			2/26/13 07:32	DRS	B
4-Bromofluorobenzene (S)	80.3	%		70-130		EPA 524.2			2/26/13 07:32	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			2/22/13 05:10	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1013472 Drinking Water (02/21/13)

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte n-Butylbenzene. The % Recovery was reported as 60.3 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 63.3 and the control limits were 70 to 130.

[3] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 60.8 and the control limits were 70 to 130.

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2802

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
* 1 0 1 3 4 7 2 *

Co. Name: REPSG, Inc
Contact (Report to): Brenda Kellogg
Phone: (215) 709-3500
Address: 6901 Kingsessing Ave. Phila, PA 19142
PO#: 7840
Bill to (if different than Report to): Same
Project Name/#: Calvert City/5977
ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5 day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? Y bmangan@repsg.com; jmanuel@repsg.com
Fax? Y No:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	G or C	Matrix	Container Type	Container Size	Preservative	Enter Number of Containers Per Analysis	Residual Chlorine	Soil % Moisture Total Organic Carbon
1	DW-005A	Pre-Vapor/Pre-Carbon	2/21/13	9:40	G	DW	Poly	Vial	HCl	2		
2	DW-005F	Post-Vapor/Pre-Carbon	2/21/13	9:10	G	DW	Poly	40mL	HCl	2		
3	DW-005G	Post-Vapor/Mid-Carbon	2/21/13	9:20	G	DW	Poly	40mL	HCl	2		
4	DW-005H	Post-Vapor/Post-Carbon	2/21/13	9:30	G	DW	Poly	40mL	HCl	2		
5												
6												
7												
8												

ANALYSES/METHOD REQUESTED

SAMPLED BY (Please Print): B. Musser
LOGGED BY(signature):
REVIEWED BY(signature):

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	2-21	13:45	2	2-21	1345
3	2-21	20:45	4	2-21	2045
5	2/21	2045	6	2/21	2045
7			8		
9			10		

Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.	
Container in good condition?	Y N
COC/Labels complete/accurate?	Y N
Headspace/Volatiles?	Y N
Correct preservation?	Y N
Correct sample volume?	Y N
Correct containers?	Y N
Custody seals Present?	Y N
(if present) Seals intact?	Y N
Received on ice?	Y N

ALSI FIELD SERVICES: Pickup, Labor, Composite Sampling, Rental Equipment, Other:

Data Deliverables: Standard, CLP-like, NJ-Reduced, NJ-Full
SDWA Forms? yes yes yes yes
State Samples Collected In? MD NJ NY PA
EDDs Required? If yes, format type: EQUIS
Other

DOD Criteria Required?

*G=Grab; C=Composite **Matrix: Air=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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March 14, 2013

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1016002**
Purchase Order:	**7901**	Workorder ID:	**Drinking Water (03/08/13)**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Friday, March 08, 2013.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) or Anna G Milliken (Technical Manager) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

CC: Ms. Brenda MacPhail Kellogg

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Anna G Milliken
Technical Manager

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1016002 Drinking Water (03/08/13) Discard Date: 03/28/2013

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1016002001	DW-005A_20130308_N	Water	3/8/13 10:00	3/8/13 19:52	Customer
1016002002	DW-005F_20130308_N	Water	3/8/13 09:55	3/8/13 19:52	Customer
1016002003	DW-005G_20130308_N	Water	3/8/13 09:50	3/8/13 19:52	Customer
1016002004	DW-005H_20130308_N	Water	3/8/13 09:45	3/8/13 19:52	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002001** Date Collected: 3/8/2013 10:00 Matrix: Water

Sample ID: **DW-005A_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			3/13/13 10:16	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 10:16	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:16	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			3/13/13 10:16	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 10:16	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			3/13/13 10:16	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:16	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:16	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:16	DRS	A
2-Butanone	1.4J	ug/L		2.5	1.3	EPA 524.2			3/13/13 10:16	DRS	A
tert-Butyl Alcohol	205	ug/L		50.0	14.0	EPA 524.2			3/13/13 23:45	DRS	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:16	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:16	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 10:16	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:16	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:16	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 10:16	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:16	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			3/13/13 10:16	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:16	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:16	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 10:16	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:16	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 10:16	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:16	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:16	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:16	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			3/13/13 10:16	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			3/13/13 10:16	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:16	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A
1,1-Dichloroethane	0.19J	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
1,2-Dichloroethane	1.5	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:16	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002001** Date Collected: 3/8/2013 10:00 Matrix: Water

Sample ID: **DW-005A_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:16	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:16	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:16	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:16	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:16	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 10:16	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 10:16	DRS	A
Diisopropyl ether	1.4	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:16	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			3/13/13 10:16	DRS	A
Ethyl Ether	0.53	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:16	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 10:16	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:16	DRS	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:16	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			3/13/13 10:16	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			3/13/13 10:16	DRS	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:16	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			3/13/13 10:16	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:16	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 10:16	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:16	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 10:16	DRS	A
Methyl t-Butyl Ether	157	ug/L		5.0	0.90	EPA 524.2			3/13/13 23:45	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			3/13/13 10:16	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			3/13/13 10:16	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:16	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			3/13/13 10:16	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 10:16	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:16	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 10:16	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 10:16	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:16	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 10:16	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			3/13/13 10:16	DRS	A
Toluene	0.26J	ug/L		0.50	0.12	EPA 524.2			3/13/13 10:16	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002001** Date Collected: 3/8/2013 10:00 Matrix: Water

Sample ID: **DW-005A_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			3/13/13 10:16	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:16	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:16	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:16	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:16	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:16	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:16	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			3/13/13 10:16	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:16	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:16	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:16	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 10:16	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 10:16	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	95.2	%		70-130		EPA 524.2			3/13/13 10:16	DRS	A
4-Bromofluorobenzene (S)	96.1	%		70-130		EPA 524.2			3/13/13 10:16	DRS	A
1,2-Dichlorobenzene-d4 (S)	88	%		70-130		EPA 524.2			3/13/13 23:45	DRS	A
4-Bromofluorobenzene (S)	89.6	%		70-130		EPA 524.2			3/13/13 23:45	DRS	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002002** Date Collected: 3/8/2013 09:55 Matrix: Water

Sample ID: **DW-005F_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	3.8J	ug/L		5.0	2.2	EPA 524.2			3/13/13 10:42	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 10:42	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:42	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			3/13/13 10:42	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 10:42	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			3/13/13 10:42	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:42	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:42	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:42	DRS	A
2-Butanone	6.1	ug/L		2.5	1.3	EPA 524.2			3/13/13 10:42	DRS	A
tert-Butyl Alcohol	213	ug/L		50.0	14.0	EPA 524.2			3/14/13 00:11	DRS	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:42	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:42	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 10:42	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:42	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:42	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 10:42	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:42	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			3/13/13 10:42	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:42	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:42	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 10:42	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:42	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 10:42	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:42	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:42	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:42	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			3/13/13 10:42	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			3/13/13 10:42	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:42	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
1,4-Dichlorobenzene	0.25J	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
1,2-Dichloroethane	1.5	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:42	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002002** Date Collected: 3/8/2013 09:55 Matrix: Water

Sample ID: **DW-005F_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:42	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:42	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:42	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:42	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:42	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 10:42	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 10:42	DRS	A
Diisopropyl ether	1.5	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:42	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			3/13/13 10:42	DRS	A
Ethyl Ether	0.28J	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:42	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 10:42	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:42	DRS	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 10:42	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			3/13/13 10:42	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			3/13/13 10:42	DRS	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 10:42	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			3/13/13 10:42	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:42	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 10:42	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:42	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 10:42	DRS	A
Methyl t-Butyl Ether	177	ug/L		5.0	0.90	EPA 524.2			3/14/13 00:11	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			3/13/13 10:42	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			3/13/13 10:42	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:42	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			3/13/13 10:42	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 10:42	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:42	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 10:42	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 10:42	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 10:42	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 10:42	DRS	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			3/13/13 10:42	DRS	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 10:42	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002002** Date Collected: 3/8/2013 09:55 Matrix: Water

Sample ID: **DW-005F_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			3/13/13 10:42	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:42	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 10:42	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 10:42	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 10:42	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 10:42	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 10:42	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			3/13/13 10:42	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 10:42	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 10:42	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 10:42	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 10:42	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 10:42	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	95	%		70-130		EPA 524.2			3/13/13 10:42	DRS	A
4-Bromofluorobenzene (S)	97.3	%		70-130		EPA 524.2			3/13/13 10:42	DRS	A
1,2-Dichlorobenzene-d4 (S)	93.9	%		70-130		EPA 524.2			3/14/13 00:11	DRS	B
4-Bromofluorobenzene (S)	93.8	%		70-130		EPA 524.2			3/14/13 00:11	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002003** Date Collected: 3/8/2013 09:50 Matrix: Water

Sample ID: **DW-005G_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			3/13/13 20:44	DRS	B
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 20:44	DRS	B
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 20:44	DRS	B
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			3/13/13 20:44	DRS	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 20:44	DRS	B
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			3/13/13 20:44	DRS	B
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 20:44	DRS	B
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 20:44	DRS	B
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 20:44	DRS	B
2-Butanone	7.1	ug/L		2.5	1.3	EPA 524.2			3/13/13 20:44	DRS	B
tert-Butyl Alcohol	7.3	ug/L		5.0	1.4	EPA 524.2			3/13/13 20:44	DRS	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 20:44	DRS	B
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 20:44	DRS	B
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 20:44	DRS	B
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 20:44	DRS	B
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 20:44	DRS	B
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 20:44	DRS	B
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 20:44	DRS	B
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			3/13/13 20:44	DRS	B
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 20:44	DRS	B
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 20:44	DRS	B
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 20:44	DRS	B
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 20:44	DRS	B
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 20:44	DRS	B
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 20:44	DRS	B
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 20:44	DRS	B
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 20:44	DRS	B
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			3/13/13 20:44	DRS	B
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			3/13/13 20:44	DRS	B
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 20:44	DRS	B
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 20:44	DRS	B
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B

ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002003** Date Collected: 3/8/2013 09:50 Matrix: Water

Sample ID: **DW-005G_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 20:44	DRS	B
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 20:44	DRS	B
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 20:44	DRS	B
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 20:44	DRS	B
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 20:44	DRS	B
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 20:44	DRS	B
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 20:44	DRS	B
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 20:44	DRS	B
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			3/13/13 20:44	DRS	B
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 20:44	DRS	B
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 20:44	DRS	B
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 20:44	DRS	B
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 20:44	DRS	B
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			3/13/13 20:44	DRS	B
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			3/13/13 20:44	DRS	B
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 20:44	DRS	B
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			3/13/13 20:44	DRS	B
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 20:44	DRS	B
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 20:44	DRS	B
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 20:44	DRS	B
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 20:44	DRS	B
Methyl t-Butyl Ether	4.5	ug/L		0.50	0.090	EPA 524.2			3/13/13 20:44	DRS	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			3/13/13 20:44	DRS	B
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			3/13/13 20:44	DRS	B
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 20:44	DRS	B
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			3/13/13 20:44	DRS	B
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 20:44	DRS	B
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 20:44	DRS	B
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 20:44	DRS	B
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 20:44	DRS	B
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 20:44	DRS	B
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 20:44	DRS	B
Tetrahydrofuran	3.6	ug/L		2.5	0.81	EPA 524.2			3/13/13 20:44	DRS	B
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 20:44	DRS	B

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002003** Date Collected: 3/8/2013 09:50 Matrix: Water

Sample ID: **DW-005G_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			3/13/13 20:44	DRS	B
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 20:44	DRS	B
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 20:44	DRS	B
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 20:44	DRS	B
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 20:44	DRS	B
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 20:44	DRS	B
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 20:44	DRS	B
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			3/13/13 20:44	DRS	B
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 20:44	DRS	B
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 20:44	DRS	B
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 20:44	DRS	B
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 20:44	DRS	B
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 20:44	DRS	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	97.7	%		70-130		EPA 524.2			3/13/13 20:44	DRS	B
4-Bromofluorobenzene (S)	92.3	%		70-130		EPA 524.2			3/13/13 20:44	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002004** Date Collected: 3/8/2013 09:45 Matrix: Water

Sample ID: **DW-005H_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.8J	ug/L		5.0	2.2	EPA 524.2			3/13/13 11:33	DRS	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 11:33	DRS	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 11:33	DRS	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			3/13/13 11:33	DRS	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 11:33	DRS	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			3/13/13 11:33	DRS	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 11:33	DRS	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 11:33	DRS	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 11:33	DRS	A
2-Butanone	7.4	ug/L		2.5	1.3	EPA 524.2			3/13/13 11:33	DRS	A
tert-Butyl Alcohol	135	ug/L		25.0	7.0	EPA 524.2			3/14/13 00:36	DRS	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 11:33	DRS	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 11:33	DRS	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 11:33	DRS	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 11:33	DRS	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 11:33	DRS	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			3/13/13 11:33	DRS	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 11:33	DRS	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			3/13/13 11:33	DRS	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 11:33	DRS	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 11:33	DRS	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 11:33	DRS	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 11:33	DRS	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 11:33	DRS	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 11:33	DRS	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 11:33	DRS	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 11:33	DRS	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			3/13/13 11:33	DRS	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			3/13/13 11:33	DRS	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 11:33	DRS	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 11:33	DRS	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002004** Date Collected: 3/8/2013 09:45 Matrix: Water

Sample ID: **DW-005H_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 11:33	DRS	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 11:33	DRS	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 11:33	DRS	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 11:33	DRS	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 11:33	DRS	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 11:33	DRS	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 11:33	DRS	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 11:33	DRS	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			3/13/13 11:33	DRS	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 11:33	DRS	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			3/13/13 11:33	DRS	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 11:33	DRS	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			3/13/13 11:33	DRS	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			3/13/13 11:33	DRS	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			3/13/13 11:33	DRS	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			3/13/13 11:33	DRS	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			3/13/13 11:33	DRS	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 11:33	DRS	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			3/13/13 11:33	DRS	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 11:33	DRS	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 11:33	DRS	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			3/13/13 11:33	DRS	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			3/13/13 11:33	DRS	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			3/13/13 11:33	DRS	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 11:33	DRS	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			3/13/13 11:33	DRS	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			3/13/13 11:33	DRS	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 11:33	DRS	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			3/13/13 11:33	DRS	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			3/13/13 11:33	DRS	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			3/13/13 11:33	DRS	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			3/13/13 11:33	DRS	A
Tetrahydrofuran	6.2	ug/L		2.5	0.81	EPA 524.2			3/13/13 11:33	DRS	A
Toluene	0.16J	ug/L		0.50	0.12	EPA 524.2			3/13/13 11:33	DRS	A

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ANALYTICAL RESULTS

Workorder: 1016002 Drinking Water (03/08/13)

Lab ID: **1016002004** Date Collected: 3/8/2013 09:45 Matrix: Water

Sample ID: **DW-005H_20130308_N** Date Received: 3/8/2013 19:52

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		1.5	0.27	EPA 524.2			3/13/13 11:33	DRS	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 11:33	DRS	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			3/13/13 11:33	DRS	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			3/13/13 11:33	DRS	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			3/13/13 11:33	DRS	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			3/13/13 11:33	DRS	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			3/13/13 11:33	DRS	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			3/13/13 11:33	DRS	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			3/13/13 11:33	DRS	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			3/13/13 11:33	DRS	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			3/13/13 11:33	DRS	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			3/13/13 11:33	DRS	A
mp-Xylene	ND	ug/L		1.0	0.21	EPA 524.2			3/13/13 11:33	DRS	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	94.8	%		70-130		EPA 524.2			3/13/13 11:33	DRS	A
4-Bromofluorobenzene (S)	98	%		70-130		EPA 524.2			3/13/13 11:33	DRS	A
1,2-Dichlorobenzene-d4 (S)	79.5	%		70-130		EPA 524.2			3/14/13 00:36	DRS	B
4-Bromofluorobenzene (S)	90	%		70-130		EPA 524.2			3/14/13 00:36	DRS	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	SM20-4500-Cl G			3/9/13 06:05	MSA	D

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Anna G Milliken
Technical Manager

2002

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

1016002

Co. Name: REPSG, Inc.
Contact (Report to): Brenda Kellogg
Phone: 215-789-3220
Address: 6901 Kingsessing Ave. Phila, PA. 19142
Bill to (if different than Report to): Same
PO#: 7901
Project Name/#: Calvert City/5977
ALSI Quote #:
TAT: Normal-Standard TAT is 10-12 business days. 5 day
Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? Y / N: bmcgahan@repsg.com, jmanuel@repsg.com
Fax? Y / N No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	***Container Type	***Container Size	** Preservative	ANALYSES/METHOD REQUESTED	Enter Number of Containers Per Analysis
1	DW-005A	Pre Vapor/Pre Carbon	3/6/13	1000	G	DW				Residual Chlorine, VOCs by 524.2, Initial Final Oxygenate	2
2	DW-005E	Post Vapor/Pre Carbon	3/6/13	955	G	DW					2
3	DW-005G	Post Vapor/Mid Carbon	3/6/13	950	G	DW					2
4	DW-005H	Post Vapor/Post Carbon	3/6/13	945	G	DW					2
5											
6											
7											
8											

SAMPLED BY (Please Print): M. Ramani
LOGGED BY(signature): DATE 3/8/13
REVIEWED BY(signature): DATE 3/12/13

	Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1		3/8/13	1530	2	3/8	1530
3		3/8/13	1752	4	3/8	1730
5		3/8	1952	6	3/8	1952
7				8		
9				10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; SDWA Format?; State Samples Collected in?: MD, NJ, NY, PA
If yes, format type: Other
EDDs Required? Equis
DOD Criteria Required?

ALSI FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.
Container in good condition? N
COC/Labels complete/accurate? Y N
Received on ice? Y N
Custody seals Present? Y N
(if present) Seals Intact? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Correct containers? Y N

Incident/Client Name Required:
Performed by:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oi=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

New Jersey ACCUTEST LABORATORIES

03/28/13

Technical Report for

REPSG, Inc.

Calvert Citgo, Northeast, MD

5977 PO#7916

Accutest Job Number: JB31399

Sampling Date: 03/13/13

Report to:

REPSG, Inc.

JManuel@repsg.com

ATTN: James Manuel

Total number of pages in report: **25**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Michelle OBrien 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

Sections: 1 2 3 4 5

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Sample Summary

REPSG, Inc.

Job No: JB31399

Calvert Citgo, Northeast, MD
Project No: 5977 PO#7916

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB31399-1	03/13/13	08:00	MR	03/14/13	AIR	Air	AE-001
JB31399-2	03/13/13	11:00	MR	03/14/13	AIR	Air	AE-002
JB31399-3	03/13/13	14:00	MR	03/14/13	AIR	Air	AE-003
JB31399-4	03/13/13	16:30	MR	03/14/13	AIR	Air	AE-004

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	REPSG, Inc.	**Job No**	JB31399
Site:	Calvert Citgo, Northeast, MD	**Report Date**	3/22/2013 12:48:54 P

On 03/14/2013, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB31399 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method TO-15

Matrix: AIR **Batch ID:** VW1647

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB31508-1DUP were used as the QC samples indicated.

Matrix: AIR **Batch ID:** VW1648

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB31508-13DUP were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB31399
Account: REPSG, Inc.
Project: Calvert Citgo, Northeast, MD
Collected: 03/13/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB31399-1	**AE-001**					
Benzene		116000	10000	1400	ppbv	TO-15
Cyclohexane		80700	10000	2500	ppbv	TO-15
Ethylbenzene		21600	320	47	ppbv	TO-15
4-Ethyltoluene		2390	320	45	ppbv	TO-15
Heptane		159000	10000	1400	ppbv	TO-15
Hexane		979000	10000	2500	ppbv	TO-15
1,2,4-Trimethylbenzene		7010	320	46	ppbv	TO-15
1,3,5-Trimethylbenzene		2780	320	71	ppbv	TO-15
2,2,4-Trimethylpentane		75900	10000	1500	ppbv	TO-15
Toluene		275000	10000	1600	ppbv	TO-15
m,p-Xylene		72800	320	92	ppbv	TO-15
o-Xylene		19200	320	59	ppbv	TO-15
Xylenes (total)		92100	320	59	ppbv	TO-15
Benzene		371000	32000	4500	ug/m3	TO-15
Cyclohexane		278000	34000	8600	ug/m3	TO-15
Ethylbenzene		93800	1400	200	ug/m3	TO-15
4-Ethyltoluene		11700	1600	220	ug/m3	TO-15
Heptane		652000	41000	5700	ug/m3	TO-15
Hexane		3450000	35000	8800	ug/m3	TO-15
1,2,4-Trimethylbenzene		34500	1600	230	ug/m3	TO-15
1,3,5-Trimethylbenzene		13700	1600	350	ug/m3	TO-15
2,2,4-Trimethylpentane		355000	47000	7000	ug/m3	TO-15
Toluene		1040000	38000	6000	ug/m3	TO-15
m,p-Xylene		316000	1400	400	ug/m3	TO-15
o-Xylene		83400	1400	260	ug/m3	TO-15
Xylenes (total)		400000	1400	260	ug/m3	TO-15
JB31399-2	**AE-002**					
Benzene		90800	10000	1400	ppbv	TO-15
Cyclohexane		68700	10000	2500	ppbv	TO-15
Ethylbenzene		30500	320	47	ppbv	TO-15
4-Ethyltoluene		5000	320	45	ppbv	TO-15
Heptane		134000	10000	1400	ppbv	TO-15
Hexane		771000	10000	2500	ppbv	TO-15
1,2,4-Trimethylbenzene		15600	320	46	ppbv	TO-15
1,3,5-Trimethylbenzene		5890	320	71	ppbv	TO-15
2,2,4-Trimethylpentane		60300	10000	1500	ppbv	TO-15
Toluene		238000	10000	1600	ppbv	TO-15
m,p-Xylene		83700	320	92	ppbv	TO-15
o-Xylene		30300	320	59	ppbv	TO-15
Xylenes (total)		114000	320	59	ppbv	TO-15
Benzene		290000	32000	4500	ug/m3	TO-15

Summary of Hits

Job Number: JB31399
Account: REPSG, Inc.
Project: Calvert Citgo, Northeast, MD
Collected: 03/13/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Cyclohexane		236000	34000	8600	ug/m3	TO-15
Ethylbenzene		132000	1400	200	ug/m3	TO-15
4-Ethyltoluene		24600	1600	220	ug/m3	TO-15
Heptane		549000	41000	5700	ug/m3	TO-15
Hexane		2720000	35000	8800	ug/m3	TO-15
1,2,4-Trimethylbenzene		76700	1600	230	ug/m3	TO-15
1,3,5-Trimethylbenzene		29000	1600	350	ug/m3	TO-15
2,2,4-Trimethylpentane		282000	47000	7000	ug/m3	TO-15
Toluene		897000	38000	6000	ug/m3	TO-15
m,p-Xylene		364000	1400	400	ug/m3	TO-15
o-Xylene		132000	1400	260	ug/m3	TO-15
Xylenes (total)		495000	1400	260	ug/m3	TO-15
JB31399-3	**AE-003**					
Benzene		99200	10000	1400	ppbv	TO-15
Cyclohexane		62300	10000	2500	ppbv	TO-15
Ethylbenzene		26000	320	47	ppbv	TO-15
4-Ethyltoluene		3830	320	45	ppbv	TO-15
Heptane		134000	10000	1400	ppbv	TO-15
Hexane		686000	10000	2500	ppbv	TO-15
1,2,4-Trimethylbenzene		11800	320	46	ppbv	TO-15
1,3,5-Trimethylbenzene		4640	320	71	ppbv	TO-15
2,2,4-Trimethylpentane		60400	10000	1500	ppbv	TO-15
Toluene		261000	10000	1600	ppbv	TO-15
m,p-Xylene		83100	320	92	ppbv	TO-15
o-Xylene		25400	320	59	ppbv	TO-15
Xylenes (total)		109000	320	59	ppbv	TO-15
Benzene		317000	32000	4500	ug/m3	TO-15
Cyclohexane		214000	34000	8600	ug/m3	TO-15
Ethylbenzene		113000	1400	200	ug/m3	TO-15
4-Ethyltoluene		18800	1600	220	ug/m3	TO-15
Heptane		549000	41000	5700	ug/m3	TO-15
Hexane		2420000	35000	8800	ug/m3	TO-15
1,2,4-Trimethylbenzene		58000	1600	230	ug/m3	TO-15
1,3,5-Trimethylbenzene		22800	1600	350	ug/m3	TO-15
2,2,4-Trimethylpentane		282000	47000	7000	ug/m3	TO-15
Toluene		984000	38000	6000	ug/m3	TO-15
m,p-Xylene		361000	1400	400	ug/m3	TO-15
o-Xylene		110000	1400	260	ug/m3	TO-15
Xylenes (total)		473000	1400	260	ug/m3	TO-15
JB31399-4	**AE-004**					
Benzene		75300	10000	1400	ppbv	TO-15

Summary of Hits

Job Number: JB31399
Account: REPSG, Inc.
Project: Calvert Citgo, Northeast, MD
Collected: 03/13/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Cyclohexane		62400	320	81	ppbv	TO-15
Ethylbenzene		24000	320	47	ppbv	TO-15
4-Ethyltoluene		3640	320	45	ppbv	TO-15
Heptane		93700	10000	1400	ppbv	TO-15
Hexane		570000	10000	2500	ppbv	TO-15
1,2,4-Trimethylbenzene		11400	320	46	ppbv	TO-15
1,3,5-Trimethylbenzene		4380	320	71	ppbv	TO-15
2,2,4-Trimethylpentane		40700	10000	1500	ppbv	TO-15
Toluene		166000	10000	1600	ppbv	TO-15
m,p-Xylene		80800	320	92	ppbv	TO-15
o-Xylene		23600	320	59	ppbv	TO-15
Xylenes (total)		104000	320	59	ppbv	TO-15
Benzene		241000	32000	4500	ug/m3	TO-15
Cyclohexane		215000	1100	280	ug/m3	TO-15
Ethylbenzene		104000	1400	200	ug/m3	TO-15
4-Ethyltoluene		17900	1600	220	ug/m3	TO-15
Heptane		384000	41000	5700	ug/m3	TO-15
Hexane		2010000	35000	8800	ug/m3	TO-15
1,2,4-Trimethylbenzene		56000	1600	230	ug/m3	TO-15
1,3,5-Trimethylbenzene		21500	1600	350	ug/m3	TO-15
2,2,4-Trimethylpentane		190000	47000	7000	ug/m3	TO-15
Toluene		626000	38000	6000	ug/m3	TO-15
m,p-Xylene		351000	1400	400	ug/m3	TO-15
o-Xylene		103000	1400	260	ug/m3	TO-15
Xylenes (total)		452000	1400	260	ug/m3	TO-15

New Jersey ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: AE-001
Lab Sample ID: JB31399-1
Matrix: AIR - Air Summa ID: A302,A804,A728
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W40888.D	200	03/19/13	YMH	n/a	n/a	VW1647
Run #2	W40912.D	10000	03/20/13	YMH	n/a	n/a	VW1648

	Initial Volume
Run #1	50.0 ml
Run #2	80.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	320	110	ppbv		ND	760	260	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	320	42	ppbv		ND	710	93	ug/m3
71-43-2	78.11	Benzene	116000 [a]	10000	1400	ppbv		371000 [a]	32000	4500	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	320	49	ppbv		ND	2100	330	ug/m3
75-25-2	252.8	Bromoform	ND	320	46	ppbv		ND	3300	480	ug/m3
74-83-9	94.94	Bromomethane	ND	320	38	ppbv		ND	1200	150	ug/m3
593-60-2	106.9	Bromoethene	ND	320	43	ppbv		ND	1400	190	ug/m3
100-44-7	126	Benzyl Chloride	ND	320	77	ppbv		ND	1600	400	ug/m3
75-15-0	76.14	Carbon disulfide	ND	320	38	ppbv		ND	1000	120	ug/m3
108-90-7	112.6	Chlorobenzene	ND	320	64	ppbv		ND	1500	290	ug/m3
75-00-3	64.52	Chloroethane	ND	320	56	ppbv		ND	840	150	ug/m3
67-66-3	119.4	Chloroform	ND	320	41	ppbv		ND	1600	200	ug/m3
74-87-3	50.49	Chloromethane	ND	320	88	ppbv		ND	660	180	ug/m3
107-05-1	76.53	3-Chloropropene	ND	320	56	ppbv		ND	1000	180	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	320	50	ppbv		ND	1700	260	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	320	31	ppbv		ND	2000	200	ug/m3
110-82-7	84.16	Cyclohexane	80700 [a]	10000	2500	ppbv		278000 [a]	34000	8600	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	320	31	ppbv		ND	1300	130	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	320	36	ppbv		ND	1300	140	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	320	47	ppbv		ND	2500	360	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	320	43	ppbv		ND	1300	170	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	320	54	ppbv		ND	1500	250	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	320	190	ppbv		ND	1200	680	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	320	38	ppbv		ND	1600	190	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	320	56	ppbv		ND	2700	480	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	320	44	ppbv		ND	1300	170	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	320	40	ppbv		ND	1300	160	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	320	53	ppbv		ND	1500	240	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	320	45	ppbv		ND	1900	270	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	320	62	ppbv		ND	1900	370	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	320	95	ppbv		ND	1900	570	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	320	38	ppbv		ND	1500	170	ug/m3

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-001
Lab Sample ID: JB31399-1
Matrix: AIR - Air Summa ID: A302,A804,A728
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	800	270	ppbv		ND	1500	510	ug/m3
100-41-4	106.2	Ethylbenzene	21600	320	47	ppbv		93800	1400	200	ug/m3
141-78-6	88	Ethyl Acetate	ND	320	200	ppbv		ND	1200	720	ug/m3
622-96-8	120.2	4-Ethyltoluene	2390	320	45	ppbv		11700	1600	220	ug/m3
76-13-1	187.4	Freon 113	ND	320	44	ppbv		ND	2500	340	ug/m3
76-14-2	170.9	Freon 114	ND	320	37	ppbv		ND	2200	260	ug/m3
142-82-5	100.2	Heptane	159000 [a]	10000	1400	ppbv		652000 [a]	41000	5700	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	320	49	ppbv		ND	3400	520	ug/m3
110-54-3	86.17	Hexane	979000 [a]	10000	2500	ppbv		3450000 [a]	35000	8800	ug/m3
591-78-6	100	2-Hexanone	ND	320	82	ppbv		ND	1300	340	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	320	100	ppbv		ND	790	250	ug/m3
75-09-2	84.94	Methylene chloride	ND	320	88	ppbv		ND	1100	310	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	320	67	ppbv		ND	940	200	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	320	140	ppbv		ND	1300	570	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	320	72	ppbv		ND	1200	260	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	320	61	ppbv		ND	1300	250	ug/m3
115-07-1	42	Propylene	ND	800	55	ppbv		ND	1400	94	ug/m3
100-42-5	104.1	Styrene	ND	320	39	ppbv		ND	1400	170	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	320	39	ppbv		ND	1700	210	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	320	54	ppbv		ND	2200	370	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	320	56	ppbv		ND	1700	310	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	320	150	ppbv		ND	2400	1100	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	7010	320	46	ppbv		34500	1600	230	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	2780	320	71	ppbv		13700	1600	350	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	75900 [a]	10000	1500	ppbv		355000 [a]	47000	7000	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	320	78	ppbv		ND	970	240	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	64	39	ppbv		ND	430	260	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	320	120	ppbv		ND	940	350	ug/m3
108-88-3	92.14	Toluene	275000 [a]	10000	1600	ppbv		1040000 [a]	38000	6000	ug/m3
79-01-6	131.4	Trichloroethylene	ND	64	58	ppbv		ND	340	310	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	320	45	ppbv		ND	1800	250	ug/m3
75-01-4	62.5	Vinyl chloride	ND	320	35	ppbv		ND	820	89	ug/m3
108-05-4	86	Vinyl Acetate	ND	320	87	ppbv		ND	1100	310	ug/m3
	106.2	m,p-Xylene	72800	320	92	ppbv		316000	1400	400	ug/m3
95-47-6	106.2	o-Xylene	19200	320	59	ppbv		83400	1400	260	ug/m3
1330-20-7	106.2	Xylenes (total)	92100	320	59	ppbv		400000	1400	260	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%	97%	65-128%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AE-001		
Lab Sample ID:	JB31399-1	**Date Sampled:**	03/13/13
Matrix:	AIR - Air Summa ID: A302, A804, A728	**Date Received:**	03/14/13
Method:	TO-15	**Percent Solids:**	n/a
Project:	Calvert Citgo, Northeast, MD		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-002
Lab Sample ID: JB31399-2
Matrix: AIR - Air Summa ID: A819,A691,A618
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W40889.D	200	03/19/13	YMH	n/a	n/a	VW1647
Run #2	W40913.D	10000	03/20/13	YMH	n/a	n/a	VW1648

	Initial Volume
Run #1	50.0 ml
Run #2	80.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	320	110	ppbv		ND	760	260	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	320	42	ppbv		ND	710	93	ug/m3
71-43-2	78.11	Benzene	90800 [a]	10000	1400	ppbv		290000 [a]	32000	4500	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	320	49	ppbv		ND	2100	330	ug/m3
75-25-2	252.8	Bromoform	ND	320	46	ppbv		ND	3300	480	ug/m3
74-83-9	94.94	Bromomethane	ND	320	38	ppbv		ND	1200	150	ug/m3
593-60-2	106.9	Bromoethene	ND	320	43	ppbv		ND	1400	190	ug/m3
100-44-7	126	Benzyl Chloride	ND	320	77	ppbv		ND	1600	400	ug/m3
75-15-0	76.14	Carbon disulfide	ND	320	38	ppbv		ND	1000	120	ug/m3
108-90-7	112.6	Chlorobenzene	ND	320	64	ppbv		ND	1500	290	ug/m3
75-00-3	64.52	Chloroethane	ND	320	56	ppbv		ND	840	150	ug/m3
67-66-3	119.4	Chloroform	ND	320	41	ppbv		ND	1600	200	ug/m3
74-87-3	50.49	Chloromethane	ND	320	88	ppbv		ND	660	180	ug/m3
107-05-1	76.53	3-Chloropropene	ND	320	56	ppbv		ND	1000	180	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	320	50	ppbv		ND	1700	260	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	320	31	ppbv		ND	2000	200	ug/m3
110-82-7	84.16	Cyclohexane	68700 [a]	10000	2500	ppbv		236000 [a]	34000	8600	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	320	31	ppbv		ND	1300	130	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	320	36	ppbv		ND	1300	140	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	320	47	ppbv		ND	2500	360	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	320	43	ppbv		ND	1300	170	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	320	54	ppbv		ND	1500	250	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	320	190	ppbv		ND	1200	680	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	320	38	ppbv		ND	1600	190	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	320	56	ppbv		ND	2700	480	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	320	44	ppbv		ND	1300	170	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	320	40	ppbv		ND	1300	160	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	320	53	ppbv		ND	1500	240	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	320	45	ppbv		ND	1900	270	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	320	62	ppbv		ND	1900	370	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	320	95	ppbv		ND	1900	570	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	320	38	ppbv		ND	1500	170	ug/m3

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-002
Lab Sample ID: JB31399-2
Matrix: AIR - Air Summa ID: A819,A691,A618
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	800	270	ppbv		ND	1500	510	ug/m3
100-41-4	106.2	Ethylbenzene	30500	320	47	ppbv		132000	1400	200	ug/m3
141-78-6	88	Ethyl Acetate	ND	320	200	ppbv		ND	1200	720	ug/m3
622-96-8	120.2	4-Ethyltoluene	5000	320	45	ppbv		24600	1600	220	ug/m3
76-13-1	187.4	Freon 113	ND	320	44	ppbv		ND	2500	340	ug/m3
76-14-2	170.9	Freon 114	ND	320	37	ppbv		ND	2200	260	ug/m3
142-82-5	100.2	Heptane	134000 [a]	10000	1400	ppbv		549000 [a]	41000	5700	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	320	49	ppbv		ND	3400	520	ug/m3
110-54-3	86.17	Hexane	771000 [a]	10000	2500	ppbv		2720000 [a]	35000	8800	ug/m3
591-78-6	100	2-Hexanone	ND	320	82	ppbv		ND	1300	340	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	320	100	ppbv		ND	790	250	ug/m3
75-09-2	84.94	Methylene chloride	ND	320	88	ppbv		ND	1100	310	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	320	67	ppbv		ND	940	200	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	320	140	ppbv		ND	1300	570	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	320	72	ppbv		ND	1200	260	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	320	61	ppbv		ND	1300	250	ug/m3
115-07-1	42	Propylene	ND	800	55	ppbv		ND	1400	94	ug/m3
100-42-5	104.1	Styrene	ND	320	39	ppbv		ND	1400	170	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	320	39	ppbv		ND	1700	210	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	320	54	ppbv		ND	2200	370	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	320	56	ppbv		ND	1700	310	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	320	150	ppbv		ND	2400	1100	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	15600	320	46	ppbv		76700	1600	230	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	5890	320	71	ppbv		29000	1600	350	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	60300 [a]	10000	1500	ppbv		282000 [a]	47000	7000	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	320	78	ppbv		ND	970	240	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	64	39	ppbv		ND	430	260	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	320	120	ppbv		ND	940	350	ug/m3
108-88-3	92.14	Toluene	238000 [a]	10000	1600	ppbv		897000 [a]	38000	6000	ug/m3
79-01-6	131.4	Trichloroethylene	ND	64	58	ppbv		ND	340	310	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	320	45	ppbv		ND	1800	250	ug/m3
75-01-4	62.5	Vinyl chloride	ND	320	35	ppbv		ND	820	89	ug/m3
108-05-4	86	Vinyl Acetate	ND	320	87	ppbv		ND	1100	310	ug/m3
	106.2	m,p-Xylene	83700	320	92	ppbv		364000	1400	400	ug/m3
95-47-6	106.2	o-Xylene	30300	320	59	ppbv		132000	1400	260	ug/m3
1330-20-7	106.2	Xylenes (total)	114000	320	59	ppbv		495000	1400	260	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%	97%	65-128%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AE-002		
Lab Sample ID:	JB31399-2	**Date Sampled:**	03/13/13
Matrix:	AIR - Air Summa ID: A819, A691, A618	**Date Received:**	03/14/13
Method:	TO-15	**Percent Solids:**	n/a
Project:	Calvert Citgo, Northeast, MD		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-003
Lab Sample ID: JB31399-3
Matrix: AIR - Air Summa ID: A892,A424,A793
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W40890.D	200	03/19/13	YMH	n/a	n/a	VW1647
Run #2	W40914.D	10000	03/20/13	YMH	n/a	n/a	VW1648

	Initial Volume
Run #1	50.0 ml
Run #2	80.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	320	110	ppbv		ND	760	260	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	320	42	ppbv		ND	710	93	ug/m3
71-43-2	78.11	Benzene	99200 [a]	10000	1400	ppbv		317000 [a]	32000	4500	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	320	49	ppbv		ND	2100	330	ug/m3
75-25-2	252.8	Bromoform	ND	320	46	ppbv		ND	3300	480	ug/m3
74-83-9	94.94	Bromomethane	ND	320	38	ppbv		ND	1200	150	ug/m3
593-60-2	106.9	Bromoethene	ND	320	43	ppbv		ND	1400	190	ug/m3
100-44-7	126	Benzyl Chloride	ND	320	77	ppbv		ND	1600	400	ug/m3
75-15-0	76.14	Carbon disulfide	ND	320	38	ppbv		ND	1000	120	ug/m3
108-90-7	112.6	Chlorobenzene	ND	320	64	ppbv		ND	1500	290	ug/m3
75-00-3	64.52	Chloroethane	ND	320	56	ppbv		ND	840	150	ug/m3
67-66-3	119.4	Chloroform	ND	320	41	ppbv		ND	1600	200	ug/m3
74-87-3	50.49	Chloromethane	ND	320	88	ppbv		ND	660	180	ug/m3
107-05-1	76.53	3-Chloropropene	ND	320	56	ppbv		ND	1000	180	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	320	50	ppbv		ND	1700	260	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	320	31	ppbv		ND	2000	200	ug/m3
110-82-7	84.16	Cyclohexane	62300 [a]	10000	2500	ppbv		214000 [a]	34000	8600	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	320	31	ppbv		ND	1300	130	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	320	36	ppbv		ND	1300	140	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	320	47	ppbv		ND	2500	360	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	320	43	ppbv		ND	1300	170	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	320	54	ppbv		ND	1500	250	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	320	190	ppbv		ND	1200	680	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	320	38	ppbv		ND	1600	190	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	320	56	ppbv		ND	2700	480	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	320	44	ppbv		ND	1300	170	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	320	40	ppbv		ND	1300	160	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	320	53	ppbv		ND	1500	240	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	320	45	ppbv		ND	1900	270	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	320	62	ppbv		ND	1900	370	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	320	95	ppbv		ND	1900	570	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	320	38	ppbv		ND	1500	170	ug/m3

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-003
Lab Sample ID: JB31399-3
Matrix: AIR - Air Summa ID: A892,A424,A793
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	800	270	ppbv		ND	1500	510	ug/m3
100-41-4	106.2	Ethylbenzene	26000	320	47	ppbv		113000	1400	200	ug/m3
141-78-6	88	Ethyl Acetate	ND	320	200	ppbv		ND	1200	720	ug/m3
622-96-8	120.2	4-Ethyltoluene	3830	320	45	ppbv		18800	1600	220	ug/m3
76-13-1	187.4	Freon 113	ND	320	44	ppbv		ND	2500	340	ug/m3
76-14-2	170.9	Freon 114	ND	320	37	ppbv		ND	2200	260	ug/m3
142-82-5	100.2	Heptane	134000 [a]	10000	1400	ppbv		549000 [a]	41000	5700	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	320	49	ppbv		ND	3400	520	ug/m3
110-54-3	86.17	Hexane	686000 [a]	10000	2500	ppbv		2420000 [a]	35000	8800	ug/m3
591-78-6	100	2-Hexanone	ND	320	82	ppbv		ND	1300	340	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	320	100	ppbv		ND	790	250	ug/m3
75-09-2	84.94	Methylene chloride	ND	320	88	ppbv		ND	1100	310	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	320	67	ppbv		ND	940	200	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	320	140	ppbv		ND	1300	570	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	320	72	ppbv		ND	1200	260	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	320	61	ppbv		ND	1300	250	ug/m3
115-07-1	42	Propylene	ND	800	55	ppbv		ND	1400	94	ug/m3
100-42-5	104.1	Styrene	ND	320	39	ppbv		ND	1400	170	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	320	39	ppbv		ND	1700	210	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	320	54	ppbv		ND	2200	370	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	320	56	ppbv		ND	1700	310	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	320	150	ppbv		ND	2400	1100	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	11800	320	46	ppbv		58000	1600	230	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	4640	320	71	ppbv		22800	1600	350	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	60400 [a]	10000	1500	ppbv		282000 [a]	47000	7000	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	320	78	ppbv		ND	970	240	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	64	39	ppbv		ND	430	260	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	320	120	ppbv		ND	940	350	ug/m3
108-88-3	92.14	Toluene	261000 [a]	10000	1600	ppbv		984000 [a]	38000	6000	ug/m3
79-01-6	131.4	Trichloroethylene	ND	64	58	ppbv		ND	340	310	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	320	45	ppbv		ND	1800	250	ug/m3
75-01-4	62.5	Vinyl chloride	ND	320	35	ppbv		ND	820	89	ug/m3
108-05-4	86	Vinyl Acetate	ND	320	87	ppbv		ND	1100	310	ug/m3
	106.2	m,p-Xylene	83100	320	92	ppbv		361000	1400	400	ug/m3
95-47-6	106.2	o-Xylene	25400	320	59	ppbv		110000	1400	260	ug/m3
1330-20-7	106.2	Xylenes (total)	109000	320	59	ppbv		473000	1400	260	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%	94%	65-128%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AE-003		
Lab Sample ID:	JB31399-3	**Date Sampled:**	03/13/13
Matrix:	AIR - Air Summa ID: A892, A424, A793	**Date Received:**	03/14/13
Method:	TO-15	**Percent Solids:**	n/a
Project:	Calvert Citgo, Northeast, MD		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-004
Lab Sample ID: JB31399-4
Matrix: AIR - Air Summa ID: A288, A549, A544
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W40891.D	200	03/19/13	YMH	n/a	n/a	VW1647
Run #2	W40915.D	10000	03/20/13	YMH	n/a	n/a	VW1648

	Initial Volume
Run #1	50.0 ml
Run #2	80.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	320	110	ppbv		ND	760	260	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	320	42	ppbv		ND	710	93	ug/m3
71-43-2	78.11	Benzene	75300 [a]	10000	1400	ppbv		241000 [a]	32000	4500	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	320	49	ppbv		ND	2100	330	ug/m3
75-25-2	252.8	Bromoform	ND	320	46	ppbv		ND	3300	480	ug/m3
74-83-9	94.94	Bromomethane	ND	320	38	ppbv		ND	1200	150	ug/m3
593-60-2	106.9	Bromoethene	ND	320	43	ppbv		ND	1400	190	ug/m3
100-44-7	126	Benzyl Chloride	ND	320	77	ppbv		ND	1600	400	ug/m3
75-15-0	76.14	Carbon disulfide	ND	320	38	ppbv		ND	1000	120	ug/m3
108-90-7	112.6	Chlorobenzene	ND	320	64	ppbv		ND	1500	290	ug/m3
75-00-3	64.52	Chloroethane	ND	320	56	ppbv		ND	840	150	ug/m3
67-66-3	119.4	Chloroform	ND	320	41	ppbv		ND	1600	200	ug/m3
74-87-3	50.49	Chloromethane	ND	320	88	ppbv		ND	660	180	ug/m3
107-05-1	76.53	3-Chloropropene	ND	320	56	ppbv		ND	1000	180	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	320	50	ppbv		ND	1700	260	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	320	31	ppbv		ND	2000	200	ug/m3
110-82-7	84.16	Cyclohexane	62400	320	81	ppbv		215000	1100	280	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	320	31	ppbv		ND	1300	130	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	320	36	ppbv		ND	1300	140	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	320	47	ppbv		ND	2500	360	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	320	43	ppbv		ND	1300	170	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	320	54	ppbv		ND	1500	250	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	320	190	ppbv		ND	1200	680	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	320	38	ppbv		ND	1600	190	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	320	56	ppbv		ND	2700	480	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	320	44	ppbv		ND	1300	170	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	320	40	ppbv		ND	1300	160	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	320	53	ppbv		ND	1500	240	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	320	45	ppbv		ND	1900	270	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	320	62	ppbv		ND	1900	370	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	320	95	ppbv		ND	1900	570	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	320	38	ppbv		ND	1500	170	ug/m3

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AE-004
Lab Sample ID: JB31399-4
Matrix: AIR - Air Summa ID: A288, A549, A544
Method: TO-15
Project: Calvert Citgo, Northeast, MD

Date Sampled: 03/13/13
Date Received: 03/14/13
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	800	270	ppbv		ND	1500	510	ug/m3
100-41-4	106.2	Ethylbenzene	24000	320	47	ppbv		104000	1400	200	ug/m3
141-78-6	88	Ethyl Acetate	ND	320	200	ppbv		ND	1200	720	ug/m3
622-96-8	120.2	4-Ethyltoluene	3640	320	45	ppbv		17900	1600	220	ug/m3
76-13-1	187.4	Freon 113	ND	320	44	ppbv		ND	2500	340	ug/m3
76-14-2	170.9	Freon 114	ND	320	37	ppbv		ND	2200	260	ug/m3
142-82-5	100.2	Heptane	93700 [a]	10000	1400	ppbv		384000 [a]	41000	5700	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	320	49	ppbv		ND	3400	520	ug/m3
110-54-3	86.17	Hexane	570000 [a]	10000	2500	ppbv		2010000 [a]	35000	8800	ug/m3
591-78-6	100	2-Hexanone	ND	320	82	ppbv		ND	1300	340	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	320	100	ppbv		ND	790	250	ug/m3
75-09-2	84.94	Methylene chloride	ND	320	88	ppbv		ND	1100	310	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	320	67	ppbv		ND	940	200	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	320	140	ppbv		ND	1300	570	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	320	72	ppbv		ND	1200	260	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	320	61	ppbv		ND	1300	250	ug/m3
115-07-1	42	Propylene	ND	800	55	ppbv		ND	1400	94	ug/m3
100-42-5	104.1	Styrene	ND	320	39	ppbv		ND	1400	170	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	320	39	ppbv		ND	1700	210	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	320	54	ppbv		ND	2200	370	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	320	56	ppbv		ND	1700	310	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	320	150	ppbv		ND	2400	1100	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	11400	320	46	ppbv		56000	1600	230	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	4380	320	71	ppbv		21500	1600	350	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	40700 [a]	10000	1500	ppbv		190000 [a]	47000	7000	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	320	78	ppbv		ND	970	240	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	64	39	ppbv		ND	430	260	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	320	120	ppbv		ND	940	350	ug/m3
108-88-3	92.14	Toluene	166000 [a]	10000	1600	ppbv		626000 [a]	38000	6000	ug/m3
79-01-6	131.4	Trichloroethylene	ND	64	58	ppbv		ND	340	310	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	320	45	ppbv		ND	1800	250	ug/m3
75-01-4	62.5	Vinyl chloride	ND	320	35	ppbv		ND	820	89	ug/m3
108-05-4	86	Vinyl Acetate	ND	320	87	ppbv		ND	1100	310	ug/m3
	106.2	m,p-Xylene	80800	320	92	ppbv		351000	1400	400	ug/m3
95-47-6	106.2	o-Xylene	23600	320	59	ppbv		103000	1400	260	ug/m3
1330-20-7	106.2	Xylenes (total)	104000	320	59	ppbv		452000	1400	260	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%	94%	65-128%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AE-004		
Lab Sample ID:	JB31399-4	**Date Sampled:**	03/13/13
Matrix:	AIR - Air Summa ID: A288, A549, A544	**Date Received:**	03/14/13
Method:	TO-15	**Percent Solids:**	n/a
Project:	Calvert Citgo, Northeast, MD		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Summa Canister and Flow Controller Log

AIR

PN

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Air Sampling Field Data Sheet

FED-EX Tracking #

Bottle Order Control # MO-3/6/2013-2

PAGE 1 OF 1

Lab Quote #

Lab Job # JB31399

Client / Reporting Information

Company Name: REPSG, Inc.

Address: 6901 Kingsessing Ave. Fl 2

City: Philadelphia State: PA Zip: 19142

Project Contact: E-mail: jmanual@repsg.com

Phone #: 215-729-1557 Fax #: 215-729-1557

Sampler(s) Name(s): M. Ramoni

Project Name: Calvert Citgo

Street:

City: State: MD

Project #: 5977

Client Purchase Order #: 7916

Weather Parameters

Temperature (Fahrenheit)
Start: 50° Maximum:
Stop 50° Minimum:

Atmoshpheric Pressure (inches of Hg)
Start: Maximum:
Stop: Minimum:

Other weather comment:

Requested Analysis

Standard TO-15 Reporting List

Lab Sample #	Field ID / Point of Collection	Air Type: Indoor(I) Soil Vap(SV) Ambient(A)	Sampling Equipment Info: Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.
-1	AE-001		5221	6L	–	3/13/13	800	–	–	MR	3/13/13	Grab	–	–	MR
-2	AE-002		A819	6L	–	3/13/13	1100	–	–	MR	3/13/13	Grab	–	–	MR
-3	AE-003		8009	6L	–	3/13/13	1400	–	–	MR	3/13/13	Grab	–	–	MR
-4	AE-004		4916	6L	–	3/13/13	1630	–	–	MR	3/13/13	Grab	–	–	MR

Turnaround Time (Business days)

Standard - 15 Days
10 Day
5 Day
3 Day
2 Day
1 Day
Other

Approved By:

Date:

Data Deliverable Information

All NJDEP TO-15 is mandatory Full T1

Comm A
Comm B
Reduced T2
Full T1
Other:

Comments / Remarks

Equis EDD

SUMMA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Laboratory: 1	Date Time: 3/8/13 9:00	Received By: 1	Relinquished By: 2 FedEx	Date Time:	Received By: 2
Relinquished by: 3	Date Time: 3/14 14:30	Received By: 3	Relinquished By: 4	Date Time: 3/14/13	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #		

BW

P.G.

5.1 5

JB31399: Chain of Custody

Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB31399 **Client:** REPSG INC **Project:** CALVERT CITGO

Date / Time Received: 3/14/2013 2030 **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted):

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☐		☐
2. Cooler temp verification:			
3. Cooler media:			
4. No, Coolers	0		

Quality Control _Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☐	☑	
2. Bottles received for unspecified tests	☑	☐	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments Analysis is not check off on COC

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB31399: Chain of Custody
Page 2 of 3

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB31399

CSR: Michelle **Response Date:** 3/15/2013

Response: Please run for VTO15STD per B/O MO-3/6/2013-3

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB31399: Chain of Custody
Page 3 of 3

Summa Canister and Flow Controller Log

Job Number: JB31399
Account: REPSG REPSG, Inc.
Project: Calvert Citgo, Northeast, MD
Received: 03/14/13

SUMMA CANISTERS

Shipping							Receiving						
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A302	6	29.4	03/07/13	YXC	CP6036	3W32601.D	JB31399-1	03/15/13	YXC		.5		1
A819	6	29.4	03/07/13	YXC	CP6036	3W32601.D	JB31399-2	03/15/13	YXC		.5		1
A892	6	29.4	03/07/13	YXC	CP6036	3W32601.D	JB31399-3	03/15/13	YXC		.5		1
A288	6	29.4	03/07/13	YXC	CP6036	3W32601.D	JB31399-4	03/15/13	YXC		.2		1

Accutest Bottle Order(s):
MO-3/6/2013-2
MO-3/6/2013-3

Prep Date	Room Temp(F)	Bar Pres "Hg
03/07/13	70	29.92

ATTACHMENT 6: REMEDIAL SYSTEM COMPONENTS DOCUMENTATION

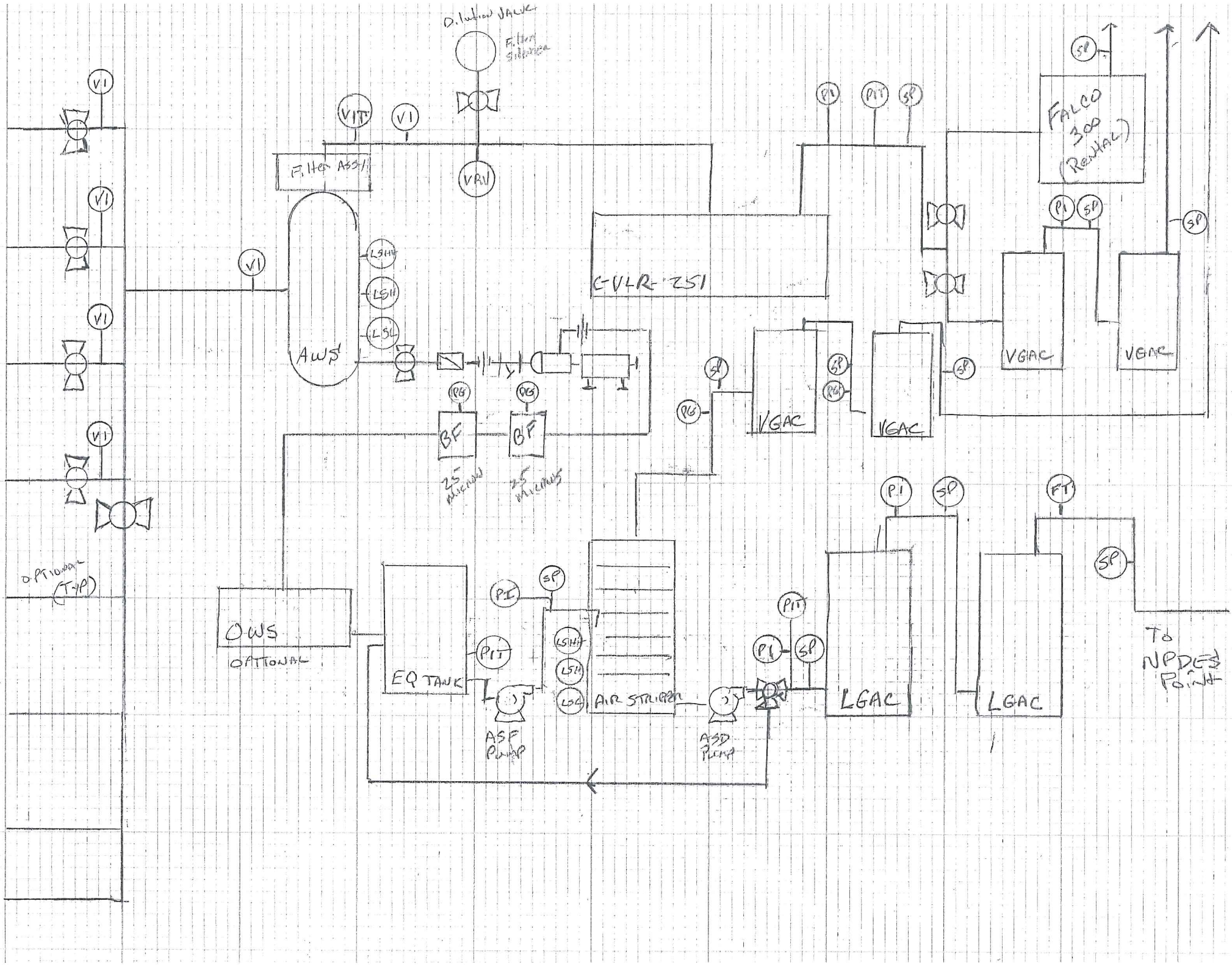
Calvert Citgo

Corrective Action Plan Responses

1. **The number, location and justification for any remediation wells.**
    - A minimum of 7 remediation wells have been laid out for the site. See attached marked up site plan for approximate location. Final location may deviate slightly due to utilities or conflicting structural aspects of the site. The locations were chosen for the purpose of controlling the contaminants from migrating offsite and to capture and remediate the source area as we understand it.
    - Thought should be given to placing 2-3 monitoring/Point of Compliance wells in the grass close to the edge of SR 272.
2. **The diameter, depth and proposed construction for any additional recovery, observation or remediation wells to be installed.**
    - New remediation wells SVE-1 through SVE-6 are suggested to be 4" diameter, 25' deep, screened to 5'. MW-005 will remain as constructed.
3. **Estimated air flow rates and vacuums.**
    - It is assumed that this site will allow for 20- 30 SCFM per well at 17' Hg. It is also assumed that 4 wells maximum will be utilized at a time. Wells will be rotated on an as needed basis.
4. **Details regarding pipe sizing, vacuum, Knock out tanks and off-gas treatment.**
    - All piping will be "home runs" from the remediation wells to the remediation system. These will be 2' pipes. All pipes will tie into a common 4" header pipe in the system trailer.
    - The knock out tank is planned to be a 120 gallon unit with approximately 40 gallons of liquid capacity. This tank will be equipped with an auto drain pump system and float switches to include a "high-high" shutdown.
    - A High efficiency rotary claw vacuum pump will be used to extract the vapors and entrained water.
    - Vapors from this site will be initially treated by the use of a catalytic oxidizer. When the influent vapor stream decreases to a point where Vapor Phase Granular Activated (VGAC) Carbon is more cost effective the Catox will be removed and the airstream will be treated with VGAC.
    - Any vapors removed from the treatment of the removed groundwater will also be treated by VGAC.

- Groundwater will be treated by bag filters, an Oil-Water Separator (OWS), an Air Stripper (AS) and final polishing prior to discharge will be by Liquid Phase Granular Activated Carbon (LGAC).
- See attached Draft P & ID

5. **Details regarding how radius of influence was calculated.**
    - Radius of influence was determined by the data provided from the pilot test performed March 13, 2013. The data was showing vacuum influence at approximately 30 ft. The new wells have been laid out with a 20' ROI in order to provide coverage and overlap of the suspected source area.
6. **Sampling and monitoring parameters, as well as for system operation and maintenance.**
    - GW Sampling- (your section)
    - O & M will be accomplished 2x per month. System samples will be taken and analyzed per permit requirements. Field monitoring will include influent, mid carbon and post treatment PID readings. Anemometer readings will be taken for airflow. Monitoring wells will be periodically checked for influence and monthly for headspace PID readings and Depth to water (DTW).
    - Periodic Influent air samples will be taken in order to help determine the effectiveness of the system. These samples will be analyzed by method TO - 15.
7. **Schedule of permitting, installation and maintenance.**
    - See attached draft schedule
    - Schedule can be condensed, modified or expanded per further input.

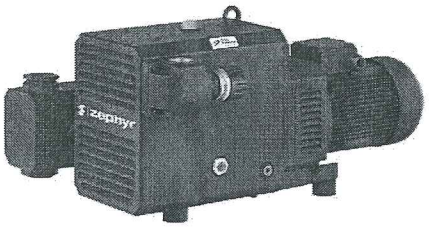

Dilution Valve
Filter Strainer
V1
V1T
V1
Filter Assy
VRV
PI
PIT
SP
FALCO 300 (Rental)
SP
PI
SP
SP
GVLR-251
LSHH
LSH
LSL
AWS
VGAC
VGAC
PG
PG
BF
BF
2.5 micron
2.5 micron
SP
PG
VGAC
VGAC
SP
SP
SP
PI
SP
FT
SP
To NPDES Point
OWS
OPTIONAL
EQ TANK
PIT
PI
SP
LSHH
LSH
LSL
AIR STRIPPER
ASF Pump
ASD Pump
PIT
PI
SP
LGAC
LGAC
Optional (Typ)

Draft Calvert Citgo Schedule																
	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week9	week 10	week 11	week 12	week 13	week 14	week 15	Week 16
Approval to proceed (Client)	X															
DNR Approval				X												
NPDES Permitting	X					X										
Air Permitting	X			X												
Final design		X														
Submittals to Client for Approval				X												
Client Approval				X												
Component Ordering					X		X									
System Fabrication						X					X					
System Test											X					
Well Installation						X										
Piping Installation								X		X						
Electrical Installation							X	X								
System Installation												X				
Start up testing													X			
Daily Operations (1st Week)														XXXXX		
Bi Weekly O & M																X

C-VLR | zephyr

C-VLR 60 | C-VLR 100 | C-VLR 150 | C-VLR 251

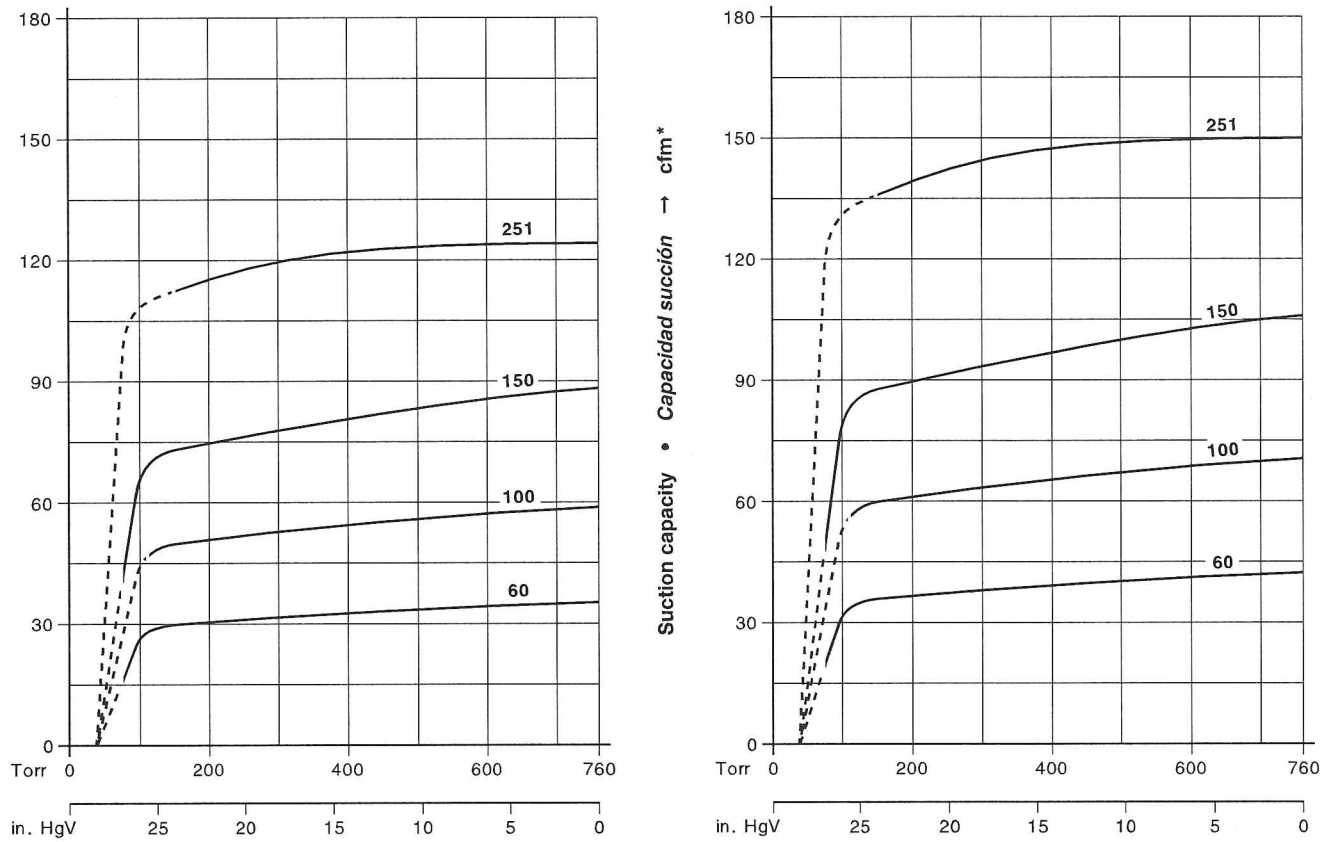
Elmo Rietschle
A Gardner Denver Product



High efficiency, dry and contact free compression claw vacuum pump
Capacities ranging from 35.3 to 150 cfm.
The ultimate vacuum for continuous operation is 24, 25.5 or 27 in. HgV.
Low maintenance. Integrated air cooling without additional cooling medium.

Bomba de vacío de garras altamente eficiente, de compactación en seco y sin contacto
Capacidades de 35.3 a 150 cfm.
El vacío absoluto para funcionamiento continuo es de 24, 25.5 o 27 in. HgV.
Poco mantenimiento, refrigeración por aire integrada sin medios adicionales.

Selection diagram • ***Diagrama de selección*** **50 Hz** **60 Hz**

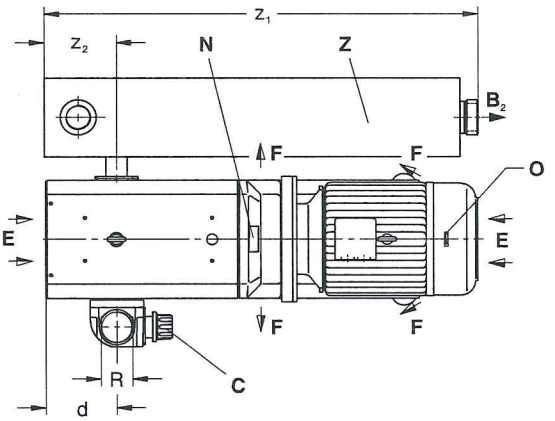


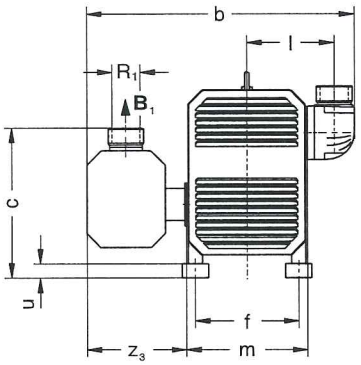
Suction pressure • ***Presión succión*** → **Torr / in. HgV**

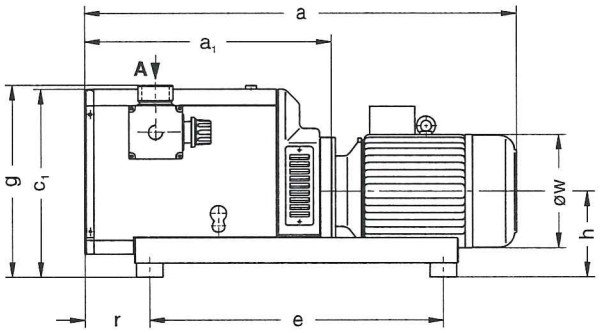
C-VLR			60	100	150	251
Suction capacity *Capacidad succión*	cfm	50 Hz	35.3	58.9	88.3	124.2
		60 Hz	42.4	70.6	106	150.1
Ultimate vacuum max. *Vacío final máx.*			38 Torr - 28.44 in. HgV			
Ultimate vacuum continuous operation *Vacío final permanente*			75 Torr - 27.0 in. HgV	113 Torr - 25.5 in. HgV	75 Torr - 27.0 in. HgV	150 Torr - 24.0 in. HgV
Rated voltage *Tensión asignada*	3~	50 Hz	230 / 400 V ±10%			
		60 Hz	208 - 230 / 460 V ±10%			
Motor rating *Potencia requerida*	kw	50 Hz	1.1	2.2	3.0	4.0
	hp	60 Hz	2.0	3.0	5.0	7.5
Full load amperage *Amperaje a carga plena*	A	50 Hz	4.7 / 2.7	8.7 / 5.0	10.5 / 6.0	17.5 / 10.0
		60 Hz	5.75 - 5.27 / 2.6	8 - 7.4 / 3.7	13 - 12 / 6	19 - 18 / 9
Speed *Velocidad*	rpm	50 Hz	2850			
		60 Hz	3450			
Average noise level *Nivel promedio de ruido*	dB(A) EN ISO 3744	50 Hz	78	78	79	76
		60 Hz	80	82	82	78
Weight *Peso*	lbs	50 Hz	112	232	276	309
		60 Hz	135	254	306	328
Oil capacity (gear) *Capacidad de aceite (engranaje)*	qt		0.4	0.55	0.6	0.6

Dimensions • *Dimensiones* [inches]

A	Vacuum connection • *Conexión de vacío*
B_1, B_2	Exhaust • *Escape* B_1 → C-VLR 100, 150 • B_2 → C-VLR 60, 251
C	Vacuum regulating valve • *Válvula reguladora de vacío*
E	Cooling air entry • *Entrada aire refrigerante*
F	Cooling air exit • *Salida aire refrigerante*
N	Data plate • *Placa de la unidad*
O	Rotation arrow • *Dirección de rotación*
Z	Exhaust silencer • Silenciador escape







C-VLR		60	100	150	251
a	50 Hz	24.61	26.02	32.52	34.88
	60 Hz	24.45	29.83	34.54	40.15
a_1	50 Hz	14.45	15.43	18.70	22.72
	60 Hz	14.45	17.29	20.62	24.63
b		16.97	21.26	20.98	25.00
c		11.22	9.80	11.77	11.57
c_1		11.61	14.17	14.76	14.76
d		9.61	3.62	2.28	2.56
e		9.65	17.32	15.04	15.04
f		6.30	8.66	6.30	6.30
g		16.22	14.53	15.31	17.09

C-VLR		60	100	150	251
h		6.10	5.91	6.50	6.50
l		6.33	7.17	7.05	8.39
m		6.46	10.24	10.16	10.16
r		4.21	3.03	4.57	8.58
u		0.79	0.59	1.18	1.18
øw	50 Hz	7.28	6.93	7.72	8.66
	60 Hz	7.05	6.62	8.50	10.62
z_1		12.01	25.98	25.98	43.07
z_2		2.36	3.94	3.94	6.30
z_3		4.72	7.28	7.28	10.24
R / R_1		1" NPT	1½" NPT	1½" NPT	2" NPT

Accessories • *Accesorios*

C-VLR			60	100	150	251
Non return valve *Válvula retención*	**ZRK**		25 (03)	40 (03)	40 (03)	50 (03)
Vacuum tight suction filter *Filtro de succión estanco al vacío*	**ZVF**	50 Hz	-	32 (54)	40 (53)	50 (53)
		60 Hz	-	40 (53)	40 (53)	50 (53)
Motor protection switch • *El guardamotor* Sound box • *Caja de sonido*	**ZMS** **ZBZ**		on request • *on pedido*			

cfm* Relates to pump inlet conditions • *se refiere a las condiciones de entrada de la bomba*

Curves, tables content (tolerance ±10%) refer to vacuum pump at normal operating temperature. • *Las curvas, las tablas (tolerancia ±10%) hacen referencia a una bomba de vacío a temperatura normal de funcionamiento.*

The motor dimensions as well as the full load amperage may vary because of different motor manufacturers. • *Las dimensiones de motor pueden variar para distintos fabricantes de motores.*

Technical information is subject to change without notice! • *La información técnica está sujeta a cambios sin previo aviso!*

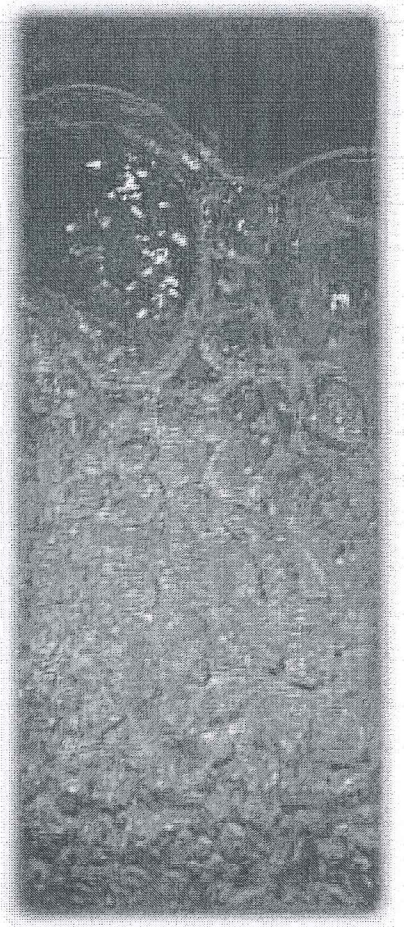
Gardner Denver

Elmo Rietschle is a brand of Gardner Denver's Industrial Products Division and part of Blower Operations.

Gardner Denver, Inc.
1800 Gardner Expressway
Quincy, IL 62305 / USA
Phone (217) 222 - 5400
Fax (217) 221 - 8780

info@vacuumpumps.com
www.gd-elmorietschle.com

Edition: 1.4.2012 · D 880-1-US



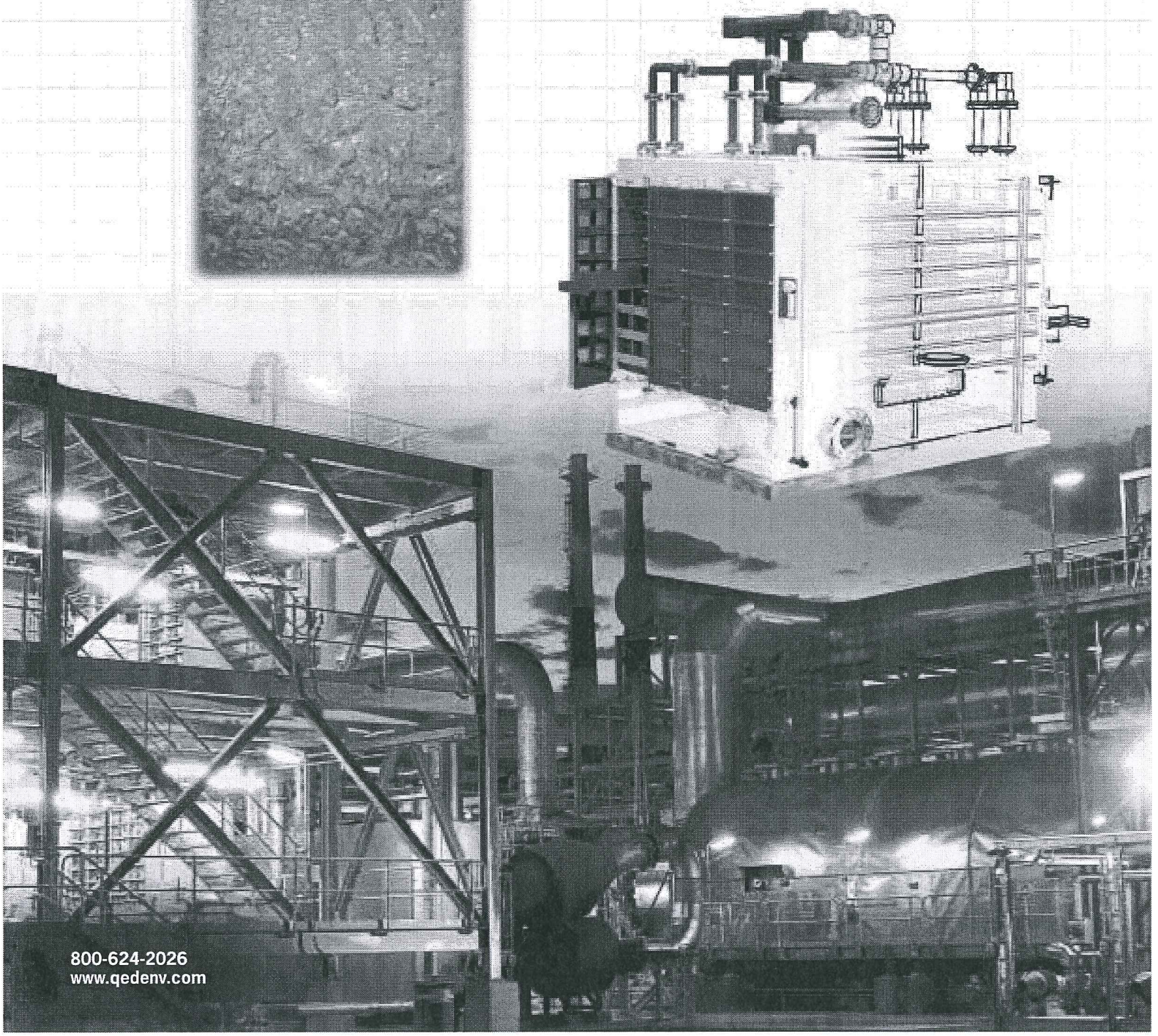
QED

Environmental Systems

A TestAmerica Company

THE LEADER IN ENVIRONMENTAL TESTING

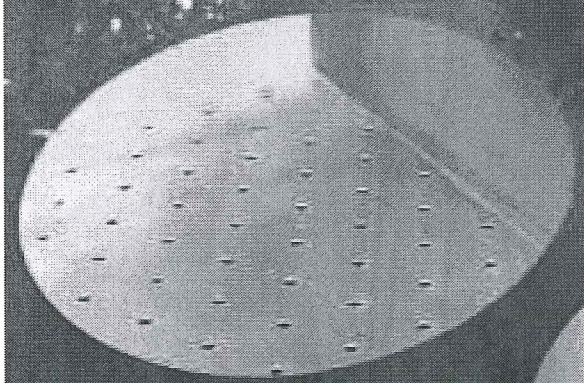
Sliding Tray, High-Efficiency Air Strippers for VOC Removal



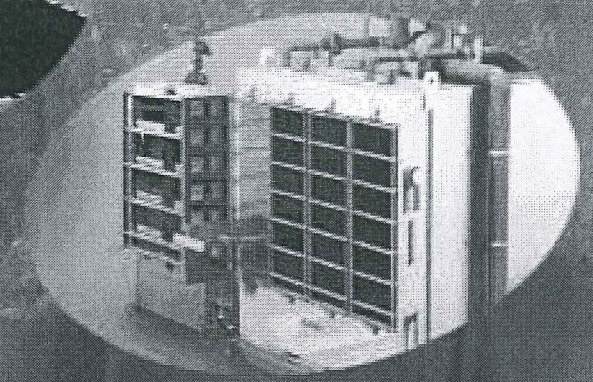
800-624-2026
www.qedenv.com

Flow Rates from 1 to 1,000 gpm and Options to Fit Every Treatment Project

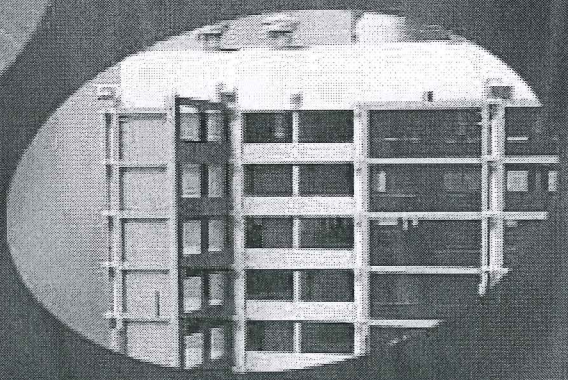
Conventional air strippers need more than twice the access and tray removal space than E-Z Tray® air strippers.



Air flows up through perforated trays creating a turbulent froth zone with a high air-to-liquid surface area for mass transfer of volatile organic compounds (VOCs)

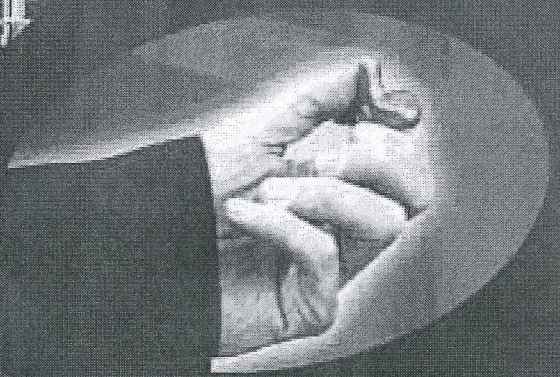


Flow rates available from 1 to 1,000 gpm.

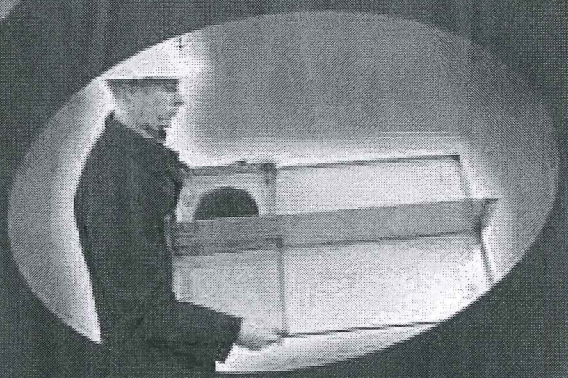


Hinged door option allows for easy access without door removal.

Front access slide-out trays allow unit maintenance by one person.

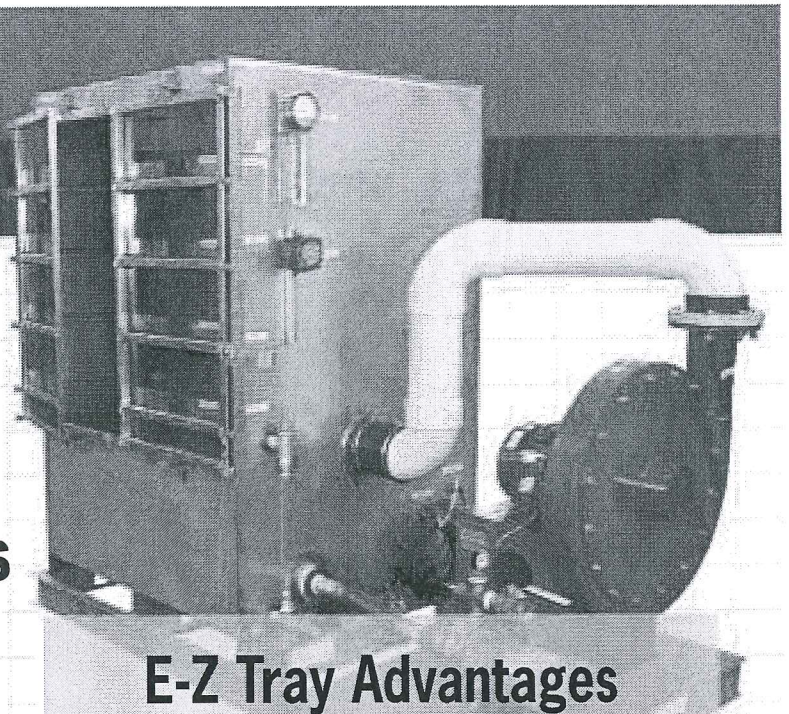


Front access hatches seal tight and are removed quickly with hand-knobs.



Split-tray option reduces maximum tray weight to only 28 lbs., even on the 1,000 gpm unit!

E-Z Tray®



Easier tray cleaning and superior technical support make E-Z Tray® air strippers a smart choice!

The E-Z Tray® Air Stripper (U.S. Patent Number 5,518,668) is a sliding tray, stainless steel air stripper used to remove volatile organic compounds (VOC) from contaminated groundwater and waste streams. The exclusive design of the E-Z Tray stripper results in very high removal efficiencies in an easier to maintain process unit.

Any air stripping process subject to fouling conditions has to contend with periodic cleaning in order to retain treatment efficiencies and capacity. Tower air strip pers can become maintenance headaches when the tower packing becomes clogged and cemented together with bio-fouling or precipitants. When the perforated trays in stacking tray air strippers become fouled they require major disassembly, cranes or hoists, and lots of room.

Unlike these traditional types of air strippers, QED's E-Z Tray air strippers use removable, lightweight, front slide-out trays. This unique feature provides many advantages, including one person cleaning and less building space.

E-Z Tray air strippers are available in configurations with 4 or 6 trays, with maximum flow rates from 1-25 gpm (4-100 Lpm) all the way up to 1,000 gpm (3,784 Lpm).

NEW – High Capacity Process Air Strippers
These air strippers are engineered to serve in larger, process-type projects involving multiple treatment stages, where they are an effective component of large-scale water or wastewater processes in manufacturing, refining, chemical processing and other industries. They can act as a pre-treatment stage for other process elements, such as large aerobic biotreatment units, removing VOCs at much lower airflow rates to reduce the costs of off-gas treatment.

All of this combined with the easier maintenance and smaller footprint of QED's sliding tray air strippers, has led E-Z Tray to become the preferred choice for major remediation and process stream projects in the U.S. and abroad.

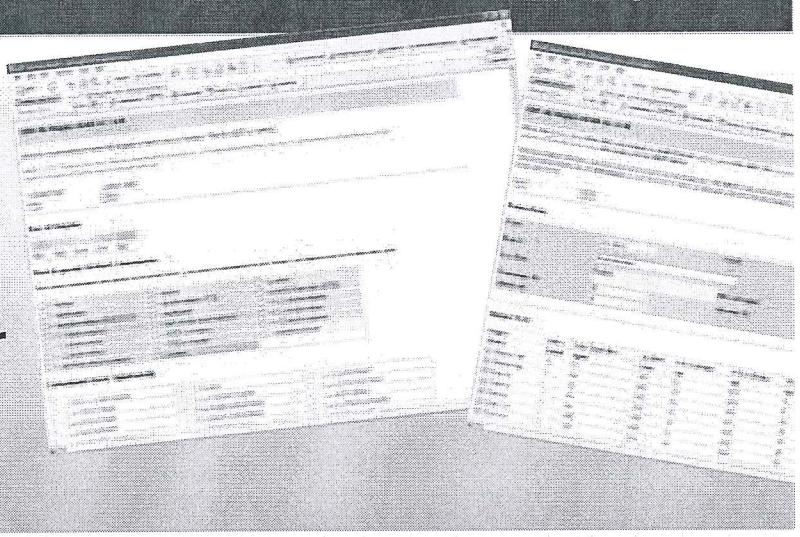
E-Z Tray Advantages

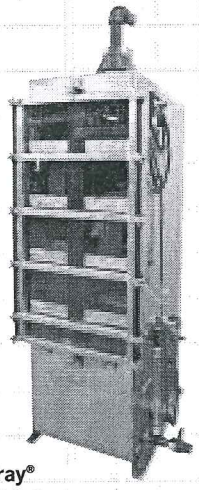
E-Z Tray	Tower Air Strippers	Stacking Tray Air Strippers
• Single person cleaning	• Condition of packing and liquid and air flow distribution are very difficult to observe	• Major disassembly steps and crew needed
• Easy process monitoring and inspection, even while in operation	• Small footprint but very tall structure required	• Difficult to impossible to observe air and liquid flow distribution during operation
• Reduced footprint for installation and maintenance	• More difficult to keep at design performance	• Lots of space needed for disassembly, to access all sides and to lift and store tray stages
• High removal efficiencies easier to maintain	• More complex process assistance required	• More difficult to keep at design performance
• Easily modeled online by customer to help process evaluation		• Online modeler not offered

The QED VOC Removal Advantage

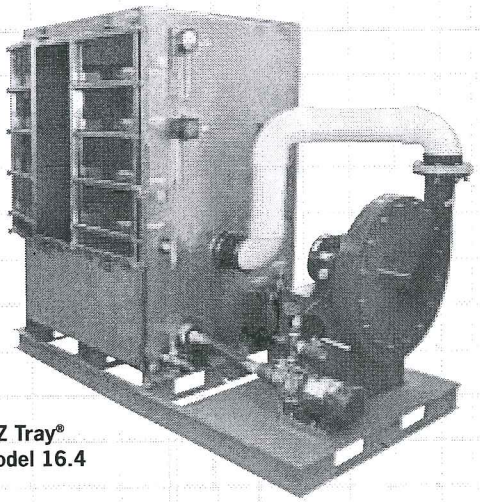
Proven equipment, expert help with its selection and installation, and support you can c

Exclusive Online Performance Modeler has been developed to assist you in selecting the most effective air stripping package for your groundwater cleanup project

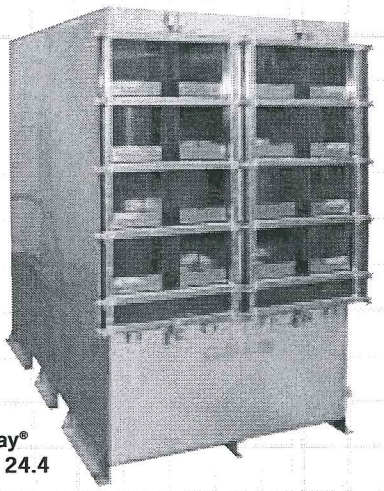




E-Z Tray®
Model 6.4



E-Z Tray®
Model 16.4



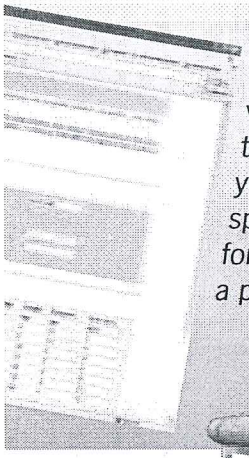
E-Z Tray®
Model 24.4

Air Stripper Specifications

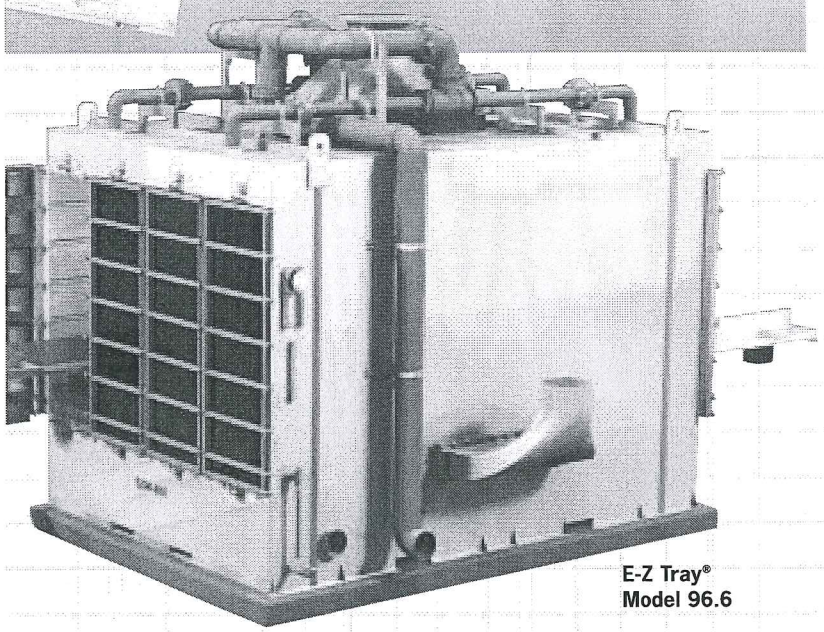
Model No.	Maximum Flow Range	Dry Weight	Operating Weight	Shell Dimension (LxWxH)	Trays Per Tier
4.4	1-50 gpm (4-189 Lpm)	630 lbs. (286 kg)	985 lbs. (447 kg)	29 x 27 x 82 in. (74 x 69 x 208 cm)	4 x 29 lbs. (4 x 13 kg)
4.6	1-50 gpm (4-189 Lpm)	780 lbs. (354 kg)	1,219 lbs. (553 kg)	29 x 27 x 102 in. (74 x 69 x 259 cm)	6 x 29 lbs. (6 x 13 kg)
6.4	1-65 gpm (4-246 Lpm)	790 lbs. (358 kg)	1,285 lbs. (583 kg)	37 x 27 x 82 in. (94 x 69 x 208 cm)	4 x 40 lbs. (4 x 18 kg)
6.6	1-65 gpm (4-246 Lpm)	978 lbs. (443 kg)	1,591 lbs. (722 kg)	37 x 27 x 102 in. (94 x 69 x 259 cm)	6 x 40 lbs. (6 x 18 kg)
8.4	1-75 gpm (4-284 Lpm)	955 lbs. (433 kg)	1,580 lbs. (717 kg)	49 x 27 x 82 in. (124 x 69 x 208 cm)	4 x 50 lbs. (4 x 23 kg)
8.6	1-75 gpm (4-284 Lpm)	1,182 lbs. (536 kg)	1,956 lbs. (887 kg)	49 x 27 x 102 in. (124 x 69 x 259 cm)	6 x 50 lbs. (6 x 23 kg)
12.4	1-120 gpm (4-454 Lpm)	1,165 lbs. (528 kg)	2,105 lbs. (955 kg)	73 x 27 x 82 in. (185 x 69 x 208 cm)	4 x 60 lbs. (4 x 447 kg)
12.6	1-120 gpm (4-454 Lpm)	1,442 lbs. (654 kg)	2,606 lbs. (1,182 kg)	73 x 27 x 102 in. (185 x 69 x 259 cm)	6 x 60 lbs. (6 x 447 kg)
16.4	1-150 gpm (4-566 Lpm)	1,625 lbs. (737 kg)	2,870 lbs. (1,302 kg)	49 x 52 x 84 in. (124 x 132 x 213 cm)	8 x 50 lbs. (8 x 23 kg)
16.6	1-150 gpm (4-566 Lpm)	2,011 lbs. (912 kg)	3,553 lbs. (1,612 kg)	49 x 52 x 104 in. (124 x 132 x 264 cm)	12 x 50 lbs. (12 x 23 kg)
24.4	1-250 gpm (4-946 Lpm)	2,100 lbs. (953 kg)	3,980 lbs. (1,805 kg)	73 x 52 x 84 in. (185 x 132 x 213 cm)	8 x 60 lbs. (8 x 27 kg)
24.6	1-250 gpm (4-946 Lpm)	2,599 lbs. (1,179 kg)	4,926 lbs. (2,234 kg)	73 x 52 x 104 in. (185 x 132 x 264 cm)	12 x 60 lbs. (12 x 27 kg)
48.4	1-500 gpm (1,893 Lpm)	5,000 lbs. (2,268 kg)	12,500 lbs. (5,670 kg)	98 x 71 x 84 in. (249 x 180 x 213 cm)	16 x 60 lbs. (16 x 27 kg)
48.6	1-500 gpm (1,893 Lpm)	5,500 lbs. (2,495 kg)	13,000 lbs. (5,897 kg)	98 x 71 x 104 in. (249 x 180 x 264 cm)	24 x 60 lbs. (24 x 27 kg)
96.4	1-1,000 gpm (3,785 Lpm)	11,000 lbs. (4,990 kg)	25,000 lbs. (11,340 kg)	142 x 98 x 84 in. (361 x 249 x 213 cm)	32 x 60 lbs. (32 x 27 kg)
96.6	1-1,000 gpm (3,785 Lpm)	11,500 lbs. (5,216 kg)	30,000 lbs. (13,608 kg)	142 x 98 x 104 in. (361 x 249 x 264 cm)	48 x 60 lbs. (48 x 27 kg)

Standard construction is 304 SS, other alloys upon request. *Allow additional space for accessory components. (blower, piping, etc.)

ount on when you need it



Try it for yourself today! Use our exclusive online stripper modeler at **www.qedenv.com/model/model.html** *to spec the exact size and configuration for your project. Then talk to a QED applications specialist toll-free at* **(800) 624-2026** *for fast, free system design assistance and a price quote.*

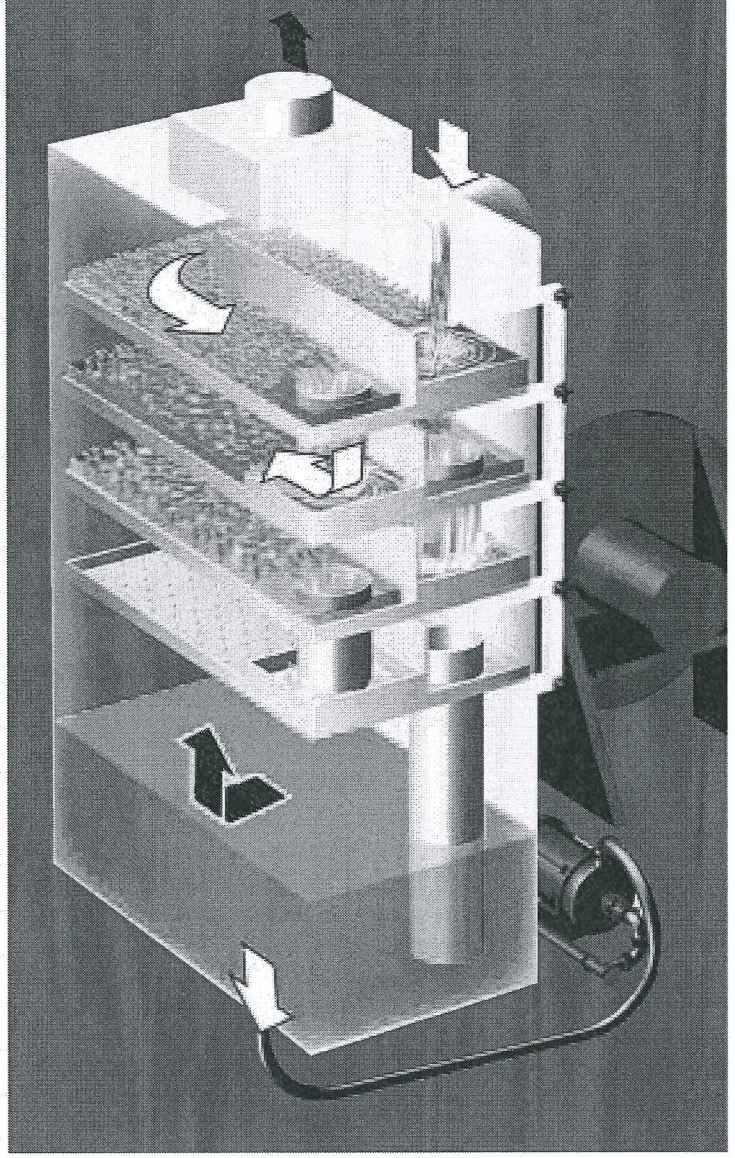


E-Z Tray®
Model 96.6

Active Area	Nominal Air Flow	Additional Space for Tray Removal*
2.8 ft.² (0.26 m²)	210 cfm (5.95 m³/min)	27 in. (69 cm)
2.8 ft.² (0.26 m²)	210 cfm (5.95 m³/min)	27 in. (69 cm)
3.8 ft.² (0.35 m²)	320 cfm (9.06 m³/min)	35 in. (89 cm)
3.8 ft.² (0.35 m²)	320 cfm (9.06 m³/min)	35 in. (89 cm)
5.6 ft.² (0.52 m²)	420 cfm (11.89 m³/min)	47 in. (119 cm)
5.6 ft.² (0.52 m²)	420 cfm (11.89 m³/min)	47 in. (119 cm)
8.8 ft.² (0.82 m²)	600 cfm (16.99 m³/min)	71 in. (180 cm)
8.8 ft.² (0.82 m²)	600 cfm (16.99 m³/min)	71 in. (180 cm)
11.1 ft.² (1.03 m²)	850 cfm (24.07 m³/min)	47 in. (119 cm)
11.1 ft.² (1.03 m²)	850 cfm (24.07 m³/min)	47 in. (119 cm)
17.5 ft.² (1.63 m²)	1,300 cfm (36.81 m³/min)	72 in. (183 cm)
17.5 ft.² (1.63 m²)	1,300 cfm (36.81 m³/min)	72 in. (183 cm)
27 ft.² (2.51 m²)	2,600 cfm (73.62 m³/min)	72 in. (183 cm)
27 ft.² (2.51 m²)	2,600 cfm (73.62 m³/min)	72 in. (183 cm)
54 ft.² (5.02 m²)	5,200 cfm (147.25 m³/min)	2 x 72 in. (2 x 183 cm)*
54 ft.² (5.02 m²)	5,200 cfm (147.25 m³/min)	2 x 72 in. (2 x 183 cm)*

How it Works

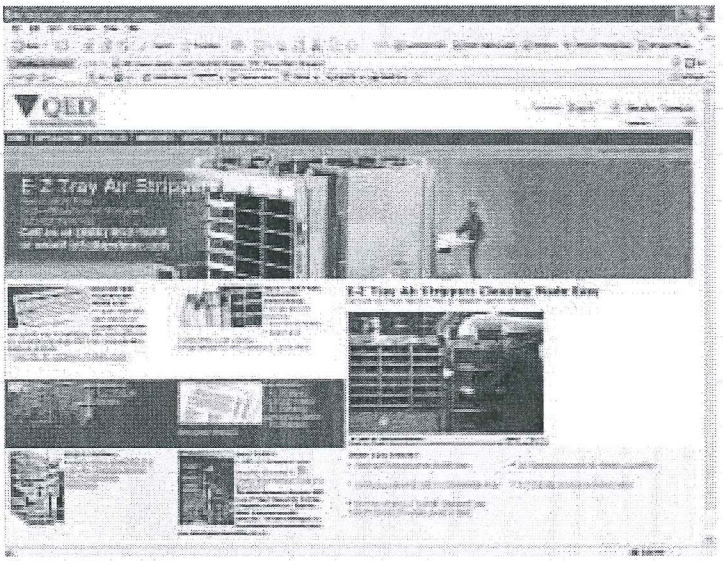
As contaminated groundwater enters through the top of the air stripper, millions of air bubbles are forced by blower pressure up through the perforated trays. This creates a turbulent froth zone with an extremely high air-to-liquid surface area for mass transfer of volatile organic compounds (VOCs) from liquid to air. Using the froth instead of a conventional tower packing delivers high VOC removal efficiencies even under fouling conditions, and is easier to inspect and maintain.



QED Quality Control, Manufacturing Standards and Customer Service

Experienced site owners, including major oil companies, are increasingly choosing E-Z Tray® air strippers from QED due to their unique features and solid technical support, including:

- **Lower long-term O&M costs due to easier tray maintenance than tower-type or stacking tray air strippers.**
- **Lightweight, slide-out trays don't require hoists, regardless of the size of the air stripper.**
- **E-Z Tray air strippers need less building space, which can lower building costs.**
- **QED's staff and resources are #1 in air stripper technical and service support, including for unusual applications.**
- **Online Performance Modeler tool available 24/7 to help you select the proper air stripper.**
- **QED quote & delivery times are quick and dependable.**



Visit qedenv.com/air-strippers to view and use the exclusive Online Performance Modeler, which allows you to model your process conditions and select the most efficient air stripping package for your VOC removal project. You can also view case studies where E-Z Tray air strippers were the top choice in successful projects.

The World Leader in Air-Powered Remediation

For Remediation, Landfills and Groundwater Sampling

QED
Environmental Systems
A TestAmerica Company
THE LEADER IN ENVIRONMENTAL TESTING

6095 Jackson Road
Ann Arbor, MI 48106-3726
USA

800-624-2026
T: 734-995-2547
F: 734-995-1170
info@qedenv.com
www.qedenv.com

1565 Alvarado Street
San Leandro, CA 94577
USA

800-624-2026
T: 510-346-0400
F: 510-346-0414
info@qedenv.com
www.qedenv.com

CODE 2336 4/09

QED Air Stripper Model ver. 2.0 — 4/25/2013

Site Data

Name: Gary
e-mail: gsherida@synergyenvinc.com
Project: Calvert
Units: English
Altitude: 50 ft
Air Temp: 55 F
Flow: 5 gpm
Water Temp: 55 F
Stripper: EZ-Stacker 2.xp - Click for details
Stripper Air Flow: 140 cfm
Stripper Max Flow: 25 gpm

Water Results

Contaminant	Influent (ppb)	Target (ppb)	4-Tray Results (ppb)	4-Tray % Removal	6-Tray Results (ppb)	6-Tray % Removal
benzene	872	0	< 1	100.000	< 1	100.000
toluene	2290	0	< 1	100.000	< 1	100.000
ethylbenzene	224	0	< 1	100.000	< 1	100.000
methyl-t-Butyl ether (MTBE)	146	0	3.5	97.603	< 1	100.000
naphthalene	75	0	4.2	94.400	1.3	98.267
hexane	Influent value is <= 0 -- not modeled.					
tert-Butyl Alcohol (TBA)	250	0	235.7	5.720	235.7	5.720
tetrachloroethylene (PERC,PCE)	3	0	< 1	100.000	< 1	100.000
trichloroethylene (TCE)	393	0	< 1	100.000	< 1	100.000

Air Results

Contaminant	4-Tray (ppmV)	4-Tray (lb/hr)	6-Tray (ppmV)	6-Tray (lb/hr)
benzene	1.2502	0.00218	1.2504	0.00218
toluene	2.7834	0.00573	2.7839	0.00573
ethylbenzene	0.2363	0.00056	0.2363	0.00056
methyl-t-Butyl ether (MTBE)	0.1810	0.00036	0.1847	0.00036
naphthalene	0.0619	0.00018	0.0644	0.00018
hexane	Influent value is <= 0 -- not modeled.			
tert-Butyl Alcohol (TBA)	0.0216	0.00004	0.0216	0.00004
tetrachloroethylene (PERC,PCE)	0.0020	0.00001	0.0020	0.00001
trichloroethylene (TCE)	0.3350	0.00098	0.3350	0.00098

Notes

PH-> 1-800-624-2026 or 1-734-995-2547, FX-> 1-734-995-1170. E-mail->info@qedenv.com. WEB->www.qedenv.com.

The QED modeler estimates unit performance for the listed contaminants. ***Results assume -***

1. Contaminants are in the dissolved-phase, within a water matrix

2. *Stripper Influent air is contaminant-free*
3. *Influent liquid does not have surfactants, oil, grease, other immiscible phase(s) or other Henry's constant altering additions present, such as dissolved phase polar organic contaminants*
4. *The air stripper is operated within the given parameters listed above and as instructed in the E-Z Tray O&M manual*

Stripper performance shall meet or exceed either the required effluent concentration(s) or effluent estimates, whichever is greater, for the conditions supplied and assumes the influent concentrations of each contaminant are less than 25% solubility in water. QED makes no claim of the model's accuracy beyond the 25% solubility in water limit.

Contact Us

Fill out your contact and project information and click Send to have a QED Treatment application specialist contact you.

Name - Gary

Company - Company

Phone - Phone **Fax -** Fax

e-mail - gsherida@synergyenvinc.com **Project -** Calvert

Application Notes

Send Reset

Save Data

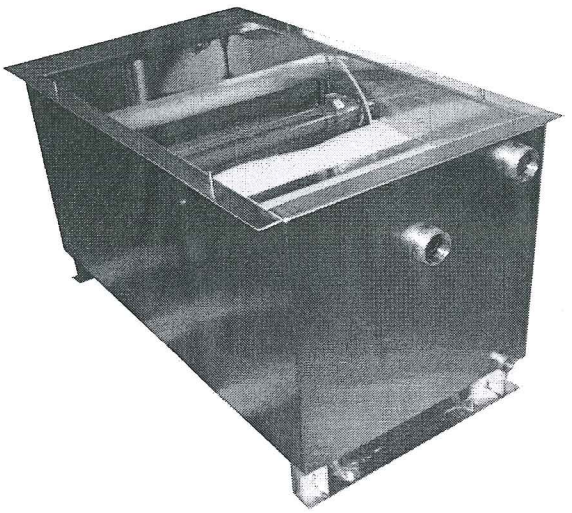
Use the following URL to reconstruct your data form for future remodeling with changes. This URL can be saved in any text file for record keeping and later retrieval. This run's URL:

```
http://64.9.214.199/cgi-bin/remodel.pl?
u=e&tw=55&ta=55&f=5&a=50&s=2.xp&n=Gary&e=gsherida@synergyenvinc.com&p
=Calve&c=63,872;186,2290;120,224;149,146;154,75;,0;181,250;182,3;189,
393;
```

HYDRO QUIP, INC.

Water Treatment Equipment

Above Ground Rectangular Oil Water Separator



Features

- Low maintenance costs
- Easy cleaning through removable vapor-tight covers
- No moving parts
- No power consumption
- No consumable wearing elements
- No chemicals, absorbent or filter cartridges to remove, replace or dispose
- Compact size
- Solids storage capability
- Optional integral oil storage

Operation

Fabrication

The oil water separator is a special purpose prefabricated parallel-corrugated plate, rectangular, gravity displacement, type oil water separator. The separator shall be comprised of a tank containing an inlet compartment, separation chamber, sludge chamber, and clean water outlet chamber.

Tank

108 Pond Street • Seekonk, MA 02771 • Phone 508-399-5771 • Fax 508-399-5352

The tank shall be a single wall construction conforming to ASTM A240, type 304 stainless steel. Welding will be in accordance with AWS D1.1 to provide a watertight tank that will not warp or deform under load. Pipe connections to the exterior shall be as follows:

Pipe Connections

All connections 3" and smaller are FNPT couplings. All connections 4" and larger are raised face flanges with ANSI 150 pound standard bolt circle. Use flanged piping connections that conform to ANSI B16.5.

Separator Corrosion Protection (for carbon steel only)

After shop hydrostatic test has been successfully completed, a coating system will be applied to the interior and exterior surfaces of the separator. Interior and exterior shall be sandblasted to SSPC-SP10 & SSPC-SP6; Interior lined with Tnemec Series 61 liner to 9 mils MDFT; Exterior coated with polyamide epoxy to 6 mils MDFT.

Lifting Lugs

The tank shall be provided with properly sized lifting lugs for handling and installation.

Covers

The tank will be provided with vapor tight covers for vapor control. Gas vents and suitable access openings to each compartment will be provided. The covers shall be constructed of marine grade aluminum and will be fastened in place. A gasket shall be provided for vapor tightness. 3/8-Bolts and threaded knobs will be provided for cover attachment.

Inlet Compartment

The inlet chamber shall be comprised of a non-clog diffuser to distribute the flow across the width of the separation chamber. The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. The media will sit elevated on top of a sludge baffle. The

sludge baffle will be provided to retain settleable solids and sediment from entering the separation chamber.

Separation Chamber

The oil separation chamber shall contain the appropriate coalescing media specific media specific to your application. The media when installed in crossflow OWS shall meet US EPA Method 1664 Rev. A and also European Standard 858-1 for oil water separators.

Baffles

An oil retention & underflow weir, and overflow weir. Position underflow weir to prevent re-suspension of settled solids.

Sludge Baffle

The sludge chamber shall be located prior to the coalescing compartment for the settling of any solids. It shall also prevent any solids from entering the clean water chamber.

Oil Skimmer

The oil separation chamber will be provided with a rotating pipe skimmer for gravity decanting of the separated oil to an external product storage tank or an optional integral product storage tank. Other various types of skimmers can be provided as an additional option.

Clean Water Chamber

The tank will be provided with a clean water chamber, which allows the water to leave the separator by gravity flow through the clean water outlet port.

Vents

2" vents will be provided with vent piping to atmosphere.

Vapor Monitoring Point Locations

▲ Proposed Vapor Monitoring Points | Leak Detection Well | Potable Well

Lost/Abandoned Monitoring Well | Monitoring Well | Site Boundary

REPSG
React Environmental
Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3.5 7 14 21 28 Feet

PROJECT NAME: CALVERT CITGO

PROJECT ADDRESS: 2815 NORTH EAST ROAD, NORTH EAST, MD

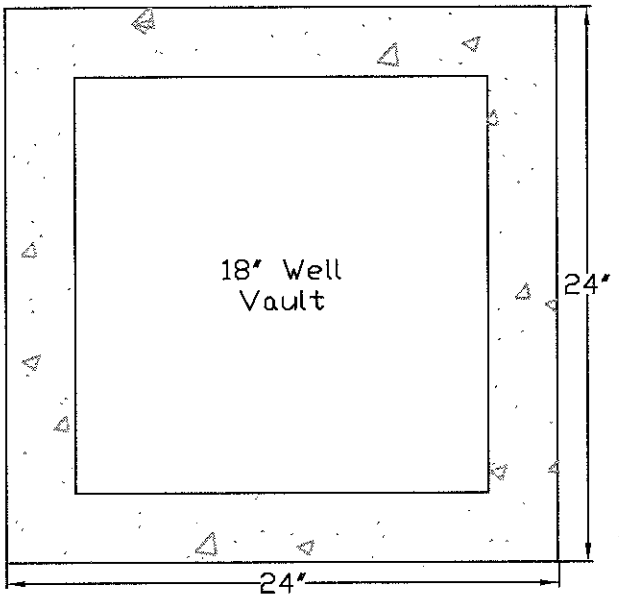
PROJECT NUMBER: 005977

DATE: APRIL 2013

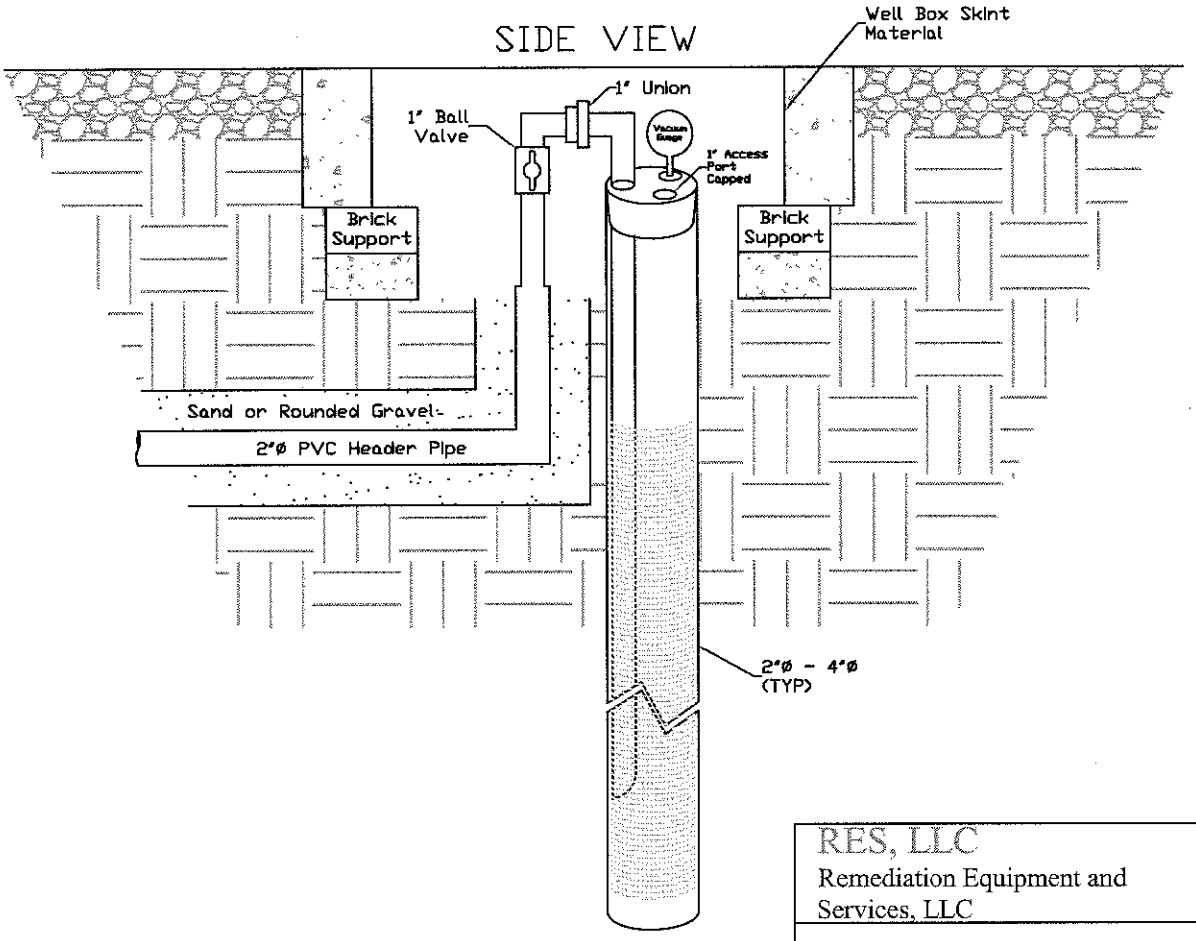
N

S

TOP VIEW



SIDE VIEW



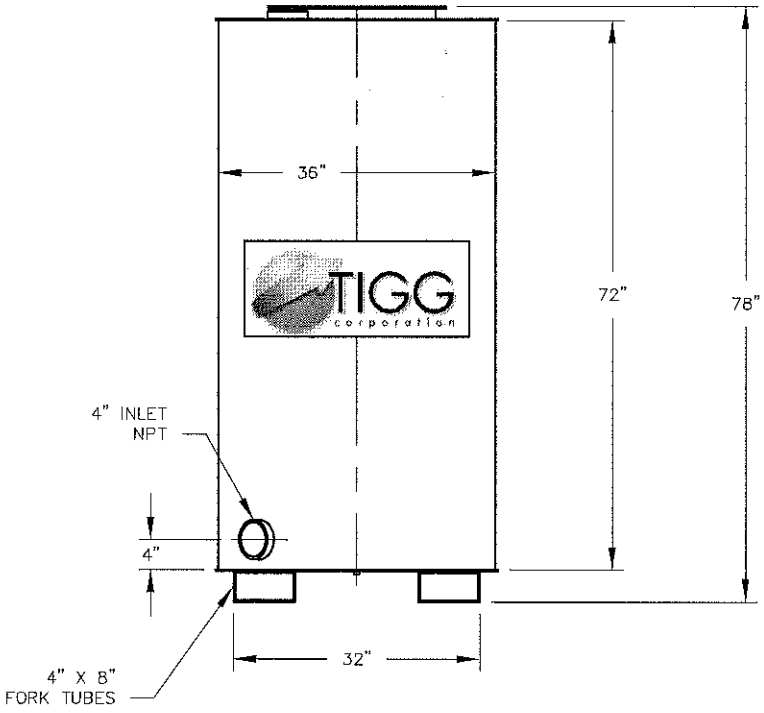
RES, LLC
Remediation Equipment and
Services, LLC

PO Box 176
Spring City, PA 19475
P: (610) 792-3434
F: (484) 369-2000

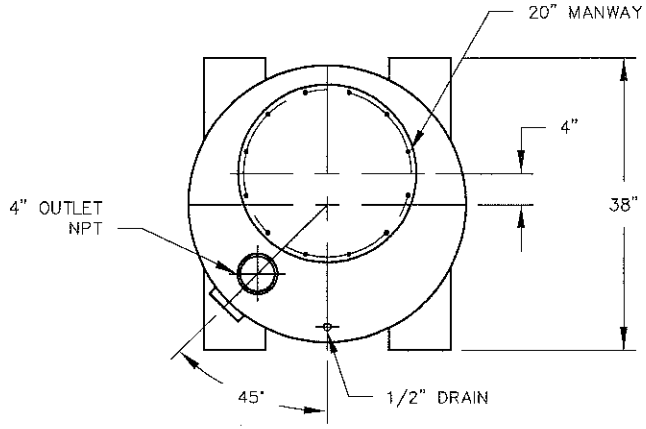
TYPICAL DUAL PHASE
EXTRACTION WELL INSTALLATION
DETAIL

Drawn By: BTA	Checked By: RJM	Page# 1 of 1	
Scale: N.T.S.	Dwg No:	Sheet: WELL	Date: 04-08-11
Project No:			
Rev. Desc:			
File Path:			

8 4 0 8 16
GRAGHIC SCALE



ELEVATION



PLAN

NOTE: EMPTY VESSEL WEIGHT – 475 LBS
MAX. MEDIA FILL – 35 FT^3
MAX. PRESSURE – 1 PSI

NO.	REVISION	BY	DATE
2	REVISE PRESSURE RATING TO 1 PSI	JB	4/13/07
1	REVISE TO TIGG FABRICATED HEADS	JB	3/15/07

PROJECT: EVP–1000

PROJ. NO. SALES

P.O. NO.

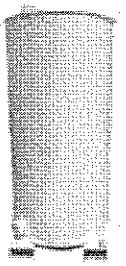
DRAWN BY	JB
DESIGN BY	BB
CHKD. BY	BB
DATE	11/10/05
SCALE	NTS

TIGG corporation

PLAN & ELEVATION

DWG. NO. EVP–1000–1001 REV. 2

ECONOSORB TM Activated Carbon Adsorber
Vapor Phase Applications



The Econosorb VP Series Vapor Phase Adsorbers are fabricated from carbon steel and provided with a high solids epoxy lining for long life. The VP units are designed to work in the up flow operating mode. The VP 1000 and 2000 have a 4" FNPT bottom and top fittings and PVC internal for air distribution. The units have a screened drain and 20 inch bolted top manway for easy access. The forklift access slots and overall height make this unit truly transportable.

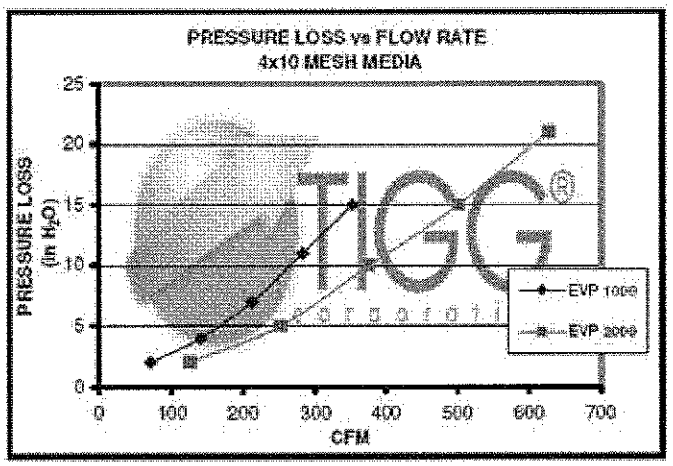
These economical units can be filled with any of TIGG's media including activated carbon and process media, odor control media, acid gas removal media and perform well in low flow high media usage applications. Specifications and properties are subject to change without notice.

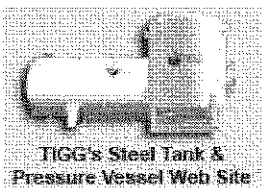
MODEL PDF FILES*	NOMINAL FLOW (CFM)	MAX PRESS (PSIG)	MAX TEMP (deg F)	COUPLING INLET / OUTLET (IN)	DIA HEIGHT (IN)	STND ADSORBENT FILL (LBS)	SHIPPING WEIGHT - STD FILL (LBS)
EVP-1000	350	1	130	4 / 4	36 / 78	1000	1550
EVP-2000	600	1	130	4 / 4	48 / 78	2000	2600

* INDICATES PDF FILE FOR DOWNLOAD

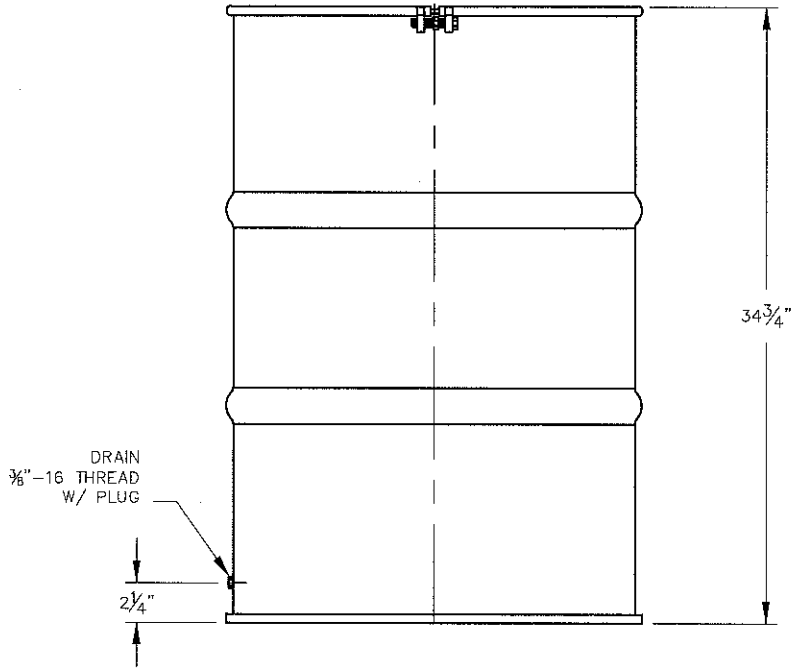
NOTES:

- **Dry virgin activated or reactivated carbon provided as standard adsorbent.**
- **Adsorbent fill is based on a bed density of 27 lb/ft3.**
- **Adsorbent fill can differ based on variable bed density and alternate adsorbents.**
- **Pressure drops are based on a dense packed bed of activated carbon.**

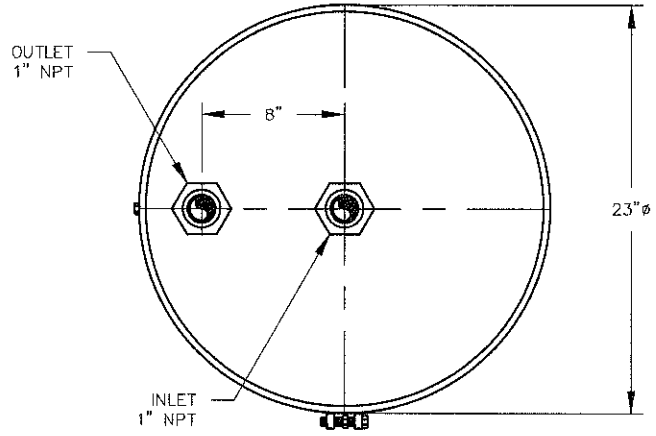



TIGG's Steel Tank & Pressure Vessel Web Site

- NIXTOX STEEL DRUM



ELEVATION



PLAN

VESSEL STANDARDS

VESSEL MATERIALS : CARBON STEEL	VOLUME OF VESSEL : 55 GAL.
LINING : DOUBLE EPOXY / PHENOLIC	MAXIMUM MEDIA FILL : 7.3 FT^3
EXTERIOR PAINT : ACRYLIC ALKYD ENAMEL	SHIP WT. (EMPTY) : 65 LBS
INTERNALS : SCH 40 PVC	MAXIMUM OPERATING PRESSURE : 10 PSIG
ADSORBENT OUTLET ASSEMBLY : REMOVABLE LID	MAXIMUM OPERATING TEMPERATURE. : 130°
LIQUID DRAIN ASSEMBLY : ⅜" – 16	

NO.	REVISION	BY	DATE
3	UPDATE DRUM HEIGHT	JB	12/5/12
2	DRAIN ELEVATION	JB	5/5/03
1	ADD DRAIN	JB	3/4/03

PROJECT
C–15–OH
DRUM

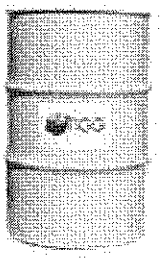
PROJ. NO.	SALES
P.O. NO.	
DRAWN BY	ZS
DESIGN BY	BL
CHKD. BY	BL
DATE	10/12/99
SCALE	NTS

TIGG corporation

PLAN & ELEVATION

DWG. NO. C–15–OH–1001 REV. 3

CANSORB® Steel Drum Adsorber
Liquid Phase - Activated Carbon Adsorber



The CANSORB® Steel Drum Activated Carbon Adsorber is specifically designed for liquid phase adsorption to remove trace contaminates in environmental remediation applications.

The CANSORB steel drum liquid phase carbon adsorption system is a series of 7 disposable and refillable activated carbon adsorbers constructed of carbon steel and offer a double epoxy / phenolic lining.

The liquid collection system of the adsorber is designed to promote even flow distribution and thus, efficient liquid phase adsorbent utilization. Internals are PVC except for C15-TX which has metal internals. These steel drum activated carbon adsorbers have been proven by more than 20 years of field experience and are particularly useful for collecting hazardous organic and radioactive wastes.

*Specifications and properties are subject to change without notice.

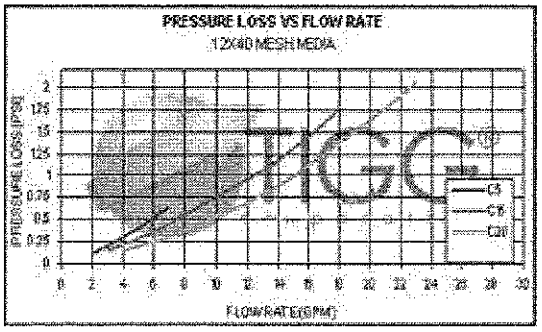
Liquid Phase Carbon Adsorbers - Steel Drums Overview

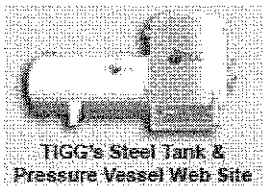
MODEL PDF FILES*	MAX FLOW (GPM)	MAX PRESS (PSIG)	MAX TEMP (deg F)	FNPT INLET / OUTLET (IN)	MAXIMUM ADSORBENT FILL (LBS)	SHIPPING WEIGHT STANDARD FILL (LBS)
C-5	5	10	130	3 / 4	110	140
C-5 OH	5	6	130	3 / 4	110	140
C-15-Special	15	15	130	3 / 4	200	235
C-15-TX	15	15	130	3 / 4	200	235
C-15 OH	15	10	130	1	200	240
C-20 OH	20	6	130	1	300	335

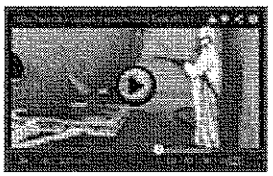
* INDICATES PDF FILE FOR DOWNLOAD

NOTES:

- "OH" designation on Model number indicates open head (refillable) adsorber.
- Desired contact time may allow higher or lower flow rates.
- Dry virgin activated or reactivated carbon provided as standard adsorbent.
- Maximum adsorbent fill is based on a bed density of 27 lb/ft3.
- Maximum adsorbent fill can differ based on variable bed density and alternate adsorbents.
- Pressure drops are based on a dense packed bed of activated carbon.






Watch TIGG Tank

Manufacturing Video

Ancillary Equipment

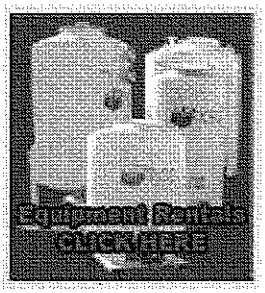
- Bag Filtration Units
- Piping Modules & Hoses
- Liquid-Phase Water Pumps
- Oil Water Separators
- Adsorber Skid System

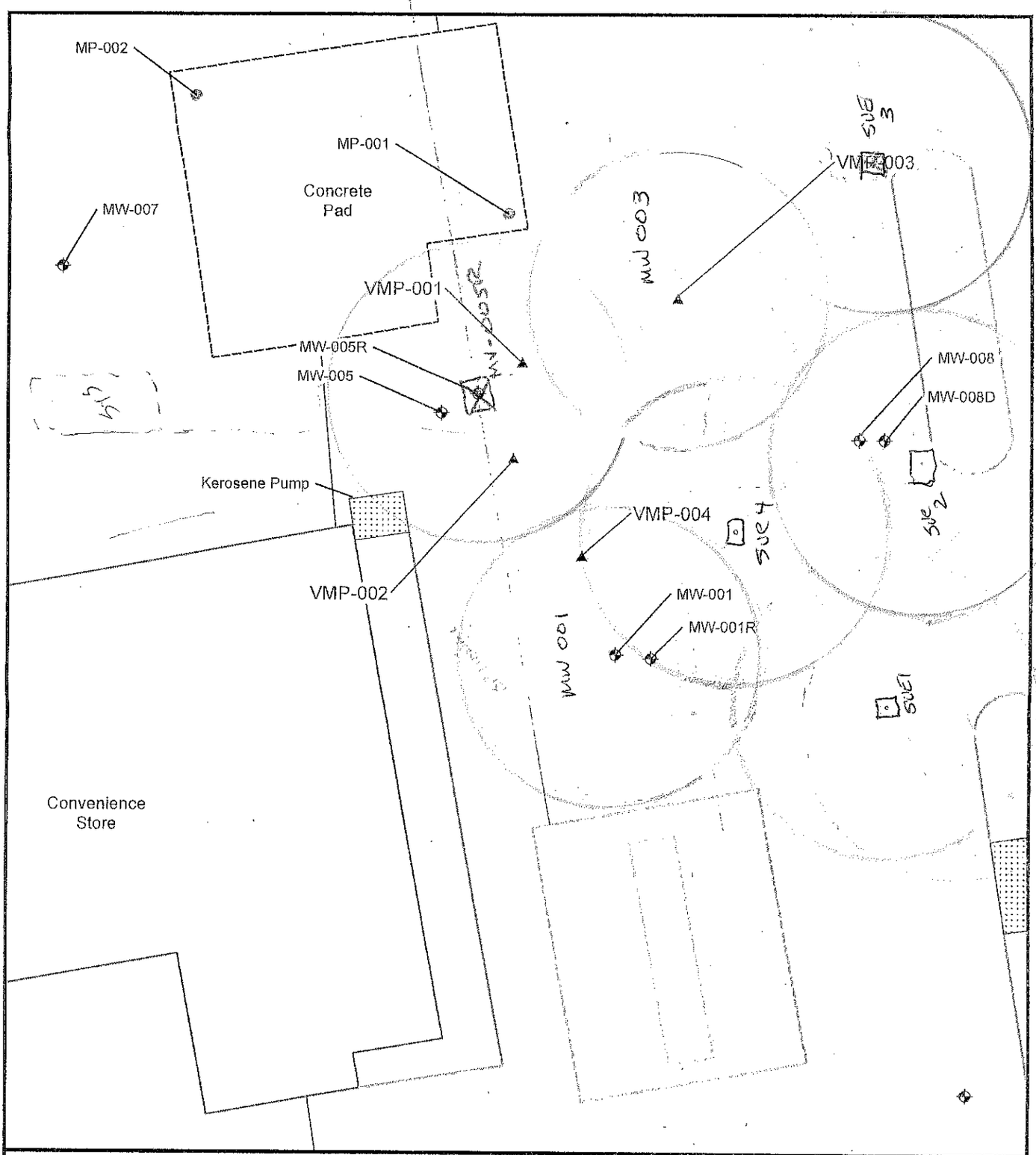
Activated Carbon

Filter Media

Questions or comments?

Request a quote.





Vapor Monitoring Point Locations

▲ Proposed Vapor Monitoring Points Leak Detection Well Potable Well

Lost/Abandoned Monitoring Well Monitoring Well Site Boundary

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3.5 7 14 21 28 Feet

PROJECT NAME: CALVERT CITGO

PROJECT ADDRESS: 2815 NORTH EAST ROAD, NORTH EAST, MD

PROJECT NUMBER: 005977

DATE: APRIL 2013

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