REPSG
React Environmental
Professional Services Group, Inc.

November 24, 2015

Jeannette DeBartolomeo
Environmental Compliance Specialist
MDE-OCP
1800 Washington Blvd.
Suite 620
Baltimore, MD 21230

RE: Groundwater and Drinking Water Results
Calvert Citgo (Former Alger County Store)
2815 North East Road, North East, MD
2802 Northeast Road (Ginski Residence)
2794 Northeast Road (O'Brien's Residence)
North East, Maryland 21901
Facility No. 5678
REPSG Project Reference No. 005977.130.01

Dear Ms. DeBartolomeo,

Attached please find the groundwater results and drinking water results for the Calvert Citgo Site located at 2815 Northeast Road (case NO.: 1992-2616-CE) as well as the drinking water results for the O'Brien and Ginski Residences, located at 2802 and 2794 Northeast Road in Northeast Maryland related to case NO.: 1992-2616-CE. These results are for the July 2015 groundwater and drinking water events. As requested, tabulated groundwater level data collected for the most recent four quarters of sampling, is also included in this packet.

The results of the drinking water analysis are compared against the drinking water standards set by the U.S. Environmental Protection Agency (USEPA), which sets legal limits that certain compounds in drinking water should meet in order to be protective of human health. Not all compounds analyzed for in drinking water samples have standards set by the USEPA. Previously, one compound (MTBE) for which no standard is set by the EPA, was compared against the EPA's recommended control level (20-40 parts per billion) to prevent adverse taste and odor. However, moving forward, this compound will only be compared against the applicable USEPA standards.

If you have any questions or concerns, please do not hesitate to contact our office at 215-729-3220.

Sincerely,

Suzanne Shourds
Project Manager
React Environmental Professional Services Group, Inc
enclosures

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

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

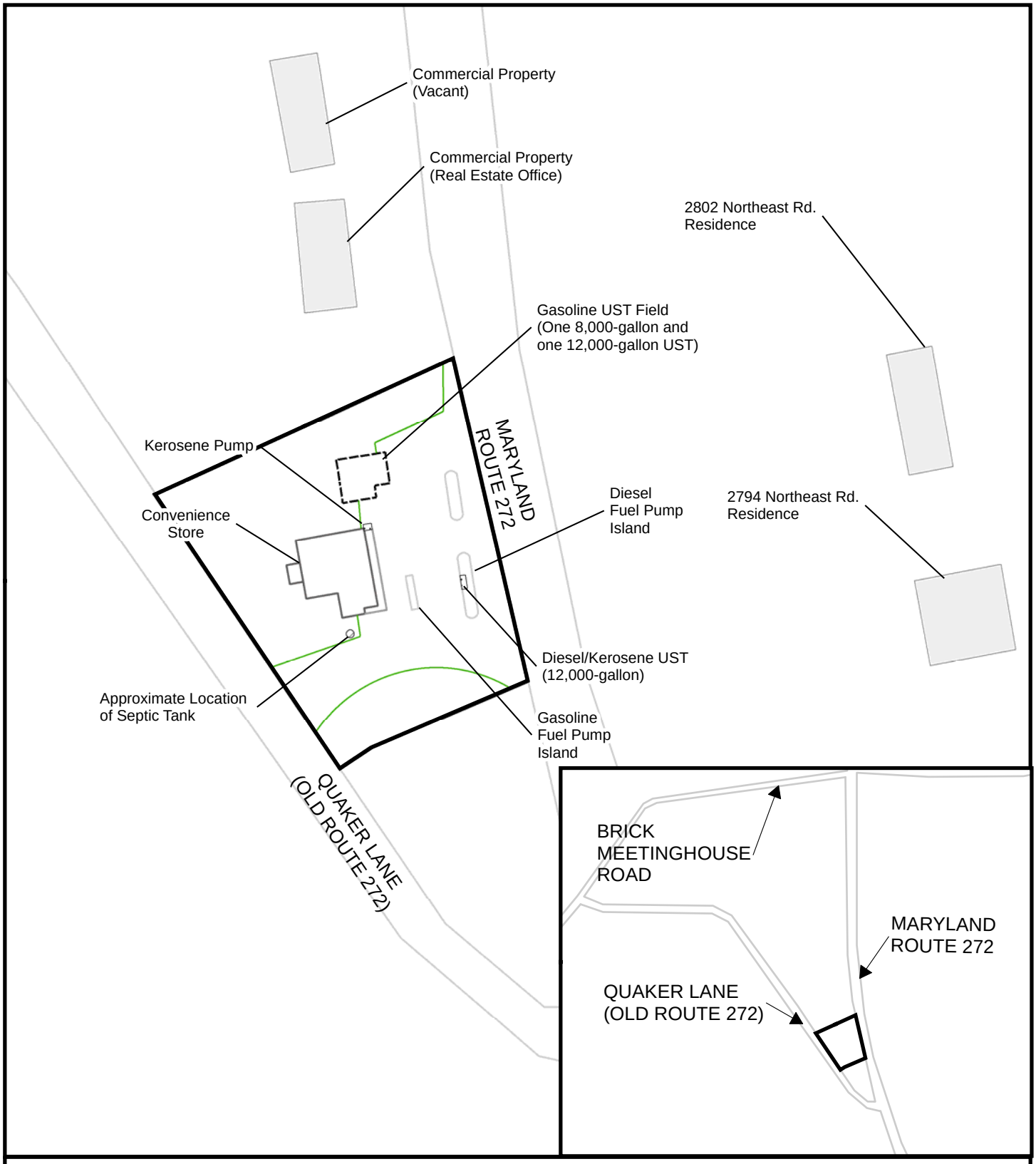

Figure 2: Site Diagram

Site Boundary

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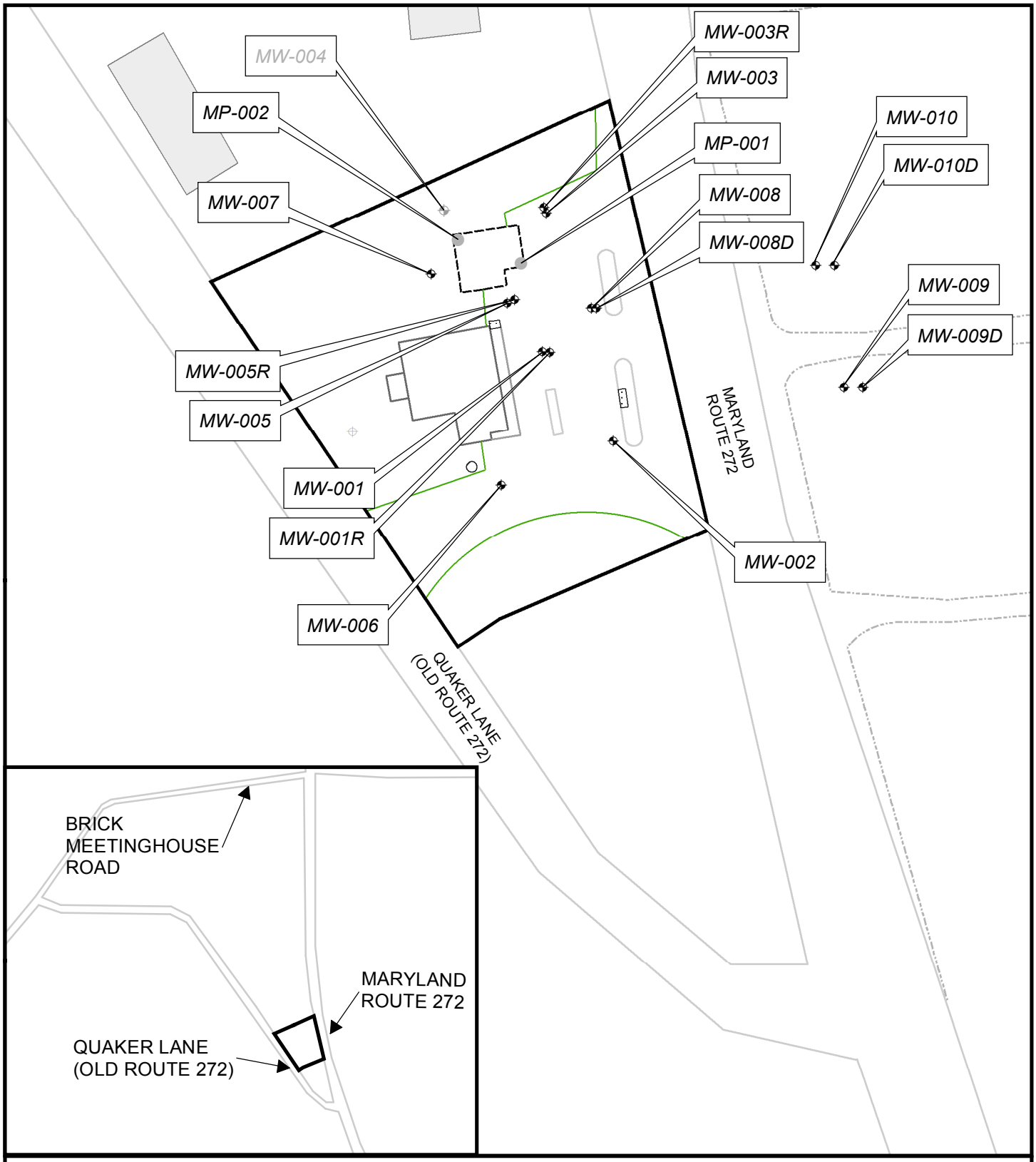
MAP SCALE: 1 inch = 100 feet

0 20 40 80 120 160 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***DECEMBER 2010***

N
S



Monitoring Well Locations

- Lost/Abandoned Monitoring Well
- Leak Detection Wells
- Monitoring Well
- Potable Well
- Diesel Pump
- Kerosene Pump
- Off-Site Bulding
- Septic Tank
- Site Boundary

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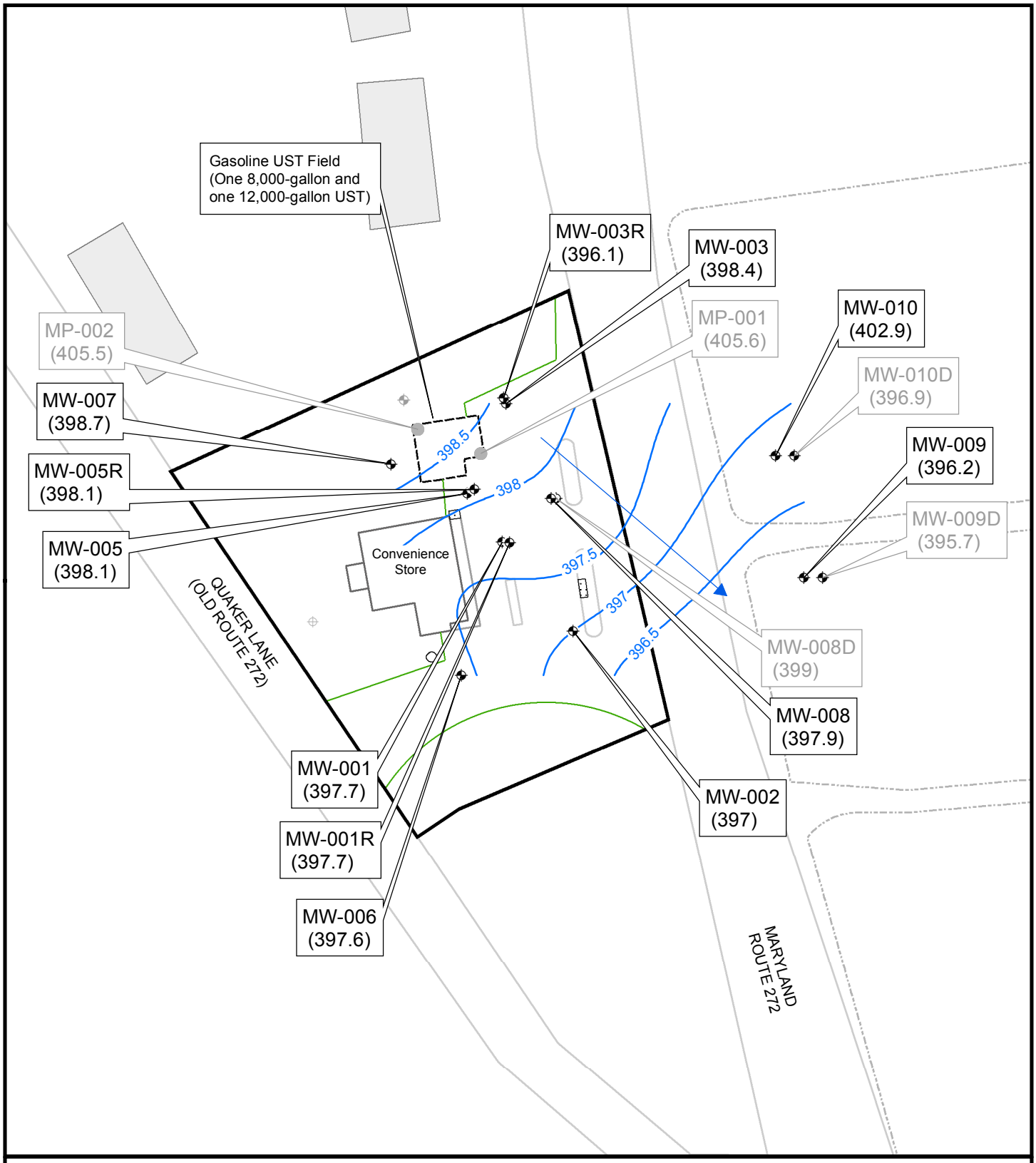
MAP SCALE: 1 inch = 75 feet
0 15 30 60 90 120 Feet

PROJECT NAME: *CALVERT CITGO*
PROJECT ADDRESS: *2815 NORTH EAST ROAD, NORTH EAST, MD*
PROJECT NUMBER: *005977*
DATE: *MAY 2014*

N
S



GROUNDWATER CONTOUR MAP (October 20th - 22nd, 2015)

Groundwater Directional Flow

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

Lost/Abandoned Monitoring Well
Leak Detection Wells
Potable Well
Monitoring Well
Diesel Pump
Kerosene Pump
Off-Site Bulding
Septic Tank
Site Boundary

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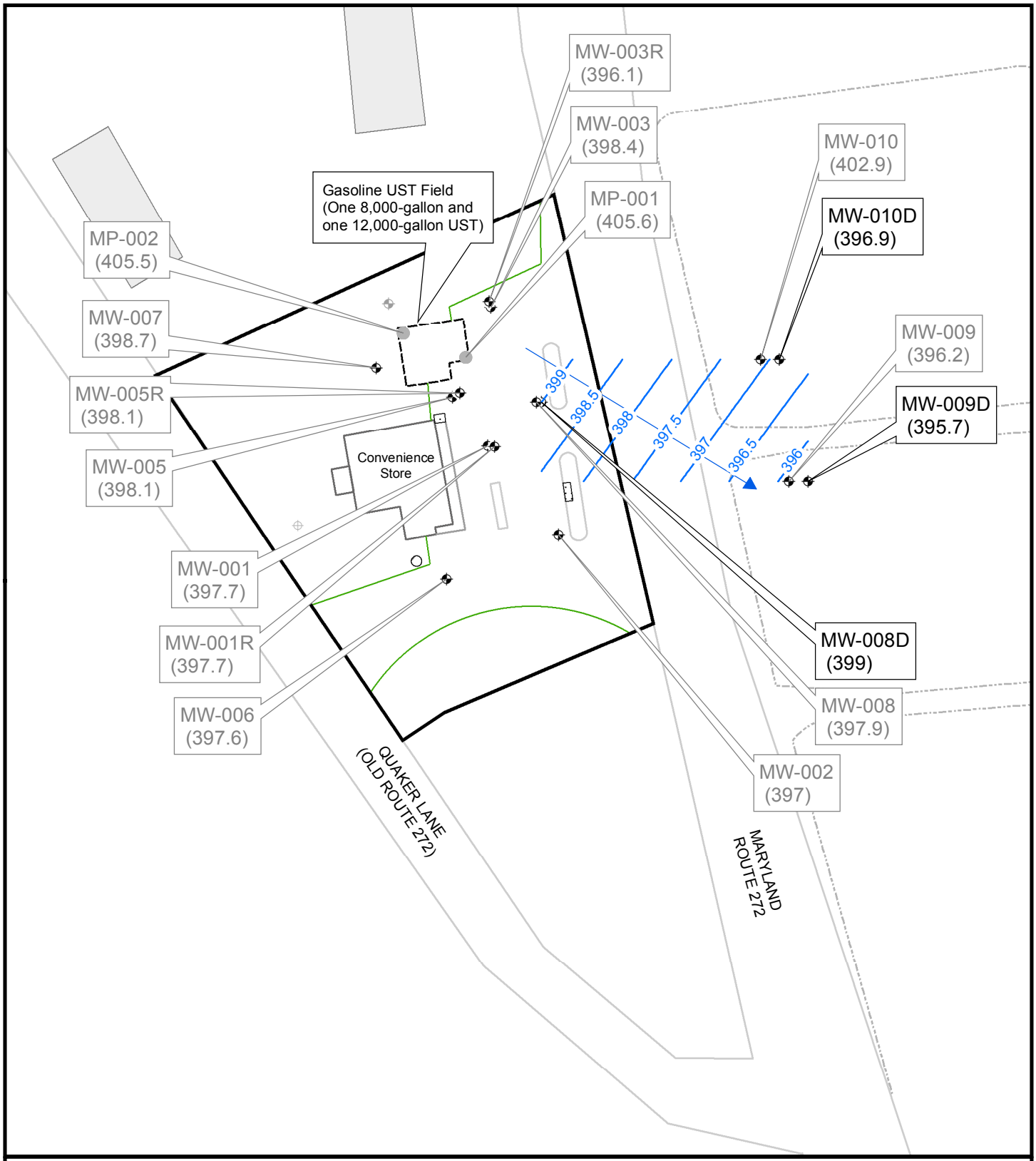
MAP SCALE: 1 inch = 75 feet
0 12.5 25 50 75 100 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***NOVEMBER 2015***

N
S

Groundwater Depth Interpolation Method: Local Polynomial Interpolation (Order of Polynomial: 1, Exploratory Trend Surface Analysis: 40)



GROUNDWATER CONTOUR MAP (October 20th-22nd, 2015; "D" Wells Only)

Groundwater Directional Flow

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

Lost/Abandoned Monitoring Well
Potable Well
Leak Detection Wells
Monitoring Well
Diesel Pump
Kerosene Pump
Off-Site Bulding
Septic Tank
Site Boundary

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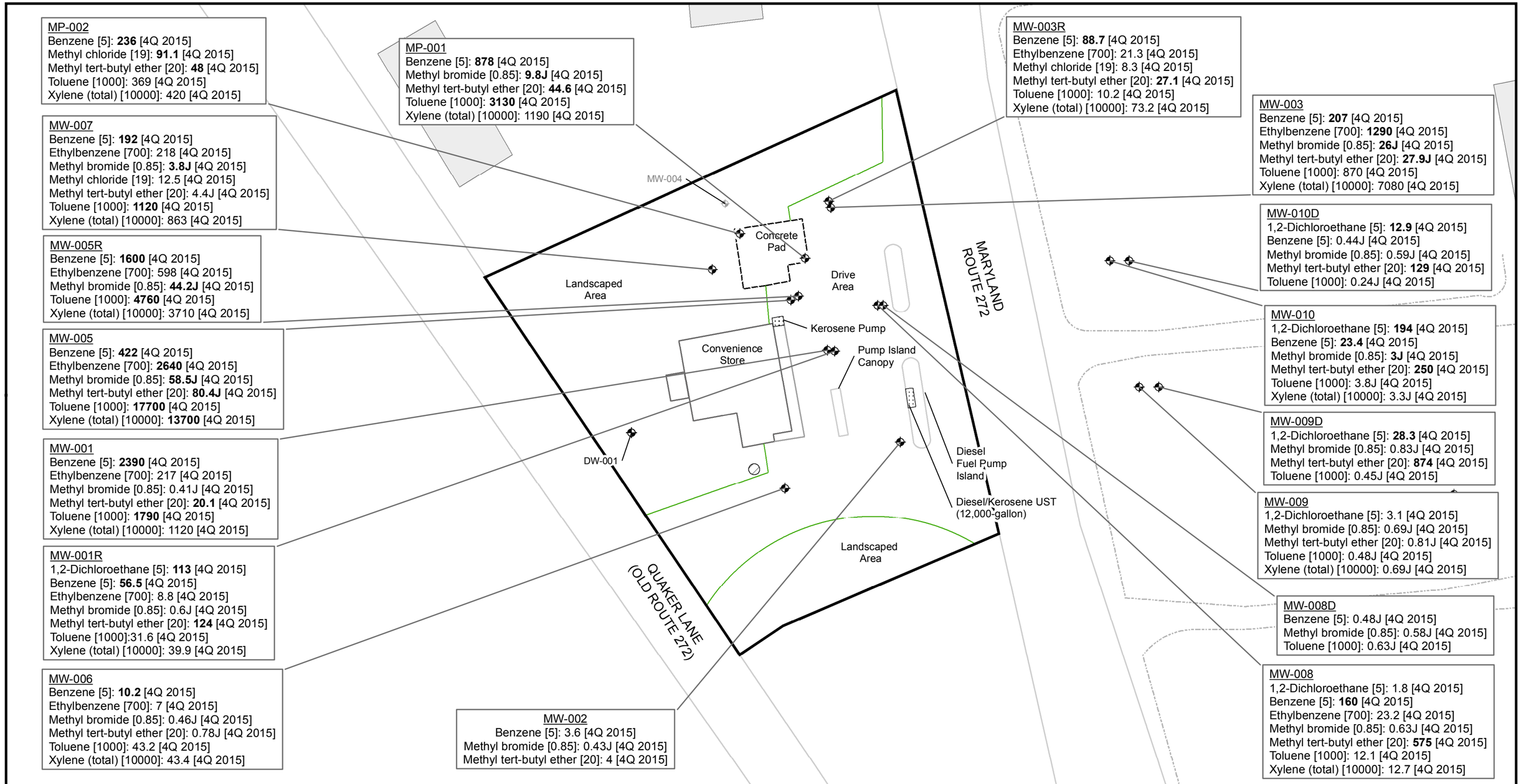
MAP SCALE: 1 inch = 75 feet
0 12.5 25 50 75 100 Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***NOVEMBER 2015***

N
S

Groundwater Depth Interpolation Method: Radial Basis Function (Kernel Function: Completely Regularized Spline)



GROUNDWATER CONTAMINANT DISTRIBUTION MAP (October 20th - 22nd, 2015)

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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: *NOVEMBER 2015*

(20151020,22gw)_ESRI CDM
Leak Detection Wells
Lost/Abandoned Monitoring Well
Monitoring Well
Potable Well
Diesel Pump
Kerosene Pump
Off-Site Bulding
Septic Tank
Site Boundary
Buildings
Grassline
Site Features
Tank Field
Yard Boundary
Roads
Sidewalk

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

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).

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Fluid Levels Summary

Calvert Citgo 2815 Northeast Rd North East, Maryland **REPSG Project No.: 005977** **Sample Dates: 01/20/2015-10/22/2015**

Well	MC*	Unit	Ref. Elev.	Measure	Dry	Water Depth	Water Elev.	Corrected Depth	Corrected Elev.	Depth of Well	LNAPL	Thickness	DNAPL	Thickness	Remark
2015 [First Quarter]															
Sample Date: 01/20/2015															
MP-001	M	ft	415.6	Y	N	6.100	409.5	6.100	409.5	11.77	-	-	-	-	
MP-002	M	ft	416.0	Y	N	6.510	409.5	6.510	409.5	12.11	-	-	-	-	
MW-003	M	ft	415.2	Y	N	13.52	401.7	13.52	401.7	31.29	-	-	-	-	
MW-003R	M	ft	415.5	Y	N	13.17	402.3	13.17	402.3	29.08	-	-	-	-	
MW-005	M	ft	416.0	Y	N	14.85	401.2	14.85	401.2	25.04	-	-	-	-	
MW-005R	M	ft	415.7	Y	N	15.31	400.4	15.31	400.4	29.65	-	-	-	-	
MW-006	M	ft	415.7	Y	N	15.54	400.1	15.54	400.1	30.29	-	-	-	-	
MW-007	M	ft	416.9	Y	N	15.24	401.6	15.24	401.6	28.64	-	-	-	-	
Sample Date: 01/21/2015															
MW-001	M	ft	415.6	Y	N	15.27	400.3	15.27	400.3	28.74	-	-	-	-	
MW-001R	M	ft	415.2	Y	N	15.27	400.0	15.27	400.0	42.75	-	-	-	-	
MW-002	M	ft	414.6	Y	N	15.14	399.5	15.14	399.5	31.40	-	-	-	-	
MW-009	M	ft	415.0	Y	N	16.50	398.5	16.50	398.5	29.96	-	-	-	-	
MW-009D	M	ft	415.0	Y	N	17.62	397.3	17.62	397.3	66.58	-	-	-	-	
MW-010	M	ft	415.1	Y	N	15.97	399.2	15.97	399.2	30.00	-	-	-	-	
MW-010D	M	ft	415.1	Y	N	15.89	399.2	15.89	399.2	67.90	-	-	-	-	
Sample Date: 01/22/2015															
MW-008	M	ft	415.6	Y	N	14.97	400.6	14.97	400.6	72.43	-	-	-	-	
MW-008D	M	ft	415.4	Y	N	13.29	402.1	13.29	402.1	140.0	-	-	-	-	
2015 [Fourth Quarter]															
Sample Date: 10/20/2015															
MP-002	M	ft	416.0	Y	N	10.46	405.5	10.46	405.5	12.16	-	-	-	-	
MW-003	M	ft	415.2	Y	N	16.84	398.4	16.84	398.4	31.54	-	-	-	-	
MW-003R	M	ft	415.5	Y	N	19.39	396.1	19.39	396.1	25.03	-	-	-	-	
MW-007	M	ft	416.9	Y	N	18.15	398.7	18.15	398.7	28.68	-	-	-	-	
MW-009	M	ft	415.0	Y	N	18.80	396.2	18.80	396.2	30.14	-	-	-	-	
MW-009D	M	ft	415.0	Y	N	19.30	395.7	19.30	395.7	66.69	-	-	-	-	

* 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: 01/20/2015-10/22/2015

Well	MC*	Unit	Ref. Elev.	Measure	Dry	Water Depth	Water Elev.	Corrected Depth	Corrected Elev.	Depth of Well	LNAPL	Thickness	DNAPL	Thickness	Remark
2015 [Fourth Quarter]															
Sample Date: 10/20/2015															
MW-010	M	ft	415.1	Y	N	12.24	402.9	12.24	402.9	17.85	-	-	-	-	
MW-010D	M	ft	415.1	Y	N	18.25	396.9	18.25	396.9	68.83	-	-	-	-	
Sample Date: 10/21/2015															
MP-001	M	ft	415.6	Y	N	9.990	405.6	9.990	405.6	12.66	-	-	-	-	
MW-001	M	ft	415.6	Y	N	17.84	397.7	17.84	397.7	29.89	-	-	-	-	
MW-001R	M	ft	415.2	Y	N	17.49	397.7	17.49	397.7	42.84	-	-	-	-	
MW-005	M	ft	416.0	Y	N	17.90	398.1	17.90	398.1	29.97	-	-	-	-	
MW-005R	M	ft	415.7	Y	N	17.59	398.1	17.59	398.1	25.07	-	-	-	-	
MW-006	M	ft	415.7	Y	N	18.01	397.6	18.01	397.6	30.46	-	-	-	-	
Sample Date: 10/22/2015															
MW-002	M	ft	414.6	Y	N	17.65	397.0	17.65	397.0	29.36	-	-	-	-	
MW-008	M	ft	415.6	Y	N	17.64	397.9	17.64	397.9	27.65	-	-	-	-	
MW-008D	M	ft	415.4	Y	N	16.45	399.0	16.45	399.0	146.8	-	-	-	-	
2015 [Second Quarter]															
Sample Date: 04/27/2015															
MP-001	M	ft	415.6	Y	N	4.910	410.6	4.910	410.6	11.71	-	-	-	-	
MP-002	M	ft	416.0	Y	N	5.430	410.6	5.430	410.6	12.24	-	-	-	-	
MW-002	M	ft	414.6	Y	N	15.42	399.2	15.42	399.2	31.52	-	-	-	-	
MW-003	M	ft	415.2	Y	N	13.50	401.7	13.50	401.7	31.31	-	-	-	-	
MW-003R	M	ft	415.5	Y	N	13.25	402.2	13.25	402.2	24.90	-	-	-	-	
MW-005	M	ft	416.0	Y	N	15.34	400.7	15.34	400.7	29.80	-	-	-	-	
MW-005R	M	ft	415.7	Y	N	15.12	400.6	15.12	400.6	25.07	-	-	-	-	
MW-006	M	ft	415.7	Y	N	15.82	399.8	15.82	399.8	30.34	-	-	-	-	
MW-007	M	ft	416.9	Y	N	15.94	400.9	15.94	400.9	28.69	-	-	-	-	
Sample Date: 04/28/2015															
MW-008D	M	ft	415.4	Y	N	13.46	402.0	13.46	402.0	144.0	-	-	-	-	
Sample Date: 04/29/2015															

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

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React Environmental
Professional Services Group, Inc.

Fluid Levels Summary

Calvert Citgo 2815 Northeast Rd North East, Maryland REPSG Project No.: 005977 Sample Dates: 01/20/2015-10/22/2015

Well	MC*	Unit	Ref. Elev.	Measure	Dry	Water Depth	Water Elev.	Corrected Depth	Corrected Elev.	Depth of Well	LNAPL	Thickness	DNAPL	Thickness	Remark
2015 [Second Quarter]															
MW-001	M	ft	415.6	Y	N	15.51	400.0	15.51	400.0	28.70	-	-	-	-	
MW-001R	M	ft	415.2	Y	N	15.74	399.5	15.74	399.5	42.81	-	-	-	-	
MW-009	M	ft	415.0	Y	N	16.82	398.2	16.82	398.2	30.16	-	-	-	-	
MW-010	M	ft	415.1	Y	N	15.94	399.2	15.94	399.2	30.09	-	-	-	-	
Sample Date:	05/01/2015														
MW-008	M	ft	415.6	Y	N	16.01	399.5	16.01	399.5	72.93	-	-	-	-	
MW-009D	M	ft	415.0	Y	N	16.79	398.2	16.79	398.2	67.90	-	-	-	-	
MW-010D	M	ft	415.1	Y	N	15.72	399.4	15.72	399.4	69.28	-	-	-	-	
2015 [Third Quarter]															
Sample Date:	07/13/2015														
MP-001	M	ft	415.6	Y	N	5.350	410.2	5.350	410.2	11.81	-	-	-	-	
MP-002	M	ft	416.0	Y	N	5.710	410.3	5.710	410.3	12.28	-	-	-	-	
MW-003	M	ft	415.2	Y	N	13.15	402.1	13.15	402.1	31.50	-	-	-	-	
MW-003R	M	ft	415.5	Y	N	12.85	402.6	12.85	402.6	25.10	-	-	-	-	
MW-005	M	ft	416.0	Y	N	14.94	401.1	14.94	401.1	29.90	-	-	-	-	
MW-005R	M	ft	415.7	Y	N	14.55	401.2	14.55	401.2	25.09	-	-	-	-	
MW-006	M	ft	415.7	Y	N	15.26	400.4	15.26	400.4	30.42	-	-	-	-	
MW-007	M	ft	416.9	Y	N	14.45	402.4	14.45	402.4	28.75	-	-	-	-	
Sample Date:	07/14/2015														
MW-001	M	ft	415.6	Y	N	15.34	400.2	15.34	400.2	28.69	-	-	-	-	
MW-001R	M	ft	415.2	Y	N	14.76	400.5	14.76	400.5	42.80	-	-	-	-	
MW-002	M	ft	414.6	Y	N	14.72	399.9	14.72	399.9	31.49	-	-	-	-	
MW-008	M	ft	415.6	Y	N	15.80	399.8	15.80	399.8	72.00	-	-	-	-	
MW-009	M	ft	415.0	Y	N	16.80	398.2	16.80	398.2	30.06	-	-	-	-	
Sample Date:	07/15/2015														
MW-008D	M	ft	415.4	Y	N	13.11	402.3	13.11	402.3	140.0	-	-	-	-	
MW-009D	M	ft	415.0	Y	N	16.80	398.2	16.80	398.2	67.00	-	-	-	-	
MW-010	M	ft	415.1	Y	N	15.79	399.4	15.79	399.4	30.10	-	-	-	-	
MW-010D	M	ft	415.1	Y	N	15.56	399.5	15.56	399.5	68.00	-	-	-	-	

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

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 2

Courier:

Tracking #:

COC#

Co. Name: RPSG Inc.

Contact (Report to): James Manuel

Phone: 215-229-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11340

Project Name/#: Calvert Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? Y -Y jmanuel@rpsg.com

Fax? -Y No.:

***Container Type	VOA																				
***Container Size	40mL																				
*** Preservative	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	VOCs by 5211.2 including fuel oxygenates															
1 MW-002		10/20/15	11:10	G	GW	3															
2 MW-003		10/20/15	12:20	G	GW	3															
3 MW-003R		10/20/15	11:45	G	GW	3															
4 MW-007		10/20/15	10:30	G	GW	3															
5 MW-010		10/20/15	13:40	G	GW	3															
6 MW-010D		10/20/15	14:15	G	GW	3															
7 MW-009		10/20/15	14:50	G	GW	3															
8 MW-009D		10/20/15	15:25	G	GW	3															

Enter Number of Containers Per Analysis

Circle appropriate Y or N.	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?
	N	N	N	N
	Y	Y	Y	Y
	N	N	N	N
	Y	Y	Y	Y

Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

Receipt Information (completed by Sample Receiving)

Performed by: INITIAL HERE

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible]	10/21/15	14:[illegible]	2 [illegible]	10.21	1435
3			4		
5			6		
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 [ ]

Other

EDDs Required? Y If yes, format type: EQUIS

⇨Enter PWSID No.

DOD Criteria Required?

ALS 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 01-2013

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

COC#

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave
Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11340

Project Name/#: Calvert Cliffs / 5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -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	VOCs by 524.2 including fuel oxygenates																	
1 FB-001		10/20/15	10:11	G	GW	3																	
2																							
3																							
4																							
5																							
6																							
7																							
8																							

***Container Type: VOA
***Container Size: 40mL
***Preservative: HCl

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)

Performed by: ENTER HERE

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Circle appropriate Y or N.				
Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(If present) Seals intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible]	10/21	14:32	2 [illegible]	10.21	1434
3			4		
5			6		
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? [Y] If yes, format type: EQUIS

Other

⇨ Enter PWSID No.

DOD Criteria Required?

ALS 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.

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ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:
Tracking #:
COC#

Co. Name: REPSG Inc.
Contact (Report to): James Manuel
Phone: 215-729-3220
Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to):
PO#: 11341

Project Name/#: Calvert CH90/5977
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] -Y jmanuel@repsg.com
Fax? [ ] -Y No.:

***Container Type	VOA
***Container Size	40mL
***Preservative	HCl

ANALYSES/METHOD REQUESTED: VOCs 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	VOCs by 524.2 including fuel oxygenates
1	MW-001		10/21/15	13:00	G	GW	3
2	MW-001R		10/21/15	12:30	G	GW	3
3	MW-005		10/21/15	11:50	G	GW	3
4	MW-005R		10/21/15	11:00	G	GW	3
5	MW-006		10/21/15	13:30	G	GW	3
6	FB-002		10/21/15	12:12	G	GW	3
7	DUP-001		10/21/15		G	GW	3
8	TB-001		10/21/15		G	GW	3

Receipt Information (completed by Sample Receiving)
Performed by:
Cooler Temp:
Therm. ID:
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): Michele Jordan

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Natalie [illegible]	10/22/15	10:55	2	[illegible]	10/22	1055
3				4			
5				6			
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: Other EQUIS
Enter PWSID No
DOD Criteria Required?

ALS FIELD SERVICES
[X] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[X] 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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ALS Environmental

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Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

COC#

Co. Name: REPSG, Inc.

Contact (Report to): Jaime Manuel

Phone: 215-729-3210

Address: 6401 Kingsessing Ave
Philadelphia, PA 19142

Bill to (if different than Report to):

PO#: 11341

Project Name/#: Calvert City/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] Y jmanuel@repsg

Fax? [ ] Y No.

***Container Type	VOA															
***Container Size	40mL															
*** Preservative	HCL															
ANALYSES/METHOD REQUESTED																
			VOCs by 8260 including Fuel oxygenates													

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 MP-001		10/21	10:40	G	GW	3										
2																
3																
4																
5																
6																
7																
8																

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Natalie Griffith	10/22/15	10:55	2 [illegible]	10-22	1057
3			4		
5			6		
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 [✓] NJ [ ] NY [ ] PA [ ]

Other

EDDs Required? [✓] If yes, format type: EQuIS

⇒ Enter PWSID No.

DOD Criteria Required?

ALS 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

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.

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ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 #:

COC#

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11342

Project Name/#: Calvert Citgo / 5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@repsg.com

Fax? [ ] -Y No.

						***Container Type	VOA																
						***Container Size	40mL																
						*** Preservative	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	VOCs 5 1 [redacted] 8260B including fuel oxygenates																	
						Enter Number of Containers Per Analysis																	
1 MW-002		10/22/15	1030	G	GW	3																	
2 MW-008		10/22/15	1115	G	GW	3																	
3 MW-008 D		10/22/15	1430	G	GW	3																	
4 TB-002		10/22/15		G	GW	3																	
5 FB-003		10/22/15	1212	G	GW	3																	
6																							
7																							
8																							

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Circle appropriate Y or N.				
Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			2		
3			4		
5			6		
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?

ALS FIELD SERVICES

[ ] 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

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.

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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: 10/20/2015-10/22/2015**

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:	10/21/2015	10/20/2015	10/21/2015	10/21/2015	10/22/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<30U#	<1.5U#	<1.5U#	<1.5U#	<1.5U#	<75U#
Dichlorofluoromethane	ug/l	**		<7.4U	<0.37U	<0.37U	<0.37U	<0.37U	<18.5U
Tert-Amyl Methyl Ether	ug/l	**		<4U	<0.2U	<0.2U	<0.2U	<0.2U	<10U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<4.4U	<0.22U	<0.22U	<0.22U	<0.22U	<11U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<6.8U#	<0.34U#	<0.34U#	<0.34U#	<0.34U#	<17U#
1,1,2-Trichloroethane	ug/l	5		<6.6U#	<0.33U	<0.33U	<0.33U	<0.33U	<16.5U#
1,1-Dichloroethane	ug/l	90		<5.6U	<0.28U	<0.28U	<0.28U	<0.28U	<14U
1,1-Dichloroethylene	ug/l	7		<5.8U	<0.29U	<0.29U	<0.29U	<0.29U	<14.5U#
1,2-Dibromoethane	ug/l	0.05		<5.6U#	<0.28U#	<0.28U#	<0.28U#	<0.28U#	<14U#
1,2-Dichloroethane	ug/l	5		<6.4U#	<0.32U	<0.32U	**113**	<0.32U	<16U#
1,2-Dichloropropane	ug/l	5		<4.8U	<0.24U	<0.24U	<0.24U	<0.24U	<12U#
2-Hexanone	ug/l	**		<26U	<1.3U	<1.3U	<1.3U	<1.3U	<65U
Acetone	ug/l	550		<62U	45.2	12.1	<3.1U	3.3J	<155U
Benzene	ug/l	5		**878**	**236**	**2390**	**56.5**	3.6	**207**
Bromodichloromethane	ug/l	80		<5.4U	<0.27U	<0.27U	<0.27U	<0.27U	<13.5U
Bromoform	ug/l	80		<8U	<0.4U	<0.4U	<0.4U	<0.4U	<20U
Carbon disulfide	ug/l	100		<4.6U	0.79J	0.29J	<0.23U	<0.23U	12.8J
Carbon tetrachloride	ug/l	5		<6.2U#	<0.31U	<0.31U	<0.31U	<0.31U	<15.5U#

** 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 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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:	10/21/2015	10/20/2015	10/21/2015	10/21/2015	10/22/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Chlorobenzene	ug/l	100		<3.8U	<0.19U	<0.19U	<0.19U	<0.19U	<9.5U
Chlorobromomethane	ug/l	**		<6.4U	<0.32U	<0.32U	<0.32U	<0.32U	<16U
Chloroethane	ug/l	3.6		<6.6U#	<0.33U	<0.33U	<0.33U	<0.33U	<16.5U#
Chloroform	ug/l	80		4.4J	<0.21U	<0.21U	<0.21U	<0.21U	<10.5U
cis-1,2-Dichloroethylene	ug/l	70		<6.4U	<0.32U	<0.32U	<0.32U	<0.32U	<16U
cis-1,3-Dichloropropene	ug/l	0.44		<6.2U#	<0.31U	<0.31U	<0.31U	<0.31U	<15.5U#
Dibromochloromethane	ug/l	80		<9U	<0.45U	<0.45U	<0.45U	<0.45U	<22.5U
Dichlorodifluoromethane	ug/l	**		<6.6U	<0.33U	<0.33U	<0.33U	<0.33U	<16.5U
Ethyl tert-butyl ether	ug/l	**		<3.8U	<0.19U	<0.19U	<0.19U	<0.19U	<9.5U
Ethylbenzene	ug/l	700		<6.8U	<0.34U	217	8.8	<0.34U	**1290**
Isopropyl Ether	ug/l	**		105	113	3.6	24.1	<0.25U	44.4J
m/p-xylene	ug/l	**		798	216	942	30.1	<0.52U	5410
Methyl bromide	ug/l	0.85		**9.8J**	<0.39U	0.41J	0.6J	0.43J	**26J**
Methyl chloride	ug/l	19		<6.2U	**91.1**	<0.31U	<0.31U	<0.31U	<15.5U
Methyl ethyl ketone	ug/l	700		<36U	<1.8U	7.4J	<1.8U	<1.8U	<90U
Methyl isobutylketone (MIBK)	ug/l	630		<30U	<1.5U	<1.5U	<1.5U	<1.5U	<75U
Methyl tert-butyl ether	ug/l	20		**44.6**	**48**	**20.1**	**124**	4	**27.9J**
Methylene chloride	ug/l	5		<9U#	<0.45U	<0.45U	<0.45U	<0.45U	<22.5U#
o-Xylene	ug/l	**		396	205	175	9.8	<0.33U	1680
Styrene	ug/l	100		<4.8U	<0.24U	<0.24U	<0.24U	<0.24U	<12U
Tert-Amyl alcohol	ug/l	**		1330	1110	833	1830	<6.6U	774

** 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 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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:	10/21/2015	10/20/2015	10/21/2015	10/21/2015	10/22/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Tert-Amyl Ethyl Ether	ug/l	**		<5.8U	<0.29U	<0.29U	<0.29U	<0.29U	<14.5U
tert-Butylalcohol	ug/l	**		442	280	135	1200	6.3J	264J
Tetrachloroethylene	ug/l	5		<7U#	<0.35U	<0.35U	<0.35U	<0.35U	<17.5U#
Toluene	ug/l	1000		**3130**	369	**1790**	31.6	<0.23U	870
trans-1,2-Di-chloroethylene	ug/l	100		<5.2U	<0.26U	<0.26U	<0.26U	<0.26U	<13U
trans-1,3-Dichloropropene	ug/l	0.44		<5.8U#	<0.29U	<0.29U	<0.29U	<0.29U	<14.5U#
Trichloroethylene	ug/l	5		<6.6U#	<0.33U	1.1	<0.33U	<0.33U	<16.5U#
Vinyl chloride	ug/l	2		<6U#	<0.3U	<0.3U	<0.3U	<0.3U	<15U#
Xylene (total)	ug/l	10000		1190	420	1120	39.9	<0.66U	7080

Constituent	**Unit**	***Standard**	**Location:**	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	10/20/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<7.5U#	<150U#	<150U#	<1.5U#	<7.5U#	<1.5U#
Dichlorofluoromethane	ug/l	**		<1.9U	<37U	<37U	<0.37U	<1.9U	<0.37U
Tert-Amyl Methyl Ether	ug/l	**		2.1J	<20U	<20U	<0.2U	<1U	13.5
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<1.1U	<22U	<22U	<0.22U	<1.1U	<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<1.7U#	<34U#	<34U#	<0.34U#	<1.7U#	<0.34U#

** 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 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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:	10/20/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
1,1,2-Trichloroethane	ug/l	5		<1.7U	<33U#	<33U#	<0.33U	<1.7U	<0.33U
1,1-Dichloroethane	ug/l	90		<1.4U	<28U	<28U	<0.28U	<1.4U	<0.28U
1,1-Dichloroethylene	ug/l	7		<1.5U	<29U#	<29U#	<0.29U	<1.5U	<0.29U
1,2-Dibromoethane	ug/l	0.05		<1.4U#	<28U#	<28U#	<0.28U#	<1.4U#	<0.28U#
1,2-Dichloroethane	ug/l	5		<1.6U	<32U#	<32U#	<0.32U	<1.6U	1.8
1,2-Dichloropropane	ug/l	5		<1.2U	<24U#	<24U#	<0.24U	<1.2U	<0.24U
2-Hexanone	ug/l	**		<6.5U	<130U	<130U	<1.3U	<6.5U	<1.3U
Acetone	ug/l	550		19.9J	<310U	<310U	<3.1U	29.4J	<3.1U
Benzene	ug/l	5		**88.7**	**422**	**1600**	**10.2**	**192**	**160**
Bromodichloromethane	ug/l	80		<1.4U	<27U	<27U	<0.27U	<1.4U	<0.27U
Bromoform	ug/l	80		<2U	<40U	<40U	<0.4U	<2U	<0.4U
Carbon disulfide	ug/l	100		1.2J	<23U	<23U	<0.23U	<1.2U	<0.23U
Carbon tetrachloride	ug/l	5		<1.6U	<31U#	<31U#	<0.31U	<1.6U	<0.31U
Chlorobenzene	ug/l	100		<0.95U	<19U	<19U	2.1	<0.95U	<0.19U
Chlorobromomethane	ug/l	**		<1.6U	<32U	<32U	<0.32U	<1.6U	<0.32U
Chloroethane	ug/l	3.6		<1.7U	<33U#	<33U#	<0.33U	<1.7U	<0.33U
Chloroform	ug/l	80		<1.1U	<21U	<21U	<0.21U	<1.1U	<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<1.6U	<32U	<32U	<0.32U	<1.6U	<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<1.6U#	<31U#	<31U#	<0.31U	<1.6U#	<0.31U
Dibromochloromethane	ug/l	80		<2.3U	<45U	<45U	<0.45U	<2.3U	<0.45U
Dichlorodifluoromethane	ug/l	**		<1.7U	<33U	<33U	<0.33U	<1.7U	<0.33U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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:	10/20/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Ethyl tert-butyl ether	ug/l	**		<0.95U	<19U	<19U	<0.19U	<0.95U	<0.19U
Ethylbenzene	ug/l	700		21.3	**2640**	598	7	218	23.2
Isopropyl Ether	ug/l	**		33.6	42.8J	<25U	<0.25U	5.1	27.5
m/p-xylene	ug/l	**		56.1	9840	2600	32.1	418	8.4
Methyl bromide	ug/l	0.85		<2U#	**58.5J**	**44.2J**	0.46J	**3.8J**	0.63J
Methyl chloride	ug/l	19		8.3	<31U#	<31U#	<0.31U	12.5	<0.31U
Methyl ethyl ketone	ug/l	700		<9U	<180U	<180U	<1.8U	<9U	<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		<7.5U	<150U	<150U	<1.5U	<7.5U	<1.5U
Methyl tert-butyl ether	ug/l	20		**27.1**	**80.4J**	<33U#	0.78J	4.4J	**575**
Methylene chloride	ug/l	5		<2.3U	<45U#	<45U#	<0.45U	<2.3U	<0.45U
o-Xylene	ug/l	**		17.1	3820	1120	11.3	445	4.2
Styrene	ug/l	100		<1.2U	<24U	<24U	<0.24U	1.6J	<0.24U
Tert-Amyl alcohol	ug/l	**		246	2790	781J	<6.6U	91.2	578
Tert-Amyl Ethyl Ether	ug/l	**		<1.5U	<29U	<29U	<0.29U	<1.5U	<0.29U
tert-Butylalcohol	ug/l	**		187	1800	366J	<2.2U	30.5J	768
Tetrachloroethylene	ug/l	5		<1.8U	<35U#	<35U#	<0.35U	<1.8U	<0.35U
Toluene	ug/l	1000		10.2	**17700**	**4760**	43.2	**1120**	12.1
trans-1,2-Di-chloroethylene	ug/l	100		<1.3U	<26U	<26U	<0.26U	<1.3U	<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<1.5U#	<29U#	<29U#	<0.29U	<1.5U#	<0.29U
Trichloroethylene	ug/l	5		<1.7U	<33U#	<33U#	<0.33U	<1.7U	<0.33U
Vinyl chloride	ug/l	2		<1.5U	<30U#	<30U#	<0.3U	<1.5U	<0.3U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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:	10/20/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Xylene (total)	ug/l	10000		73.2	**13700**	3710	43.4	863	12.7

Constituent	**Unit**	***Standard**	**Location:**	MW-008D	MW-009	MW-009D	MW-010	MW-010D
			Date:	10/22/2015	10/20/2015	10/20/2015	10/20/2015	10/20/2015
			Depth (ft):	0	0	0	0	0
Not Otherwise Specified								
DBCP	ug/l	0.2		<1.5U#	<1.5U#	<1.5U#	<7.5U#	<1.5U#
Dichlorofluoromethane	ug/l	**		<0.37U	<0.37U	<0.37U	<1.9U	<0.37U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U	<0.2U	<0.2U	<1U	0.48J
Volatile Organic Compounds (VOCs)								
1,1,1-trichloroethane	ug/l	200		<0.22U	<0.22U	<0.22U	<1.1U	<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#	<0.34U#	<0.34U#	<1.7U#	<0.34U#
1,1,2-Trichloroethane	ug/l	5		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U
1,1-Dichloroethane	ug/l	90		<0.28U	<0.28U	<0.28U	<1.4U	<0.28U
1,1-Dichloroethylene	ug/l	7		<0.29U	<0.29U	<0.29U	<1.5U	<0.29U
1,2-Dibromoethane	ug/l	0.05		<0.28U#	<0.28U#	<0.28U#	<1.4U#	<0.28U#
1,2-Dichloroethane	ug/l	5		<0.32U	3.1	**28.3**	**194**	**12.9**
1,2-Dichloropropane	ug/l	5		<0.24U	<0.24U	<0.24U	<1.2U	<0.24U
2-Hexanone	ug/l	**		<1.3U	<1.3U	<1.3U	<6.5U	<1.3U
Acetone	ug/l	550		7.8J	<3.1U	<3.1U	<15.5U	<3.1U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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	MW-009	MW-009D	MW-010	MW-010D
			Date:	10/22/2015	10/20/2015	10/20/2015	10/20/2015	10/20/2015
			Depth (ft):	0	0	0	0	0
Benzene	ug/l	5		0.48J	<0.23U	<0.23U	**23.4**	0.44J
Bromodichloromethane	ug/l	80		<0.27U	<0.27U	<0.27U	<1.4U	<0.27U
Bromoform	ug/l	80		<0.4U	<0.4U	<0.4U	<2U	<0.4U
Carbon disulfide	ug/l	100		<0.23U	<0.23U	<0.23U	<1.2U	<0.23U
Carbon tetrachloride	ug/l	5		<0.31U	<0.31U	<0.31U	<1.6U	<0.31U
Chlorobenzene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.95U	<0.19U
Chlorobromomethane	ug/l	**		<0.32U	<0.32U	<0.32U	<1.6U	<0.32U
Chloroethane	ug/l	3.6		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U
Chloroform	ug/l	80		<0.21U	<0.21U	<0.21U	<1.1U	<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U	<0.32U	<0.32U	<1.6U	<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U	<0.31U	<0.31U	<1.6U#	<0.31U
Dibromochloromethane	ug/l	80		<0.45U	<0.45U	<0.45U	<2.3U	<0.45U
Dichlorodifluoromethane	ug/l	**		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.95U	<0.19U
Ethylbenzene	ug/l	700		<0.34U	<0.34U	<0.34U	<1.7U	<0.34U
Isopropyl Ether	ug/l	**		<0.25U	<0.25U	<0.25U	27.6	4.3
m/p-xylene	ug/l	**		<0.52U	0.69J	<0.52U	3.3J	<0.52U
Methyl bromide	ug/l	0.85		0.58J	0.69J	0.83J	**3J**	0.59J
Methyl chloride	ug/l	19		<0.31U	<0.31U	<0.31U	<1.6U	<0.31U
Methyl ethyl ketone	ug/l	700		<1.8U	<1.8U	<1.8U	<9U	<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U	<1.5U	<1.5U	<7.5U	<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 10/20/2015-10/22/2015**

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	MW-009	MW-009D	MW-010	MW-010D
			Date:	10/22/2015	10/20/2015	10/20/2015	10/20/2015	10/20/2015
			Depth (ft):	0	0	0	0	0
Methyl tert-butyl ether	ug/l	20		<0.33U	0.81J	**874**	**250**	**129**
Methylene chloride	ug/l	5		<0.45U	<0.45U	<0.45U	<2.3U	<0.45U
o-Xylene	ug/l	**		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U
Styrene	ug/l	100		<0.24U	<0.24U	<0.24U	<1.2U	<0.24U
Tert-Amyl alcohol	ug/l	**		<6.6U	<6.6U	205	6500	248
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U	<0.29U	<0.29U	<1.5U	<0.29U
tert-Butylalcohol	ug/l	**		<2.2U	<2.2U	5280	1450	117
Tetrachloroethylene	ug/l	5		<0.35U	<0.35U	<0.35U	<1.8U	<0.35U
Toluene	ug/l	1000		0.63J	0.48J	0.45J	3.8J	0.24J
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U	<0.26U	<0.26U	<1.3U	<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U	<0.29U	<0.29U	<1.5U#	<0.29U
Trichloroethylene	ug/l	5		<0.33U	<0.33U	<0.33U	<1.7U	<0.33U
Vinyl chloride	ug/l	2		<0.3U	<0.3U	<0.3U	<1.5U	<0.3U
Xylene (total)	ug/l	10000		<0.66U	0.69J	<0.66U	3.3J	<0.66U

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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
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 28, 2015

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2103249**
Purchase Order:	**11340**	Workorder ID:	**2015-CALVERT CITGO/5977**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, October 21, 2015.

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 Ms. Susan J Scherer (Project Coordinator) 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.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. S Shourds , Mr. John Filoon

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2103249001	MP-002	Ground Water	10/20/2015 11:10	10/21/2015 21:55	Collected by Client
2103249002	MW-003	Ground Water	10/20/2015 12:20	10/21/2015 21:55	Collected by Client
2103249003	MW-003R	Ground Water	10/20/2015 11:45	10/21/2015 21:55	Collected by Client
2103249004	MW-007	Ground Water	10/20/2015 10:30	10/21/2015 21:55	Collected by Client
2103249005	MW-010	Ground Water	10/20/2015 13:40	10/21/2015 21:55	Collected by Client
2103249006	MW-010D	Ground Water	10/20/2015 14:15	10/21/2015 21:55	Collected by Client
2103249007	MW-009	Ground Water	10/20/2015 14:50	10/21/2015 21:55	Collected by Client
2103249008	MW-009D	Ground Water	10/20/2015 15:25	10/21/2015 21:55	Collected by Client
2103249009	FB-001	Ground Water	10/20/2015 10:11	10/21/2015 21:55	Collected by Client

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SAMPLE SUMMARY

Workorder: 2103249 2015-CALVERT CITGO/5977

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 preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

PROJECT SUMMARY

Workorder: 2103249 2015-CALVERT CITGO/5977

Sample Comments

Lab ID: 2103249002 **Sample ID:** MW-003 **Sample Type:** SAMPLE

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Lab ID: 2103249003 **Sample ID:** MW-003R **Sample Type:** SAMPLE

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Lab ID: 2103249004 **Sample ID:** MW-007 **Sample Type:** SAMPLE

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Lab ID: 2103249005 **Sample ID:** MW-010 **Sample Type:** SAMPLE

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Lab ID: 2103249006 **Sample ID:** MW-010D **Sample Type:** SAMPLE

Methods for the analysis of volatile organics require that the sample be preserved to a pH less than 2 using HCl. This sample had a pH greater than 2 when received by the lab.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249001** Date Collected: 10/20/2015 11:10 Matrix: Ground Water
Sample ID: **MP-002** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	45.2		ug/L	10.0	3.1	SW846 8260B		10/27/15 00:07	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 00:07	CJG	A
tert-Amyl Alcohol	1110		ug/L	100	66.0	SW846 8260B		10/27/15 20:37	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 00:07	CJG	A
Benzene	236		ug/L	10.0	2.3	SW846 8260B		10/27/15 20:37	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 00:07	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 00:07	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 00:07	CJG	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		10/27/15 00:07	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 00:07	CJG	A
tert-Butyl Alcohol	280		ug/L	10.0	2.2	SW846 8260B		10/27/15 00:07	CJG	A
Carbon Disulfide	0.79J	J	ug/L	1.0	0.23	SW846 8260B		10/27/15 00:07	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 00:07	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 00:07	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 00:07	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 00:07	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 00:07	CJG	A
Chloromethane	91.1		ug/L	1.0	0.31	SW846 8260B		10/27/15 00:07	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 00:07	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 00:07	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 00:07	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 00:07	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 00:07	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 00:07	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 00:07	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 00:07	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 00:07	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 00:07	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 00:07	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 00:07	CJG	A
Diisopropyl ether	113		ug/L	1.0	0.25	SW846 8260B		10/27/15 00:07	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 00:07	CJG	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/27/15 00:07	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 00:07	CJG	A
Methyl t-Butyl Ether	48.0	1	ug/L	1.0	0.33	SW846 8260B		10/27/15 00:07	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 00:07	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249001** Date Collected: 10/20/2015 11:10 Matrix: Ground Water
Sample ID: **MP-002** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 00:07	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 00:07	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 00:07	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 00:07	CJG	A
Toluene	369		ug/L	10.0	2.3	SW846 8260B			10/27/15 20:37	CJG	A
Total Xylenes	420		ug/L	30.0	6.6	SW846 8260B			10/27/15 20:37	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 00:07	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 00:07	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 00:07	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 00:07	CJG	A
o-Xylene	205		ug/L	10.0	3.3	SW846 8260B			10/27/15 20:37	CJG	A
mp-Xylene	216		ug/L	20.0	5.2	SW846 8260B			10/27/15 20:37	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.9		%	62 - 133	SW846 8260B			10/27/15 00:07	CJG	A
1,2-Dichloroethane-d4 (S)	96.1		%	62 - 133	SW846 8260B			10/27/15 20:37	CJG	A
4-Bromofluorobenzene (S)	103		%	79 - 114	SW846 8260B			10/27/15 00:07	CJG	A
4-Bromofluorobenzene (S)	101		%	79 - 114	SW846 8260B			10/27/15 20:37	CJG	A
Dibromofluoromethane (S)	81.3		%	78 - 116	SW846 8260B			10/27/15 00:07	CJG	A
Dibromofluoromethane (S)	91.7		%	78 - 116	SW846 8260B			10/27/15 20:37	CJG	A
Toluene-d8 (S)	99.4		%	76 - 127	SW846 8260B			10/27/15 20:37	CJG	A
Toluene-d8 (S)	98.7		%	76 - 127	SW846 8260B			10/27/15 00:07	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249002** Date Collected: 10/20/2015 12:20 Matrix: Ground Water
Sample ID: **MW-003** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	500	155	SW846 8260B		10/27/15 00:26	CJG	A
tert-Amyl methyl ether	ND		ug/L	50.0	10.0	SW846 8260B		10/27/15 00:26	CJG	A
tert-Amyl Alcohol	774		ug/L	500	330	SW846 8260B		10/27/15 00:26	CJG	A
tert-Amyl Ethylether	ND		ug/L	50.0	14.5	SW846 8260B		10/27/15 00:26	CJG	A
Benzene	207		ug/L	50.0	11.5	SW846 8260B		10/27/15 00:26	CJG	A
Bromochloromethane	ND		ug/L	50.0	16.0	SW846 8260B		10/27/15 00:26	CJG	A
Bromodichloromethane	ND		ug/L	50.0	13.5	SW846 8260B		10/27/15 00:26	CJG	A
Bromoform	ND		ug/L	50.0	20.0	SW846 8260B		10/27/15 00:26	CJG	A
Bromomethane	26.0J	J	ug/L	50.0	19.5	SW846 8260B		10/27/15 00:26	CJG	A
2-Butanone	ND		ug/L	500	90.0	SW846 8260B		10/27/15 00:26	CJG	A
tert-Butyl Alcohol	264J	J	ug/L	500	110	SW846 8260B		10/27/15 00:26	CJG	A
Carbon Disulfide	12.8J	J	ug/L	50.0	11.5	SW846 8260B		10/27/15 00:26	CJG	A
Carbon Tetrachloride	ND		ug/L	50.0	15.5	SW846 8260B		10/27/15 00:26	CJG	A
Chlorobenzene	ND		ug/L	50.0	9.5	SW846 8260B		10/27/15 00:26	CJG	A
Chlorodibromomethane	ND		ug/L	50.0	22.5	SW846 8260B		10/27/15 00:26	CJG	A
Chloroethane	ND		ug/L	50.0	16.5	SW846 8260B		10/27/15 00:26	CJG	A
Chloroform	ND		ug/L	50.0	10.5	SW846 8260B		10/27/15 00:26	CJG	A
Chloromethane	ND		ug/L	50.0	15.5	SW846 8260B		10/27/15 00:26	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	350	75.0	SW846 8260B		10/27/15 00:26	CJG	A
1,2-Dibromoethane	ND		ug/L	50.0	14.0	SW846 8260B		10/27/15 00:26	CJG	A
Dichlorodifluoromethane	ND		ug/L	50.0	16.5	SW846 8260B		10/27/15 00:26	CJG	A
1,1-Dichloroethane	ND		ug/L	50.0	14.0	SW846 8260B		10/27/15 00:26	CJG	A
1,2-Dichloroethane	ND		ug/L	50.0	16.0	SW846 8260B		10/27/15 00:26	CJG	A
1,1-Dichloroethene	ND		ug/L	50.0	14.5	SW846 8260B		10/27/15 00:26	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	50.0	16.0	SW846 8260B		10/27/15 00:26	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	50.0	13.0	SW846 8260B		10/27/15 00:26	CJG	A
Dichlorofluoromethane	ND		ug/L	50.0	18.5	SW846 8260B		10/27/15 00:26	CJG	A
1,2-Dichloropropane	ND		ug/L	50.0	12.0	SW846 8260B		10/27/15 00:26	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	50.0	15.5	SW846 8260B		10/27/15 00:26	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	50.0	14.5	SW846 8260B		10/27/15 00:26	CJG	A
Diisopropyl ether	44.4J	J	ug/L	50.0	12.5	SW846 8260B		10/27/15 00:26	CJG	A
Ethyl tert-butyl ether	ND		ug/L	50.0	9.5	SW846 8260B		10/27/15 00:26	CJG	A
Ethylbenzene	1290		ug/L	50.0	17.0	SW846 8260B		10/27/15 00:26	CJG	A
2-Hexanone	ND		ug/L	250	65.0	SW846 8260B		10/27/15 00:26	CJG	A
Methyl t-Butyl Ether	27.9J	J1	ug/L	50.0	16.5	SW846 8260B		10/27/15 00:26	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	250	75.0	SW846 8260B		10/27/15 00:26	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249002** Date Collected: 10/20/2015 12:20 Matrix: Ground Water
Sample ID: **MW-003** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	50.0	22.5	SW846 8260B			10/27/15 00:26	CJG	A
Styrene	ND		ug/L	50.0	12.0	SW846 8260B			10/27/15 00:26	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	50.0	17.0	SW846 8260B			10/27/15 00:26	CJG	A
Tetrachloroethene	ND		ug/L	50.0	17.5	SW846 8260B			10/27/15 00:26	CJG	A
Toluene	870		ug/L	50.0	11.5	SW846 8260B			10/27/15 00:26	CJG	A
Total Xylenes	7080		ug/L	150	33.0	SW846 8260B			10/27/15 00:26	CJG	A
1,1,1-Trichloroethane	ND		ug/L	50.0	11.0	SW846 8260B			10/27/15 00:26	CJG	A
1,1,2-Trichloroethane	ND		ug/L	50.0	16.5	SW846 8260B			10/27/15 00:26	CJG	A
Trichloroethene	ND		ug/L	50.0	16.5	SW846 8260B			10/27/15 00:26	CJG	A
Vinyl Chloride	ND		ug/L	50.0	15.0	SW846 8260B			10/27/15 00:26	CJG	A
o-Xylene	1680		ug/L	50.0	16.5	SW846 8260B			10/27/15 00:26	CJG	A
mp-Xylene	5410		ug/L	100	26.0	SW846 8260B			10/27/15 00:26	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.6		%	62 - 133	SW846 8260B			10/27/15 00:26	CJG	A
4-Bromofluorobenzene (S)	97		%	79 - 114	SW846 8260B			10/27/15 00:26	CJG	A
Dibromofluoromethane (S)	91.4		%	78 - 116	SW846 8260B			10/27/15 00:26	CJG	A
Toluene-d8 (S)	98.3		%	76 - 127	SW846 8260B			10/27/15 00:26	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249003** Date Collected: 10/20/2015 11:45 Matrix: Ground Water
Sample ID: **MW-003R** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	19.9J	J	ug/L	50.0	15.5	SW846 8260B		10/27/15 00:45	CJG	A
tert-Amyl methyl ether	2.1J	J2	ug/L	5.0	1.0	SW846 8260B		10/27/15 00:45	CJG	A
tert-Amyl Alcohol	246		ug/L	50.0	33.0	SW846 8260B		10/27/15 00:45	CJG	A
tert-Amyl Ethylether	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 00:45	CJG	A
Benzene	88.7		ug/L	5.0	1.2	SW846 8260B		10/27/15 00:45	CJG	A
Bromochloromethane	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 00:45	CJG	A
Bromodichloromethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 00:45	CJG	A
Bromoform	ND		ug/L	5.0	2.0	SW846 8260B		10/27/15 00:45	CJG	A
Bromomethane	ND		ug/L	5.0	2.0	SW846 8260B		10/27/15 00:45	CJG	A
2-Butanone	ND		ug/L	50.0	9.0	SW846 8260B		10/27/15 00:45	CJG	A
tert-Butyl Alcohol	187		ug/L	50.0	11.0	SW846 8260B		10/27/15 00:45	CJG	A
Carbon Disulfide	1.2J	J	ug/L	5.0	1.2	SW846 8260B		10/27/15 00:45	CJG	A
Carbon Tetrachloride	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 00:45	CJG	A
Chlorobenzene	ND		ug/L	5.0	0.95	SW846 8260B		10/27/15 00:45	CJG	A
Chlorodibromomethane	ND		ug/L	5.0	2.3	SW846 8260B		10/27/15 00:45	CJG	A
Chloroethane	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 00:45	CJG	A
Chloroform	ND		ug/L	5.0	1.1	SW846 8260B		10/27/15 00:45	CJG	A
Chloromethane	8.3		ug/L	5.0	1.6	SW846 8260B		10/27/15 00:45	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	35.0	7.5	SW846 8260B		10/27/15 00:45	CJG	A
1,2-Dibromoethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 00:45	CJG	A
Dichlorodifluoromethane	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 00:45	CJG	A
1,1-Dichloroethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 00:45	CJG	A
1,2-Dichloroethane	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 00:45	CJG	A
1,1-Dichloroethene	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 00:45	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 00:45	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 00:45	CJG	A
Dichlorofluoromethane	ND		ug/L	5.0	1.9	SW846 8260B		10/27/15 00:45	CJG	A
1,2-Dichloropropane	ND		ug/L	5.0	1.2	SW846 8260B		10/27/15 00:45	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 00:45	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 00:45	CJG	A
Diisopropyl ether	33.6		ug/L	5.0	1.3	SW846 8260B		10/27/15 00:45	CJG	A
Ethyl tert-butyl ether	ND		ug/L	5.0	0.95	SW846 8260B		10/27/15 00:45	CJG	A
Ethylbenzene	21.3		ug/L	5.0	1.7	SW846 8260B		10/27/15 00:45	CJG	A
2-Hexanone	ND		ug/L	25.0	6.5	SW846 8260B		10/27/15 00:45	CJG	A
Methyl t-Butyl Ether	27.1	1	ug/L	5.0	1.7	SW846 8260B		10/27/15 00:45	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	25.0	7.5	SW846 8260B		10/27/15 00:45	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249003** Date Collected: 10/20/2015 11:45 Matrix: Ground Water
Sample ID: **MW-003R** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	5.0	2.3	SW846 8260B			10/27/15 00:45	CJG	A
Styrene	ND		ug/L	5.0	1.2	SW846 8260B			10/27/15 00:45	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 00:45	CJG	A
Tetrachloroethene	ND		ug/L	5.0	1.8	SW846 8260B			10/27/15 00:45	CJG	A
Toluene	10.2		ug/L	5.0	1.2	SW846 8260B			10/27/15 00:45	CJG	A
Total Xylenes	73.2		ug/L	15.0	3.3	SW846 8260B			10/27/15 00:45	CJG	A
1,1,1-Trichloroethane	ND		ug/L	5.0	1.1	SW846 8260B			10/27/15 00:45	CJG	A
1,1,2-Trichloroethane	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 00:45	CJG	A
Trichloroethene	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 00:45	CJG	A
Vinyl Chloride	ND		ug/L	5.0	1.5	SW846 8260B			10/27/15 00:45	CJG	A
o-Xylene	17.1		ug/L	5.0	1.7	SW846 8260B			10/27/15 00:45	CJG	A
mp-Xylene	56.1		ug/L	10.0	2.6	SW846 8260B			10/27/15 00:45	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.6		%	62 - 133	SW846 8260B			10/27/15 00:45	CJG	A
4-Bromofluorobenzene (S)	99.6		%	79 - 114	SW846 8260B			10/27/15 00:45	CJG	A
Dibromofluoromethane (S)	92.2		%	78 - 116	SW846 8260B			10/27/15 00:45	CJG	A
Toluene-d8 (S)	101		%	76 - 127	SW846 8260B			10/27/15 00:45	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249004** Date Collected: 10/20/2015 10:30 Matrix: Ground Water
Sample ID: **MW-007** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	29.4J	J	ug/L	50.0	15.5	SW846 8260B		10/27/15 01:05	CJG	A
tert-Amyl methyl ether	ND		ug/L	5.0	1.0	SW846 8260B		10/27/15 01:05	CJG	A
tert-Amyl Alcohol	91.2		ug/L	50.0	33.0	SW846 8260B		10/27/15 01:05	CJG	A
tert-Amyl Ethylether	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 01:05	CJG	A
Benzene	192		ug/L	5.0	1.2	SW846 8260B		10/27/15 01:05	CJG	A
Bromochloromethane	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 01:05	CJG	A
Bromodichloromethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 01:05	CJG	A
Bromoform	ND		ug/L	5.0	2.0	SW846 8260B		10/27/15 01:05	CJG	A
Bromomethane	3.8J	J	ug/L	5.0	2.0	SW846 8260B		10/27/15 01:05	CJG	A
2-Butanone	ND		ug/L	50.0	9.0	SW846 8260B		10/27/15 01:05	CJG	A
tert-Butyl Alcohol	30.5J	J	ug/L	50.0	11.0	SW846 8260B		10/27/15 01:05	CJG	A
Carbon Disulfide	ND		ug/L	5.0	1.2	SW846 8260B		10/27/15 01:05	CJG	A
Carbon Tetrachloride	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 01:05	CJG	A
Chlorobenzene	ND		ug/L	5.0	0.95	SW846 8260B		10/27/15 01:05	CJG	A
Chlorodibromomethane	ND		ug/L	5.0	2.3	SW846 8260B		10/27/15 01:05	CJG	A
Chloroethane	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 01:05	CJG	A
Chloroform	ND		ug/L	5.0	1.1	SW846 8260B		10/27/15 01:05	CJG	A
Chloromethane	12.5		ug/L	5.0	1.6	SW846 8260B		10/27/15 01:05	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	35.0	7.5	SW846 8260B		10/27/15 01:05	CJG	A
1,2-Dibromoethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 01:05	CJG	A
Dichlorodifluoromethane	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 01:05	CJG	A
1,1-Dichloroethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 01:05	CJG	A
1,2-Dichloroethane	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 01:05	CJG	A
1,1-Dichloroethene	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 01:05	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 01:05	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 01:05	CJG	A
Dichlorofluoromethane	ND		ug/L	5.0	1.9	SW846 8260B		10/27/15 01:05	CJG	A
1,2-Dichloropropane	ND		ug/L	5.0	1.2	SW846 8260B		10/27/15 01:05	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 01:05	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 01:05	CJG	A
Diisopropyl ether	5.1		ug/L	5.0	1.3	SW846 8260B		10/27/15 01:05	CJG	A
Ethyl tert-butyl ether	ND		ug/L	5.0	0.95	SW846 8260B		10/27/15 01:05	CJG	A
Ethylbenzene	218		ug/L	5.0	1.7	SW846 8260B		10/27/15 01:05	CJG	A
2-Hexanone	ND		ug/L	25.0	6.5	SW846 8260B		10/27/15 01:05	CJG	A
Methyl t-Butyl Ether	4.4J	J1	ug/L	5.0	1.7	SW846 8260B		10/27/15 01:05	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	25.0	7.5	SW846 8260B		10/27/15 01:05	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249004** Date Collected: 10/20/2015 10:30 Matrix: Ground Water
Sample ID: **MW-007** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	5.0	2.3	SW846 8260B			10/27/15 01:05	CJG	A
Styrene	1.6J	J	ug/L	5.0	1.2	SW846 8260B			10/27/15 01:05	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 01:05	CJG	A
Tetrachloroethene	ND		ug/L	5.0	1.8	SW846 8260B			10/27/15 01:05	CJG	A
Toluene	1120		ug/L	50.0	11.5	SW846 8260B			10/27/15 20:56	CJG	B
Total Xylenes	863		ug/L	15.0	3.3	SW846 8260B			10/27/15 01:05	CJG	A
1,1,1-Trichloroethane	ND		ug/L	5.0	1.1	SW846 8260B			10/27/15 01:05	CJG	A
1,1,2-Trichloroethane	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 01:05	CJG	A
Trichloroethene	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 01:05	CJG	A
Vinyl Chloride	ND		ug/L	5.0	1.5	SW846 8260B			10/27/15 01:05	CJG	A
o-Xylene	445		ug/L	5.0	1.7	SW846 8260B			10/27/15 01:05	CJG	A
mp-Xylene	418		ug/L	10.0	2.6	SW846 8260B			10/27/15 01:05	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.2		%	62 - 133	SW846 8260B			10/27/15 01:05	CJG	A
1,2-Dichloroethane-d4 (S)	94.5		%	62 - 133	SW846 8260B			10/27/15 20:56	CJG	B
4-Bromofluorobenzene (S)	98.9		%	79 - 114	SW846 8260B			10/27/15 20:56	CJG	B
4-Bromofluorobenzene (S)	99.9		%	79 - 114	SW846 8260B			10/27/15 01:05	CJG	A
Dibromofluoromethane (S)	92.1		%	78 - 116	SW846 8260B			10/27/15 01:05	CJG	A
Dibromofluoromethane (S)	90.8		%	78 - 116	SW846 8260B			10/27/15 20:56	CJG	B
Toluene-d8 (S)	101		%	76 - 127	SW846 8260B			10/27/15 20:56	CJG	B
Toluene-d8 (S)	96.2		%	76 - 127	SW846 8260B			10/27/15 01:05	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249005** Date Collected: 10/20/2015 13:40 Matrix: Ground Water
Sample ID: **MW-010** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	50.0	15.5	SW846 8260B		10/27/15 20:17	CJG	B
tert-Amyl methyl ether	ND		ug/L	5.0	1.0	SW846 8260B		10/27/15 20:17	CJG	B
tert-Amyl Alcohol	6500		ug/L	100	66.0	SW846 8260B		10/27/15 01:24	CJG	A
tert-Amyl Ethylether	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 20:17	CJG	B
Benzene	23.4		ug/L	5.0	1.2	SW846 8260B		10/27/15 20:17	CJG	B
Bromochloromethane	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 20:17	CJG	B
Bromodichloromethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 20:17	CJG	B
Bromoform	ND		ug/L	5.0	2.0	SW846 8260B		10/27/15 20:17	CJG	B
Bromomethane	3.0J	J	ug/L	5.0	2.0	SW846 8260B		10/27/15 20:17	CJG	B
2-Butanone	ND		ug/L	50.0	9.0	SW846 8260B		10/27/15 20:17	CJG	B
tert-Butyl Alcohol	1450		ug/L	50.0	11.0	SW846 8260B		10/27/15 20:17	CJG	B
Carbon Disulfide	ND		ug/L	5.0	1.2	SW846 8260B		10/27/15 20:17	CJG	B
Carbon Tetrachloride	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 20:17	CJG	B
Chlorobenzene	ND		ug/L	5.0	0.95	SW846 8260B		10/27/15 20:17	CJG	B
Chlorodibromomethane	ND		ug/L	5.0	2.3	SW846 8260B		10/27/15 20:17	CJG	B
Chloroethane	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 20:17	CJG	B
Chloroform	ND		ug/L	5.0	1.1	SW846 8260B		10/27/15 20:17	CJG	B
Chloromethane	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 20:17	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	35.0	7.5	SW846 8260B		10/27/15 20:17	CJG	B
1,2-Dibromoethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 20:17	CJG	B
Dichlorodifluoromethane	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 20:17	CJG	B
1,1-Dichloroethane	ND		ug/L	5.0	1.4	SW846 8260B		10/27/15 20:17	CJG	B
1,2-Dichloroethane	194		ug/L	5.0	1.6	SW846 8260B		10/27/15 20:17	CJG	B
1,1-Dichloroethene	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 20:17	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 20:17	CJG	B
trans-1,2-Dichloroethene	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 20:17	CJG	B
Dichlorofluoromethane	ND		ug/L	5.0	1.9	SW846 8260B		10/27/15 20:17	CJG	B
1,2-Dichloropropane	ND		ug/L	5.0	1.2	SW846 8260B		10/27/15 20:17	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	5.0	1.6	SW846 8260B		10/27/15 20:17	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 20:17	CJG	B
Diisopropyl ether	27.6		ug/L	5.0	1.3	SW846 8260B		10/27/15 20:17	CJG	B
Ethyl tert-butyl ether	ND		ug/L	5.0	0.95	SW846 8260B		10/27/15 20:17	CJG	B
Ethylbenzene	ND		ug/L	5.0	1.7	SW846 8260B		10/27/15 20:17	CJG	B
2-Hexanone	ND		ug/L	25.0	6.5	SW846 8260B		10/27/15 20:17	CJG	B
Methyl t-Butyl Ether	250		ug/L	5.0	1.7	SW846 8260B		10/27/15 20:17	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	25.0	7.5	SW846 8260B		10/27/15 20:17	CJG	B

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249005** Date Collected: 10/20/2015 13:40 Matrix: Ground Water
Sample ID: **MW-010** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	5.0	2.3	SW846 8260B			10/27/15 20:17	CJG	B
Styrene	ND		ug/L	5.0	1.2	SW846 8260B			10/27/15 20:17	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 20:17	CJG	B
Tetrachloroethene	ND		ug/L	5.0	1.8	SW846 8260B			10/27/15 20:17	CJG	B
Toluene	3.8J	J	ug/L	5.0	1.2	SW846 8260B			10/27/15 20:17	CJG	B
Total Xylenes	3.3J	J	ug/L	15.0	3.3	SW846 8260B			10/27/15 20:17	CJG	B
1,1,1-Trichloroethane	ND		ug/L	5.0	1.1	SW846 8260B			10/27/15 20:17	CJG	B
1,1,2-Trichloroethane	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 20:17	CJG	B
Trichloroethene	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 20:17	CJG	B
Vinyl Chloride	ND		ug/L	5.0	1.5	SW846 8260B			10/27/15 20:17	CJG	B
o-Xylene	ND		ug/L	5.0	1.7	SW846 8260B			10/27/15 20:17	CJG	B
mp-Xylene	3.3J	J	ug/L	10.0	2.6	SW846 8260B			10/27/15 20:17	CJG	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96		%	62 - 133	SW846 8260B			10/27/15 20:17	CJG	B
1,2-Dichloroethane-d4 (S)	99		%	62 - 133	SW846 8260B			10/27/15 01:24	CJG	A
4-Bromofluorobenzene (S)	101		%	79 - 114	SW846 8260B			10/27/15 20:17	CJG	B
4-Bromofluorobenzene (S)	99.1		%	79 - 114	SW846 8260B			10/27/15 01:24	CJG	A
Dibromofluoromethane (S)	91.1		%	78 - 116	SW846 8260B			10/27/15 20:17	CJG	B
Dibromofluoromethane (S)	92.9		%	78 - 116	SW846 8260B			10/27/15 01:24	CJG	A
Toluene-d8 (S)	99.3		%	76 - 127	SW846 8260B			10/27/15 01:24	CJG	A
Toluene-d8 (S)	97.6		%	76 - 127	SW846 8260B			10/27/15 20:17	CJG	B

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249006** Date Collected: 10/20/2015 14:15 Matrix: Ground Water
Sample ID: **MW-010D** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/27/15 19:58	CJG	B
tert-Amyl methyl ether	0.48J	J2	ug/L	1.0	0.20	SW846 8260B		10/27/15 19:58	CJG	B
tert-Amyl Alcohol	248		ug/L	10.0	6.6	SW846 8260B		10/27/15 19:58	CJG	B
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:58	CJG	B
Benzene	0.44J	J	ug/L	1.0	0.23	SW846 8260B		10/27/15 19:58	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:58	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 19:58	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 19:58	CJG	B
Bromomethane	0.59J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 19:58	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 19:58	CJG	B
tert-Butyl Alcohol	117		ug/L	10.0	2.2	SW846 8260B		10/27/15 19:58	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 19:58	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:58	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 19:58	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 19:58	CJG	B
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:58	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 19:58	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:58	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 19:58	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 19:58	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:58	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 19:58	CJG	B
1,2-Dichloroethane	12.9		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:58	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:58	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:58	CJG	B
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 19:58	CJG	B
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 19:58	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 19:58	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:58	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:58	CJG	B
Diisopropyl ether	4.3		ug/L	1.0	0.25	SW846 8260B		10/27/15 19:58	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 19:58	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/27/15 19:58	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 19:58	CJG	B
Methyl t-Butyl Ether	129		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:58	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 19:58	CJG	B

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249006** Date Collected: 10/20/2015 14:15 Matrix: Ground Water
Sample ID: **MW-010D** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 19:58	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 19:58	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 19:58	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 19:58	CJG	B
Toluene	0.24J	J	ug/L	1.0	0.23	SW846 8260B			10/27/15 19:58	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/27/15 19:58	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 19:58	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:58	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:58	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 19:58	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:58	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/27/15 19:58	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.7		%	62 - 133		SW846 8260B			10/27/15 19:58	CJG	B
4-Bromofluorobenzene (S)	95.9		%	79 - 114		SW846 8260B			10/27/15 19:58	CJG	B
Dibromofluoromethane (S)	90.1		%	78 - 116		SW846 8260B			10/27/15 19:58	CJG	B
Toluene-d8 (S)	98.1		%	76 - 127		SW846 8260B			10/27/15 19:58	CJG	B

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249007** Date Collected: 10/20/2015 14:50 Matrix: Ground Water
Sample ID: **MW-009** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/27/15 02:03	CJG	A
tert-Amyl methyl ether	ND	11	ug/L	1.0	0.20	SW846 8260B		10/27/15 02:03	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/27/15 02:03	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 02:03	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 02:03	CJG	A
Bromochloromethane	ND	45	ug/L	1.0	0.32	SW846 8260B		10/27/15 02:03	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 02:03	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 02:03	CJG	A
Bromomethane	0.69J	J12 131 4	ug/L	1.0	0.39	SW846 8260B		10/27/15 02:03	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 02:03	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/27/15 02:03	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 02:03	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 02:03	CJG	A
Chlorobenzene	ND	7	ug/L	1.0	0.19	SW846 8260B		10/27/15 02:03	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 02:03	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 02:03	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 02:03	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 02:03	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 02:03	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 02:03	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 02:03	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 02:03	CJG	A
1,2-Dichloroethane	3.1		ug/L	1.0	0.32	SW846 8260B		10/27/15 02:03	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 02:03	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 02:03	CJG	A
trans-1,2-Dichloroethene	ND	1	ug/L	1.0	0.26	SW846 8260B		10/27/15 02:03	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 02:03	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 02:03	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 02:03	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 02:03	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/27/15 02:03	CJG	A
Ethyl tert-butyl ether	ND	10	ug/L	1.0	0.19	SW846 8260B		10/27/15 02:03	CJG	A
Ethylbenzene	ND	8	ug/L	1.0	0.34	SW846 8260B		10/27/15 02:03	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 02:03	CJG	A
Methyl t-Butyl Ether	0.81J	J23	ug/L	1.0	0.33	SW846 8260B		10/27/15 02:03	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249007** Date Collected: 10/20/2015 14:50 Matrix: Ground Water
Sample ID: **MW-009** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B			10/27/15 02:03	CJG	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 02:03	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 02:03	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 02:03	CJG	A
Tetrachloroethene	ND	6	ug/L	1.0	0.35	SW846 8260B			10/27/15 02:03	CJG	A
Toluene	0.48J	J	ug/L	1.0	0.23	SW846 8260B			10/27/15 02:03	CJG	A
Total Xylenes	0.69J	J	ug/L	3.0	0.66	SW846 8260B			10/27/15 02:03	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 02:03	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 02:03	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 02:03	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 02:03	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 02:03	CJG	A
mp-Xylene	0.69J	J9	ug/L	2.0	0.52	SW846 8260B			10/27/15 02:03	CJG	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.1		%	62 - 133		SW846 8260B			10/27/15 02:03	CJG	A
4-Bromofluorobenzene (S)	98.7		%	79 - 114		SW846 8260B			10/27/15 02:03	CJG	A
Dibromofluoromethane (S)	91.2		%	78 - 116		SW846 8260B			10/27/15 02:03	CJG	A
Toluene-d8 (S)	101		%	76 - 127		SW846 8260B			10/27/15 02:03	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249008** Date Collected: 10/20/2015 15:25 Matrix: Ground Water
Sample ID: **MW-009D** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/27/15 02:22	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 02:22	CJG	A
tert-Amyl Alcohol	205		ug/L	10.0	6.6	SW846 8260B		10/27/15 02:22	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 02:22	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 02:22	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 02:22	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 02:22	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 02:22	CJG	A
Bromomethane	0.83J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 02:22	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 02:22	CJG	A
tert-Butyl Alcohol	5280		ug/L	200	44.0	SW846 8260B		10/27/15 21:16	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 02:22	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 02:22	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 02:22	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 02:22	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 02:22	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 02:22	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 02:22	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 02:22	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 02:22	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 02:22	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 02:22	CJG	A
1,2-Dichloroethane	28.3		ug/L	1.0	0.32	SW846 8260B		10/27/15 02:22	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 02:22	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 02:22	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 02:22	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 02:22	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 02:22	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 02:22	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 02:22	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/27/15 02:22	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 02:22	CJG	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/27/15 02:22	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 02:22	CJG	A
Methyl t-Butyl Ether	874		ug/L	20.0	6.6	SW846 8260B		10/27/15 21:16	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 02:22	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249008** Date Collected: 10/20/2015 15:25 Matrix: Ground Water
Sample ID: **MW-009D** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 02:22	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 02:22	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 02:22	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 02:22	CJG	A
Toluene	0.45J	J	ug/L	1.0	0.23	SW846 8260B			10/27/15 02:22	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/27/15 02:22	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 02:22	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 02:22	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 02:22	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 02:22	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 02:22	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/27/15 02:22	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.9		%	62 - 133	SW846 8260B			10/27/15 21:16	CJG	B
1,2-Dichloroethane-d4 (S)	97.9		%	62 - 133	SW846 8260B			10/27/15 02:22	CJG	A
4-Bromofluorobenzene (S)	97.8		%	79 - 114	SW846 8260B			10/27/15 02:22	CJG	A
4-Bromofluorobenzene (S)	97.3		%	79 - 114	SW846 8260B			10/27/15 21:16	CJG	B
Dibromofluoromethane (S)	92.2		%	78 - 116	SW846 8260B			10/27/15 02:22	CJG	A
Dibromofluoromethane (S)	91.3		%	78 - 116	SW846 8260B			10/27/15 21:16	CJG	B
Toluene-d8 (S)	99.7		%	76 - 127	SW846 8260B			10/27/15 02:22	CJG	A
Toluene-d8 (S)	105		%	76 - 127	SW846 8260B			10/27/15 21:16	CJG	B

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ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249009** Date Collected: 10/20/2015 10:11 Matrix: Ground Water
Sample ID: **FB-001** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	13.7		ug/L	10.0	3.1	SW846 8260B		10/26/15 22:29	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/26/15 22:29	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/26/15 22:29	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 22:29	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 22:29	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 22:29	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/26/15 22:29	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/26/15 22:29	CJG	A
Bromomethane	0.60J	J	ug/L	1.0	0.39	SW846 8260B		10/26/15 22:29	CJG	A
2-Butanone	10.2		ug/L	10.0	1.8	SW846 8260B		10/26/15 22:29	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/26/15 22:29	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 22:29	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 22:29	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 22:29	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/26/15 22:29	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 22:29	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/26/15 22:29	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 22:29	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/26/15 22:29	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 22:29	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 22:29	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 22:29	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 22:29	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 22:29	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 22:29	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/26/15 22:29	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/26/15 22:29	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/26/15 22:29	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 22:29	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 22:29	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/26/15 22:29	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 22:29	CJG	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/26/15 22:29	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/26/15 22:29	CJG	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 22:29	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/26/15 22:29	CJG	A

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
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

Lab ID: **2103249009** Date Collected: 10/20/2015 10:11 Matrix: Ground Water
Sample ID: **FB-001** Date Received: 10/21/2015 21:55

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/26/15 22:29	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/26/15 22:29	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/26/15 22:29	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/26/15 22:29	CJG	A
Toluene	0.25J	J	ug/L	1.0	0.23	SW846 8260B			10/26/15 22:29	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/26/15 22:29	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/26/15 22:29	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 22:29	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 22:29	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/26/15 22:29	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 22:29	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/26/15 22:29	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.7		%	62 - 133	SW846 8260B			10/26/15 22:29	CJG	A
4-Bromofluorobenzene (S)	98.2		%	79 - 114	SW846 8260B			10/26/15 22:29	CJG	A
Dibromofluoromethane (S)	92		%	78 - 116	SW846 8260B			10/26/15 22:29	CJG	A
Toluene-d8 (S)	102		%	76 - 127	SW846 8260B			10/26/15 22:29	CJG	A

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2103249001	1	MP-002	SW846 8260B	Methyl t-Butyl Ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 126 and the control limits were 69 to 115.				
2103249002	1	MW-003	SW846 8260B	Methyl t-Butyl Ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 126 and the control limits were 69 to 115.				
2103249003	1	MW-003R	SW846 8260B	Methyl t-Butyl Ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 126 and the control limits were 69 to 115.				
2103249003	2	MW-003R	SW846 8260B	tert-Amyl methyl ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 136 and the control limits were 75 to 121.				
2103249004	1	MW-007	SW846 8260B	Methyl t-Butyl Ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 126 and the control limits were 69 to 115.				
2103249006	2	MW-010D	SW846 8260B	tert-Amyl methyl ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 122 and the control limits were 75 to 121.				
2103249007	1	MW-009	SW846 8260B	trans-1,2-Dichloroethene
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 125 and the control limits were 71 to 122.				
2103249007	2	MW-009	SW846 8260B	Methyl t-Butyl Ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 126 and the control limits were 69 to 115.				
2103249007	3	MW-009	SW846 8260B	Methyl t-Butyl Ether
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 117 and the control limits were 69 to 115.				
2103249007	4	MW-009	SW846 8260B	Bromochloromethane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 119 and the control limits were 73 to 117.				
2103249007	5	MW-009	SW846 8260B	Bromochloromethane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 118 and the control limits were 73 to 117.				
2103249007	6	MW-009	SW846 8260B	Tetrachloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 127 and the control limits were 72 to 124.				
2103249007	7	MW-009	SW846 8260B	Chlorobenzene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorobenzene. The % Recovery was reported as 119 and the control limits were 85 to 117.				
2103249007	8	MW-009	SW846 8260B	Ethylbenzene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethylbenzene. The % Recovery was reported as 126 and the control limits were 80 to 124.				
2103249007	9	MW-009	SW846 8260B	mp-Xylene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte mp-Xylene. The % Recovery was reported as 129 and the control limits were 79 to 125.				
2103249007	10	MW-009	SW846 8260B	Ethyl tert-butyl ether
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 126 and the control limits were 75 to 123.				

ANALYTICAL RESULTS

Workorder: 2103249 2015-CALVERT CITGO/5977

2103249007	11	MW-009	SW846 8260B	tert-Amyl methyl ether

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 124 and the control limits were 75 to 121.

2103249007	12	MW-009	SW846 8260B	Bromomethane

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromomethane. The % Recovery was reported as 23.3 and the control limits were 45 to 148.

2103249007	13	MW-009	SW846 8260B	Bromomethane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Bromomethane. The % Recovery was reported as 36.6 and the control limits were 45 to 148.

2103249007	14	MW-009	SW846 8260B	Bromomethane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Bromomethane. The RPD was reported as 39.7 and the upper control limit is 26.

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

SJB

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

-2 1 0 3 2 4 9.

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11340

Project Name/#: Calvert Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@repsg.com

Fax? [ ] -Y No.:

***Container Type	VOA																						
***Container Size	40mL																						
*** Preservative	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	VOCs by 524.2 including fuel oxygenates	VOCs 8260 per J. Manuel 10/23/15															
							Enter Number of Containers Per Analysis																
1	MW-002		10/20/15	11:10	G	GW	3																
2	MW-003		10/20/15	12:20	G	GW	3																
3	MW-003R		10/20/15	11:45	G	GW	3																
4	MW-007		10/20/15	10:30	G	GW	3																
5	MW-010		10/20/15	13:40	G	GW	3																
6	MW-010D		10/20/15	14:15	G	GW	3																
7	MW-009		10/20/15	14:50	G	GW	3																
8	MW-009D		10/20/15	15:25	G	GW	3																

UMG 10/22/15 0044

Performed by: PS (Initials) (Completed by Sample Receiving)

Cooler Temp: 1

Therm. ID: 294

No. of Coolers:

Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
1	Y	Y	Y	Y	
2	N	N	N	N	N
3	Y	Y	Y	Y	Y

	Custody seals Present?	(if present) Seals intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?
1	Y	Y	Y	Y	Y
2	N	N	N	N	N
3	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Keith Tuttle REPSG	10/21/15	14:35	2 Ron Hanson	10.21	1435
3 Ron Hanson	10.21	1800	4 [signature]	10/21	1800
5 [signature]	10/21	2155	6 PS ALS	10/21	2155
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (new)

SDWA Forms? ⇨ yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ] Other

EDDs Required? [X] If yes, format type: EQUIS

⇨ Enter PWSID No.

DOD Criteria Required?

ALS 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 01-2013

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

SJD

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2

Courier:

Tracking #:

COC# 249

Co. Name: REPSG Inc

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11340

Project Name/#: Calvert Citgo / 5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] Y jmanuel@repsg.com

Fax? [ ] Y No.:

							***Container Type	VOA															
							***Container Size	40mL															
							*** Preservative	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		VOCs by 524.2 including fuel oxygenates																
							Enter Number of Containers Per Analysis																
1 FB-001		10/20/15	10:11	G	GW		3																
2																							
3																							
4																							
5																							
6																							
7																							
8																							

LMG 10/22/15 ad/4

Receipt Information (completed by Sample Receiving)

Performed by: MTL RS

Cooler Temp:

Therm. ID: 294

No. of Coolers:

Notes:

	N	N	N	N	Circle appropriate Y or N.
	Y	Y	Y	Y	
	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	
	N	N	N	N	N
	Y	Y	Y	Y	Y
	Custody seals Present?	(If present) Seals Intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Kenneth Jordan RPSG	10/21/15	14:32	2 [illegible]	10/21	1435
3 [illegible]	10/21	1800	4 [illegible]	10/21	1800
5 [illegible]	10/21	2155	6 [illegible] ALS	10/21	2155
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ]

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]

Other

EDDs Required? [ ] If yes, format type: EQUIS

DOD Criteria Required?

ALS 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 01-2013

Susan Scherer

From: James Manuel <JManuel@repsg.com>
Sent: Friday, October 23, 2015 1:39 PM
To: Susan Scherer; Paul Collier
Subject: RE: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

Good catch.
Turns out we wrote the wrong method on this and two other COCs for groundwater samples collected from this Site. Please continue to run the groundwater samples via SW846 and the drinking water samples via 524.2. If there is any question as to which is which, feel free to contact me. We just relinquished the third (of three) groundwater COC to the courier a few minutes ago, so that one will arrive today.

Thank you very much!!

Sincerely,

James Manuel
Environmental Risk Analyst
REPSG
React Environmental
Professional Services Group, Inc.
(215) 729-3220 x321 * (215) 779-3101 (m) * (215) 729-1557 (f)
P.O. Box 5377
6901 Kingsessing Ave., Suite 201
Philadelphia, PA 19142
www.repsg.com
REPSG on Facebook

From: Susan Scherer [mailto:Susan.Scherer@ALSGlobal.com]
Sent: Friday, October 23, 2015 1:19 PM
To: James Manuel <JManuel@repsg.com>; Paul Collier <Paul.Collier@ALSGlobal.com>
Subject: RE: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

Sure James. The GC/MS volatiles laboratory asked me to confirm the EPA 524.2 request for these samples. In the past, we have performed SW846 on these MW locations and there were significant detections required multiple dilutions. This will be challenging by the more sensitive EPA 524.2 method, which is geared toward the drinking water matrix. Please let me know if SW846 8260 would be OK for these samples.

Regards,

Take our short online customer survey for a chance to win a FREE iPad!

Susan Scherer

Project Manager
ALS Life Sciences | Environmental

www.alsglobal.com

From: James Manuel [mailto:JManuel@repsg.com]
Sent: Friday, October 23, 2015 11:17 AM
To: Paul Collier <Paul.Collier@ALSGlobal.com>; Susan Scherer <Susan.Scherer@ALSGlobal.com>
Subject: RE: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

Thank you both!

Sincerely,

James Manuel
Environmental Risk Analyst
REPSG
React Environmental
Professional Services Group, Inc.
(215) 729-3220 x321 * (215) 779-3101 (m) * (215) 729-1557 (f)
P.O. Box 5377
6901 Kingsessing Ave., Suite 201
Philadelphia, PA 19142
www.repsg.com
REPSG on Facebook

From: Paul Collier [mailto:Paul.Collier@ALSGlobal.com]
Sent: Friday, October 23, 2015 11:12 AM
To: Susan Scherer <Susan.Scherer@ALSGlobal.com>
Cc: James Manuel <JManuel@repsg.com>
Subject: RE: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

Thanks Sue!

From: Susan Scherer
Sent: Friday, October 23, 2015 10:51 AM
To: Paul Collier
Cc: jmanuel
Subject: RE: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

Hello Paul,
I am confirming the change was made to the sample ID per the email request to you from James Manuel.

Regards,

Take our short online customer survey for a chance to win a FREE iPad!

Susan Scherer

Project Manager
ALS Life Sciences | Environmental

www.alsglobal.com

From: Paul Collier
Sent: Friday, October 23, 2015 10:29 AM
To: Susan Scherer <Susan.Scherer@ALSGlobal.com>
Cc: jmanuel <JManuel@repsg.com>
Subject: Fwd: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

Hello Sue,

Would you be able to assist James with the requested change outlined below?

Regards,

Paul M. Collier
Technical Sales Representative
ALS Environmental

610.392.6042 (Mobile)

Sent from my iPhone

Begin forwarded message:

> **From:** "James Manuel" <JManuel@repsg.com>
> **To:** "Paul Collier" <Paul.Collier@ALSGlobal.com>
> **Subject: FW: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab**
>
> Hello Paul,
> We noticed an error on a sample name on a COC and the bottleware from samples collected on 10/20/2015. The revised COC is attached. The first sample on the COC was incorrectly listed as "MW-002" where it should have been listed as "MP-002." If that can be corrected before the results are finalized, that would be much appreciated.
> Let me know if there are any questions.
>
> Thank you very much. Have a great weekend!
> Sincerely,
> James Manuel
> Environmental Risk Analyst
> REPSG
> React Environmental
> Professional Services Group, Inc.
> (215) 729-3220 x321 * (215) 779-3101 (m) * (215) 729-1557 (f)
> P.O. Box 5377
> 6901 Kingsessing Ave., Suite 201
> Philadelphia, PA 19142
> www.repsg.com<http://www.repsg.com>
> [cid:image001.gif@01CF289C.9DD49E40] REPSG on
> Facebook<blocked::http://www.facebook.com/pages/Philadelphia-PA/REPSG-

Inc/136865840439>

From: Suzanne Shourds
Sent: Friday, October 23, 2015 10:05 AM
To: James Manuel <JManuel@repsg.com>
Cc: Michele Jordan <MJordan@repsg.com>; James Arbuckle <JArbuckle@repsg.com>; Kyle Swartzwelder <Kswartzwelder@repsg.com>; Brenda MacPhail <BMacphail@repsg.com>; Garth Mahosky <GMahosky@repsg.com>; Cole Allen <CAllen@repsg.com>
Subject: 5977 - Calvert Citgo Error on Chain/Bottleware for correction at lab

James – As discussed, there was an error on Tuesday's chain wherein sample MP-002 was incorrectly labeled as MW-002. I've corrected the chain (attached). Can you please advise the lab as to the error so that they report this sample properly on the results package? Thanks!

Regards,

Suzanne Shourds
Project Manager

REPSG
React Environmental
Professional Services Group, Inc.

6901 Kingsessing Avenue, Suite 201
P.O. Box 5377
Philadelphia, PA 19142-0377
Phone: 215-729-3220 Ext. 378
Cell: 267-688-7311
Fax: 215-729-1557
Email: sshourds@repsg.com<mailto:sshourds@repsg.com>
Website: http://www.repsg.com<http://www.repsg.com/>
Facebook<http://www.facebook.com/pages/Philadelphia-PA/REPSG-Inc/136865840439?ref=ts>, Twitter<https://twitter.com/repsginc>, and LinkedIn<http://www.linkedin.com/company/react-environmental-professional-services-group-inc-repsg->

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P Please consider the environment before printing this email

ALS Group: Click here<https://www.mailcontrol.com/sr/MZbqvYs5QwJvpeaetUwhCQ== to report this email as spam.

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

COC #

Co. Name: EPSG Inc.

Contact (Report to): James Manuel

Phone: 215-229-3220

Address: 6501 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11340

Project Name/#: Colver Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? Y -Y jmanuel@epsg.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	VOCs by 5249.2 including fuel oxygenates
1 MW-002		10/20/15	11:10	G	GW	3
2 MW-003		10/20/15	12:20	G	GW	3
3 MW-003R		10/20/15	11:45	G	GW	3
4 MW-007		10/20/15	10:30	G	GW	3
5 MW-010		10/20/15	13:40	G	GW	3
6 MW-010D		10/20/15	14:15	G	GW	3
7 MW-009		10/20/15	14:50	G	GW	3
8 MW-009D		10/20/15	15:25	G	GW	3

***Container Type: VOA; ***Container Size: 40-L; ***Preservative: HCl

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)

Performed by: P.SELLERS

Cooler Temp:

Therm. ID:

No. of Cooters:

Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	N	N	N	N	
	Y	Y	Y	Y	
	N	N	N	N	N
	Y	Y	Y	Y	Y

	Custody seals Present?	(if present) Seals Intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?
	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 C.H. Ind. Hub	10/21	14:[illegible]	2 Tom Hongol	10-21	1435
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

SDWA Format? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected in? MD [X] NJ [ ] NY [ ] PA [ ]

Other

EDDs Required? Y If yes, format type: EQUIS

DQO Criteria Required?

ALS FIELD SERVICES: [X] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* 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

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 01-2013

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-929-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11340

Project Name/#: Calvert Cliffs / 5971

ALS Quote #:

TAT: Normal-Standard TAT is 10-12 business days. Rush-Subject to ALS approval and surcharges.

Date Required:

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	VOCs by 524.2 including fuel oxygenates									
	***Container Type						VOA									
	***Container Size						40mL									
	Preservative						HCl									
1	FB 001		10/20/15	10:11	G	GW	3									
2																
3																
4																
5																
6																
7																
8																

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

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): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Michele Jordan REPSG	10/20/15	14:32	2 Ron Hoagel	10/21	1434
3			4		
5			6		
7			8		
9			10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full

SDWA Forms? ⇨ yes

State Samples Collected In? MD; NJ; NY; PA

EDDs Required? Y If yes, format type: EQuIS

Other

DOD Criteria Required?

ALS 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

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.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 29, 2015

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2103548**
Purchase Order:	**11341**	Workorder ID:	**2015-CALVERT CITGO/5977**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Thursday, October 22, 2015.

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 Ms. Susan J Scherer (Project Coordinator) 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 laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. S Shourds , Mr. John Filoon

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2103548001	MW-001	Ground Water	10/21/2015 13:00	10/22/2015 20:07	Collected by Client
2103548002	MW-001R	Ground Water	10/21/2015 12:30	10/22/2015 20:07	Collected by Client
2103548003	MW-005	Ground Water	10/21/2015 11:50	10/22/2015 20:07	Collected by Client
2103548004	MW-005R	Ground Water	10/21/2015 11:00	10/22/2015 20:07	Collected by Client
2103548005	MW-006	Ground Water	10/21/2015 13:30	10/22/2015 20:07	Collected by Client
2103548006	FB-002	Ground Water	10/21/2015 12:12	10/22/2015 20:07	Collected by Client
2103548007	DUP-001	Ground Water	10/21/2015 00:00	10/22/2015 20:07	Collected by Client
2103548008	TB-001	Ground Water	10/20/2015 00:00	10/22/2015 20:07	Collected by Client
2103548009	MP-001	Ground Water	10/21/2015 10:40	10/22/2015 20:07	Collected by Client

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SAMPLE SUMMARY

Workorder: 2103548 2015-CALVERT CITGO/5977

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 preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 2103548 2015-CALVERT CITGO/5977

Sample Comments

Lab ID: 2103548003 **Sample ID:** MW-005 **Sample Type:** SAMPLE

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Lab ID: 2103548009 **Sample ID:** MP-001 **Sample Type:** SAMPLE

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548001** Date Collected: 10/21/2015 13:00 Matrix: Ground Water
Sample ID: **MW-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	12.1		ug/L	10.0	3.1	SW846 8260B		10/27/15 21:35	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 21:35	CJG	A
tert-Amyl Alcohol	833		ug/L	500	330	SW846 8260B		10/28/15 15:39	DD	C
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 21:35	CJG	A
Benzene	2390		ug/L	50.0	11.5	SW846 8260B		10/28/15 15:39	DD	C
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 21:35	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 21:35	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 21:35	CJG	A
Bromomethane	0.41J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 21:35	CJG	A
2-Butanone	7.4J	J	ug/L	10.0	1.8	SW846 8260B		10/27/15 21:35	CJG	A
tert-Butyl Alcohol	135		ug/L	10.0	2.2	SW846 8260B		10/27/15 21:35	CJG	A
Carbon Disulfide	0.29J	J	ug/L	1.0	0.23	SW846 8260B		10/27/15 21:35	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 21:35	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 21:35	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 21:35	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 21:35	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 21:35	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 21:35	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 21:35	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 21:35	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 21:35	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 21:35	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 21:35	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 21:35	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 21:35	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 21:35	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 21:35	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 21:35	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 21:35	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 21:35	CJG	A
Diisopropyl ether	3.6		ug/L	1.0	0.25	SW846 8260B		10/27/15 21:35	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 21:35	CJG	A
Ethylbenzene	217		ug/L	50.0	17.0	SW846 8260B		10/28/15 15:39	DD	C
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 21:35	CJG	A
Methyl t-Butyl Ether	20.1		ug/L	1.0	0.33	SW846 8260B		10/27/15 21:35	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 21:35	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548001** Date Collected: 10/21/2015 13:00 Matrix: Ground Water
Sample ID: **MW-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 21:35	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 21:35	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 21:35	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 21:35	CJG	A
Toluene	1790		ug/L	50.0	11.5	SW846 8260B			10/28/15 15:39	DD	C
Total Xylenes	1120		ug/L	150	33.0	SW846 8260B			10/28/15 15:39	DD	C
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 21:35	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 21:35	CJG	A
Trichloroethene	1.1		ug/L	1.0	0.33	SW846 8260B			10/27/15 21:35	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 21:35	CJG	A
o-Xylene	175		ug/L	50.0	16.5	SW846 8260B			10/28/15 15:39	DD	C
mp-Xylene	942		ug/L	100	26.0	SW846 8260B			10/28/15 15:39	DD	C

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98		%	62 - 133	SW846 8260B			10/27/15 21:35	CJG	A
1,2-Dichloroethane-d4 (S)	97.2		%	62 - 133	SW846 8260B			10/28/15 15:39	DD	C
4-Bromofluorobenzene (S)	100		%	79 - 114	SW846 8260B			10/27/15 21:35	CJG	A
4-Bromofluorobenzene (S)	98.2		%	79 - 114	SW846 8260B			10/28/15 15:39	DD	C
Dibromofluoromethane (S)	93.4		%	78 - 116	SW846 8260B			10/28/15 15:39	DD	C
Dibromofluoromethane (S)	90.2		%	78 - 116	SW846 8260B			10/27/15 21:35	CJG	A
Toluene-d8 (S)	94.8		%	76 - 127	SW846 8260B			10/27/15 21:35	CJG	A
Toluene-d8 (S)	101		%	76 - 127	SW846 8260B			10/28/15 15:39	DD	C

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548002** Date Collected: 10/21/2015 12:30 Matrix: Ground Water
Sample ID: **MW-001R** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/27/15 21:54	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 21:54	CJG	A
tert-Amyl Alcohol	1830		ug/L	50.0	33.0	SW846 8260B		10/28/15 15:00	DD	C
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 21:54	CJG	A
Benzene	56.5		ug/L	1.0	0.23	SW846 8260B		10/27/15 21:54	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 21:54	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 21:54	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 21:54	CJG	A
Bromomethane	0.60J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 21:54	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 21:54	CJG	A
tert-Butyl Alcohol	1200		ug/L	50.0	11.0	SW846 8260B		10/28/15 15:00	DD	C
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 21:54	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 21:54	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 21:54	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 21:54	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 21:54	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 21:54	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 21:54	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 21:54	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 21:54	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 21:54	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 21:54	CJG	A
1,2-Dichloroethane	113		ug/L	1.0	0.32	SW846 8260B		10/27/15 21:54	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 21:54	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 21:54	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 21:54	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 21:54	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 21:54	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 21:54	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 21:54	CJG	A
Diisopropyl ether	24.1		ug/L	1.0	0.25	SW846 8260B		10/27/15 21:54	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 21:54	CJG	A
Ethylbenzene	8.8		ug/L	1.0	0.34	SW846 8260B		10/27/15 21:54	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 21:54	CJG	A
Methyl t-Butyl Ether	124		ug/L	1.0	0.33	SW846 8260B		10/27/15 21:54	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 21:54	CJG	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548002** Date Collected: 10/21/2015 12:30 Matrix: Ground Water
Sample ID: **MW-001R** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 21:54	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 21:54	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 21:54	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 21:54	CJG	A
Toluene	31.6		ug/L	1.0	0.23	SW846 8260B			10/27/15 21:54	CJG	A
Total Xylenes	39.9		ug/L	3.0	0.66	SW846 8260B			10/27/15 21:54	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 21:54	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 21:54	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 21:54	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 21:54	CJG	A
o-Xylene	9.8		ug/L	1.0	0.33	SW846 8260B			10/27/15 21:54	CJG	A
mp-Xylene	30.1		ug/L	2.0	0.52	SW846 8260B			10/27/15 21:54	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98		%	62 - 133	SW846 8260B			10/28/15 15:00	DD	C
1,2-Dichloroethane-d4 (S)	100		%	62 - 133	SW846 8260B			10/27/15 21:54	CJG	A
4-Bromofluorobenzene (S)	102		%	79 - 114	SW846 8260B			10/28/15 15:00	DD	C
4-Bromofluorobenzene (S)	100		%	79 - 114	SW846 8260B			10/27/15 21:54	CJG	A
Dibromofluoromethane (S)	91.5		%	78 - 116	SW846 8260B			10/28/15 15:00	DD	C
Dibromofluoromethane (S)	92.5		%	78 - 116	SW846 8260B			10/27/15 21:54	CJG	A
Toluene-d8 (S)	102		%	76 - 127	SW846 8260B			10/28/15 15:00	DD	C
Toluene-d8 (S)	97.7		%	76 - 127	SW846 8260B			10/27/15 21:54	CJG	A

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548003** Date Collected: 10/21/2015 11:50 Matrix: Ground Water
Sample ID: **MW-005** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	1000	310	SW846 8260B		10/27/15 22:13	CJG	A
tert-Amyl methyl ether	ND		ug/L	100	20.0	SW846 8260B		10/27/15 22:13	CJG	A
tert-Amyl Alcohol	2790		ug/L	1000	660	SW846 8260B		10/27/15 22:13	CJG	A
tert-Amyl Ethylether	ND		ug/L	100	29.0	SW846 8260B		10/27/15 22:13	CJG	A
Benzene	422		ug/L	100	23.0	SW846 8260B		10/27/15 22:13	CJG	A
Bromochloromethane	ND		ug/L	100	32.0	SW846 8260B		10/27/15 22:13	CJG	A
Bromodichloromethane	ND		ug/L	100	27.0	SW846 8260B		10/27/15 22:13	CJG	A
Bromoform	ND		ug/L	100	40.0	SW846 8260B		10/27/15 22:13	CJG	A
Bromomethane	58.5J	J	ug/L	100	39.0	SW846 8260B		10/27/15 22:13	CJG	A
2-Butanone	ND		ug/L	1000	180	SW846 8260B		10/27/15 22:13	CJG	A
tert-Butyl Alcohol	1800		ug/L	1000	220	SW846 8260B		10/27/15 22:13	CJG	A
Carbon Disulfide	ND		ug/L	100	23.0	SW846 8260B		10/27/15 22:13	CJG	A
Carbon Tetrachloride	ND		ug/L	100	31.0	SW846 8260B		10/27/15 22:13	CJG	A
Chlorobenzene	ND		ug/L	100	19.0	SW846 8260B		10/27/15 22:13	CJG	A
Chlorodibromomethane	ND		ug/L	100	45.0	SW846 8260B		10/27/15 22:13	CJG	A
Chloroethane	ND		ug/L	100	33.0	SW846 8260B		10/27/15 22:13	CJG	A
Chloroform	ND		ug/L	100	21.0	SW846 8260B		10/27/15 22:13	CJG	A
Chloromethane	ND		ug/L	100	31.0	SW846 8260B		10/27/15 22:13	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	700	150	SW846 8260B		10/27/15 22:13	CJG	A
1,2-Dibromoethane	ND		ug/L	100	28.0	SW846 8260B		10/27/15 22:13	CJG	A
Dichlorodifluoromethane	ND		ug/L	100	33.0	SW846 8260B		10/27/15 22:13	CJG	A
1,1-Dichloroethane	ND		ug/L	100	28.0	SW846 8260B		10/27/15 22:13	CJG	A
1,2-Dichloroethane	ND		ug/L	100	32.0	SW846 8260B		10/27/15 22:13	CJG	A
1,1-Dichloroethene	ND		ug/L	100	29.0	SW846 8260B		10/27/15 22:13	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	100	32.0	SW846 8260B		10/27/15 22:13	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	100	26.0	SW846 8260B		10/27/15 22:13	CJG	A
Dichlorofluoromethane	ND		ug/L	100	37.0	SW846 8260B		10/27/15 22:13	CJG	A
1,2-Dichloropropane	ND		ug/L	100	24.0	SW846 8260B		10/27/15 22:13	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	100	31.0	SW846 8260B		10/27/15 22:13	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	100	29.0	SW846 8260B		10/27/15 22:13	CJG	A
Diisopropyl ether	42.8J	J	ug/L	100	25.0	SW846 8260B		10/27/15 22:13	CJG	A
Ethyl tert-butyl ether	ND		ug/L	100	19.0	SW846 8260B		10/27/15 22:13	CJG	A
Ethylbenzene	2640		ug/L	100	34.0	SW846 8260B		10/27/15 22:13	CJG	A
2-Hexanone	ND		ug/L	500	130	SW846 8260B		10/27/15 22:13	CJG	A
Methyl t-Butyl Ether	80.4J	J	ug/L	100	33.0	SW846 8260B		10/27/15 22:13	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	500	150	SW846 8260B		10/27/15 22:13	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548003** Date Collected: 10/21/2015 11:50 Matrix: Ground Water
Sample ID: **MW-005** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	100	45.0	SW846 8260B			10/27/15 22:13	CJG	A
Styrene	ND		ug/L	100	24.0	SW846 8260B			10/27/15 22:13	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	100	34.0	SW846 8260B			10/27/15 22:13	CJG	A
Tetrachloroethene	ND		ug/L	100	35.0	SW846 8260B			10/27/15 22:13	CJG	A
Toluene	17700		ug/L	100	23.0	SW846 8260B			10/27/15 22:13	CJG	A
Total Xylenes	13700		ug/L	300	66.0	SW846 8260B			10/27/15 22:13	CJG	A
1,1,1-Trichloroethane	ND		ug/L	100	22.0	SW846 8260B			10/27/15 22:13	CJG	A
1,1,2-Trichloroethane	ND		ug/L	100	33.0	SW846 8260B			10/27/15 22:13	CJG	A
Trichloroethene	ND		ug/L	100	33.0	SW846 8260B			10/27/15 22:13	CJG	A
Vinyl Chloride	ND		ug/L	100	30.0	SW846 8260B			10/27/15 22:13	CJG	A
o-Xylene	3820		ug/L	100	33.0	SW846 8260B			10/27/15 22:13	CJG	A
mp-Xylene	9840		ug/L	200	52.0	SW846 8260B			10/27/15 22:13	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.8		%	62 - 133	SW846 8260B			10/27/15 22:13	CJG	A
4-Bromofluorobenzene (S)	98.5		%	79 - 114	SW846 8260B			10/27/15 22:13	CJG	A
Dibromofluoromethane (S)	92.3		%	78 - 116	SW846 8260B			10/27/15 22:13	CJG	A
Toluene-d8 (S)	99.2		%	76 - 127	SW846 8260B			10/27/15 22:13	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548004** Date Collected: 10/21/2015 11:00 Matrix: Ground Water
Sample ID: **MW-005R** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	1000	310	SW846 8260B		10/28/15 15:58	DD	C
tert-Amyl methyl ether	ND		ug/L	100	20.0	SW846 8260B		10/28/15 15:58	DD	C
tert-Amyl Alcohol	781J	J	ug/L	1000	660	SW846 8260B		10/28/15 15:58	DD	C
tert-Amyl Ethylether	ND		ug/L	100	29.0	SW846 8260B		10/28/15 15:58	DD	C
Benzene	1600		ug/L	100	23.0	SW846 8260B		10/28/15 15:58	DD	C
Bromochloromethane	ND		ug/L	100	32.0	SW846 8260B		10/28/15 15:58	DD	C
Bromodichloromethane	ND		ug/L	100	27.0	SW846 8260B		10/28/15 15:58	DD	C
Bromoform	ND		ug/L	100	40.0	SW846 8260B		10/28/15 15:58	DD	C
Bromomethane	44.2J	J	ug/L	100	39.0	SW846 8260B		10/28/15 15:58	DD	C
2-Butanone	ND		ug/L	1000	180	SW846 8260B		10/28/15 15:58	DD	C
tert-Butyl Alcohol	366J	J	ug/L	1000	220	SW846 8260B		10/28/15 15:58	DD	C
Carbon Disulfide	ND		ug/L	100	23.0	SW846 8260B		10/28/15 15:58	DD	C
Carbon Tetrachloride	ND		ug/L	100	31.0	SW846 8260B		10/28/15 15:58	DD	C
Chlorobenzene	ND		ug/L	100	19.0	SW846 8260B		10/28/15 15:58	DD	C
Chlorodibromomethane	ND		ug/L	100	45.0	SW846 8260B		10/28/15 15:58	DD	C
Chloroethane	ND		ug/L	100	33.0	SW846 8260B		10/28/15 15:58	DD	C
Chloroform	ND		ug/L	100	21.0	SW846 8260B		10/28/15 15:58	DD	C
Chloromethane	ND		ug/L	100	31.0	SW846 8260B		10/28/15 15:58	DD	C
1,2-Dibromo-3-chloropropane	ND		ug/L	700	150	SW846 8260B		10/28/15 15:58	DD	C
1,2-Dibromoethane	ND		ug/L	100	28.0	SW846 8260B		10/28/15 15:58	DD	C
Dichlorodifluoromethane	ND		ug/L	100	33.0	SW846 8260B		10/28/15 15:58	DD	C
1,1-Dichloroethane	ND		ug/L	100	28.0	SW846 8260B		10/28/15 15:58	DD	C
1,2-Dichloroethane	ND		ug/L	100	32.0	SW846 8260B		10/28/15 15:58	DD	C
1,1-Dichloroethene	ND		ug/L	100	29.0	SW846 8260B		10/28/15 15:58	DD	C
cis-1,2-Dichloroethene	ND		ug/L	100	32.0	SW846 8260B		10/28/15 15:58	DD	C
trans-1,2-Dichloroethene	ND		ug/L	100	26.0	SW846 8260B		10/28/15 15:58	DD	C
Dichlorofluoromethane	ND		ug/L	100	37.0	SW846 8260B		10/28/15 15:58	DD	C
1,2-Dichloropropane	ND		ug/L	100	24.0	SW846 8260B		10/28/15 15:58	DD	C
cis-1,3-Dichloropropene	ND		ug/L	100	31.0	SW846 8260B		10/28/15 15:58	DD	C
trans-1,3-Dichloropropene	ND		ug/L	100	29.0	SW846 8260B		10/28/15 15:58	DD	C
Diisopropyl ether	ND		ug/L	100	25.0	SW846 8260B		10/28/15 15:58	DD	C
Ethyl tert-butyl ether	ND		ug/L	100	19.0	SW846 8260B		10/28/15 15:58	DD	C
Ethylbenzene	598		ug/L	100	34.0	SW846 8260B		10/28/15 15:58	DD	C
2-Hexanone	ND		ug/L	500	130	SW846 8260B		10/28/15 15:58	DD	C
Methyl t-Butyl Ether	ND		ug/L	100	33.0	SW846 8260B		10/28/15 15:58	DD	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	500	150	SW846 8260B		10/28/15 15:58	DD	C

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548004** Date Collected: 10/21/2015 11:00 Matrix: Ground Water
Sample ID: **MW-005R** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	100	45.0	SW846 8260B			10/28/15 15:58	DD	C
Styrene	ND		ug/L	100	24.0	SW846 8260B			10/28/15 15:58	DD	C
1,1,2,2-Tetrachloroethane	ND		ug/L	100	34.0	SW846 8260B			10/28/15 15:58	DD	C
Tetrachloroethene	ND		ug/L	100	35.0	SW846 8260B			10/28/15 15:58	DD	C
Toluene	4760		ug/L	100	23.0	SW846 8260B			10/28/15 15:58	DD	C
Total Xylenes	3710		ug/L	300	66.0	SW846 8260B			10/28/15 15:58	DD	C
1,1,1-Trichloroethane	ND		ug/L	100	22.0	SW846 8260B			10/28/15 15:58	DD	C
1,1,2-Trichloroethane	ND		ug/L	100	33.0	SW846 8260B			10/28/15 15:58	DD	C
Trichloroethene	ND		ug/L	100	33.0	SW846 8260B			10/28/15 15:58	DD	C
Vinyl Chloride	ND		ug/L	100	30.0	SW846 8260B			10/28/15 15:58	DD	C
o-Xylene	1120		ug/L	100	33.0	SW846 8260B			10/28/15 15:58	DD	C
mp-Xylene	2600		ug/L	200	52.0	SW846 8260B			10/28/15 15:58	DD	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98		%	62 - 133		SW846 8260B			10/28/15 15:58	DD	C
4-Bromofluorobenzene (S)	97.6		%	79 - 114		SW846 8260B			10/28/15 15:58	DD	C
Dibromofluoromethane (S)	94		%	78 - 116		SW846 8260B			10/28/15 15:58	DD	C
Toluene-d8 (S)	98.6		%	76 - 127		SW846 8260B			10/28/15 15:58	DD	C

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548005** Date Collected: 10/21/2015 13:30 Matrix: Ground Water
Sample ID: **MW-006** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/27/15 22:52	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 22:52	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/27/15 22:52	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 22:52	CJG	A
Benzene	10.2		ug/L	1.0	0.23	SW846 8260B		10/27/15 22:52	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 22:52	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 22:52	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 22:52	CJG	A
Bromomethane	0.46J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 22:52	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 22:52	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/27/15 22:52	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 22:52	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 22:52	CJG	A
Chlorobenzene	2.1		ug/L	1.0	0.19	SW846 8260B		10/27/15 22:52	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 22:52	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 22:52	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 22:52	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 22:52	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 22:52	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 22:52	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 22:52	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 22:52	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 22:52	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 22:52	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 22:52	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 22:52	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 22:52	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 22:52	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 22:52	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 22:52	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/27/15 22:52	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 22:52	CJG	A
Ethylbenzene	7.0		ug/L	1.0	0.34	SW846 8260B		10/27/15 22:52	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 22:52	CJG	A
Methyl t-Butyl Ether	0.78J	J	ug/L	1.0	0.33	SW846 8260B		10/27/15 22:52	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 22:52	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548005** Date Collected: 10/21/2015 13:30 Matrix: Ground Water
Sample ID: **MW-006** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 22:52	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 22:52	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 22:52	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 22:52	CJG	A
Toluene	43.2		ug/L	1.0	0.23	SW846 8260B			10/27/15 22:52	CJG	A
Total Xylenes	43.4		ug/L	3.0	0.66	SW846 8260B			10/27/15 22:52	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 22:52	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 22:52	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 22:52	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 22:52	CJG	A
o-Xylene	11.3		ug/L	1.0	0.33	SW846 8260B			10/27/15 22:52	CJG	A
mp-Xylene	32.1		ug/L	2.0	0.52	SW846 8260B			10/27/15 22:52	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.9		%	62 - 133	SW846 8260B			10/27/15 22:52	CJG	A
4-Bromofluorobenzene (S)	98.8		%	79 - 114	SW846 8260B			10/27/15 22:52	CJG	A
Dibromofluoromethane (S)	92.3		%	78 - 116	SW846 8260B			10/27/15 22:52	CJG	A
Toluene-d8 (S)	99.6		%	76 - 127	SW846 8260B			10/27/15 22:52	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548006** Date Collected: 10/21/2015 12:12 Matrix: Ground Water
Sample ID: **FB-002** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	9.7J	J	ug/L	10.0	3.1	SW846 8260B		10/27/15 19:38	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 19:38	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/27/15 19:38	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:38	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 19:38	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:38	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 19:38	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 19:38	CJG	A
Bromomethane	0.60J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 19:38	CJG	A
2-Butanone	10J	J	ug/L	10.0	1.8	SW846 8260B		10/27/15 19:38	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/27/15 19:38	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 19:38	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:38	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 19:38	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 19:38	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:38	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 19:38	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:38	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 19:38	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 19:38	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:38	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 19:38	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:38	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:38	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:38	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 19:38	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 19:38	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 19:38	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:38	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:38	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/27/15 19:38	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 19:38	CJG	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/27/15 19:38	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 19:38	CJG	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:38	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 19:38	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548006** Date Collected: 10/21/2015 12:12 Matrix: Ground Water
Sample ID: **FB-002** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 19:38	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 19:38	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 19:38	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 19:38	CJG	A
Toluene	0.25J	J	ug/L	1.0	0.23	SW846 8260B			10/27/15 19:38	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/27/15 19:38	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 19:38	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:38	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:38	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 19:38	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:38	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/27/15 19:38	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.4		%	62 - 133	SW846 8260B			10/27/15 19:38	CJG	A
4-Bromofluorobenzene (S)	98.6		%	79 - 114	SW846 8260B			10/27/15 19:38	CJG	A
Dibromofluoromethane (S)	93		%	78 - 116	SW846 8260B			10/27/15 19:38	CJG	A
Toluene-d8 (S)	106		%	76 - 127	SW846 8260B			10/27/15 19:38	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548007** Date Collected: 10/21/2015 00:00 Matrix: Ground Water
Sample ID: **DUP-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/27/15 23:12	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 23:12	CJG	A
tert-Amyl Alcohol	1600		ug/L	100	66.0	SW846 8260B		10/28/15 15:19	DD	C
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 23:12	CJG	A
Benzene	66.7		ug/L	1.0	0.23	SW846 8260B		10/27/15 23:12	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 23:12	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 23:12	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 23:12	CJG	A
Bromomethane	0.43J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 23:12	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/27/15 23:12	CJG	A
tert-Butyl Alcohol	844		ug/L	10.0	2.2	SW846 8260B		10/27/15 23:12	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 23:12	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 23:12	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 23:12	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 23:12	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 23:12	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 23:12	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 23:12	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 23:12	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 23:12	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 23:12	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 23:12	CJG	A
1,2-Dichloroethane	103		ug/L	1.0	0.32	SW846 8260B		10/27/15 23:12	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 23:12	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 23:12	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 23:12	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 23:12	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 23:12	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 23:12	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 23:12	CJG	A
Diisopropyl ether	20.7		ug/L	1.0	0.25	SW846 8260B		10/27/15 23:12	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 23:12	CJG	A
Ethylbenzene	9.7		ug/L	1.0	0.34	SW846 8260B		10/27/15 23:12	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 23:12	CJG	A
Methyl t-Butyl Ether	95.8		ug/L	1.0	0.33	SW846 8260B		10/27/15 23:12	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 23:12	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548007** Date Collected: 10/21/2015 00:00 Matrix: Ground Water
Sample ID: **DUP-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/27/15 23:12	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 23:12	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 23:12	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 23:12	CJG	A
Toluene	30.5		ug/L	1.0	0.23	SW846 8260B			10/27/15 23:12	CJG	A
Total Xylenes	42.2		ug/L	3.0	0.66	SW846 8260B			10/27/15 23:12	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 23:12	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 23:12	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 23:12	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 23:12	CJG	A
o-Xylene	10.8		ug/L	1.0	0.33	SW846 8260B			10/27/15 23:12	CJG	A
mp-Xylene	31.4		ug/L	2.0	0.52	SW846 8260B			10/27/15 23:12	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.8		%	62 - 133	SW846 8260B			10/28/15 15:19	DD	C
1,2-Dichloroethane-d4 (S)	101		%	62 - 133	SW846 8260B			10/27/15 23:12	CJG	A
4-Bromofluorobenzene (S)	100		%	79 - 114	SW846 8260B			10/27/15 23:12	CJG	A
4-Bromofluorobenzene (S)	97.8		%	79 - 114	SW846 8260B			10/28/15 15:19	DD	C
Dibromofluoromethane (S)	92.8		%	78 - 116	SW846 8260B			10/27/15 23:12	CJG	A
Dibromofluoromethane (S)	94.4		%	78 - 116	SW846 8260B			10/28/15 15:19	DD	C
Toluene-d8 (S)	97.4		%	76 - 127	SW846 8260B			10/27/15 23:12	CJG	A
Toluene-d8 (S)	104		%	76 - 127	SW846 8260B			10/28/15 15:19	DD	C

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548008** Date Collected: 10/20/2015 00:00 Matrix: Ground Water
Sample ID: **TB-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	9.1J	J	ug/L	10.0	3.1	SW846 8260B		10/27/15 19:19	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/27/15 19:19	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/27/15 19:19	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:19	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 19:19	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:19	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/27/15 19:19	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/27/15 19:19	CJG	A
Bromomethane	0.70J	J	ug/L	1.0	0.39	SW846 8260B		10/27/15 19:19	CJG	A
2-Butanone	17.9		ug/L	10.0	1.8	SW846 8260B		10/27/15 19:19	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/27/15 19:19	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/27/15 19:19	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:19	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 19:19	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/27/15 19:19	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:19	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/27/15 19:19	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:19	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/27/15 19:19	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 19:19	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:19	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/27/15 19:19	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:19	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:19	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/27/15 19:19	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/27/15 19:19	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/27/15 19:19	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/27/15 19:19	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/27/15 19:19	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/27/15 19:19	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/27/15 19:19	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/27/15 19:19	CJG	A
Ethylbenzene	0.98J	J	ug/L	1.0	0.34	SW846 8260B		10/27/15 19:19	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/27/15 19:19	CJG	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		10/27/15 19:19	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/27/15 19:19	CJG	A

ALS Environmental
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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548008** Date Collected: 10/20/2015 00:00 Matrix: Ground Water
Sample ID: **TB-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	0.51J	J	ug/L	1.0	0.45	SW846 8260B			10/27/15 19:19	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/27/15 19:19	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/27/15 19:19	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/27/15 19:19	CJG	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B			10/27/15 19:19	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/27/15 19:19	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/27/15 19:19	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:19	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:19	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/27/15 19:19	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/27/15 19:19	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/27/15 19:19	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.4		%	62 - 133	SW846 8260B			10/27/15 19:19	CJG	A
4-Bromofluorobenzene (S)	98		%	79 - 114	SW846 8260B			10/27/15 19:19	CJG	A
Dibromofluoromethane (S)	91		%	78 - 116	SW846 8260B			10/27/15 19:19	CJG	A
Toluene-d8 (S)	105		%	76 - 127	SW846 8260B			10/27/15 19:19	CJG	A

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548009** Date Collected: 10/21/2015 10:40 Matrix: Ground Water
Sample ID: **MP-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	200	62.0	SW846 8260B		10/27/15 23:31	CJG	A
tert-Amyl methyl ether	ND		ug/L	20.0	4.0	SW846 8260B		10/27/15 23:31	CJG	A
tert-Amyl Alcohol	1330		ug/L	200	132	SW846 8260B		10/27/15 23:31	CJG	A
tert-Amyl Ethylether	ND		ug/L	20.0	5.8	SW846 8260B		10/27/15 23:31	CJG	A
Benzene	878		ug/L	20.0	4.6	SW846 8260B		10/27/15 23:31	CJG	A
Bromochloromethane	ND		ug/L	20.0	6.4	SW846 8260B		10/27/15 23:31	CJG	A
Bromodichloromethane	ND		ug/L	20.0	5.4	SW846 8260B		10/27/15 23:31	CJG	A
Bromoform	ND		ug/L	20.0	8.0	SW846 8260B		10/27/15 23:31	CJG	A
Bromomethane	9.8J	J	ug/L	20.0	7.8	SW846 8260B		10/27/15 23:31	CJG	A
2-Butanone	ND		ug/L	200	36.0	SW846 8260B		10/27/15 23:31	CJG	A
tert-Butyl Alcohol	442		ug/L	200	44.0	SW846 8260B		10/27/15 23:31	CJG	A
Carbon Disulfide	ND		ug/L	20.0	4.6	SW846 8260B		10/27/15 23:31	CJG	A
Carbon Tetrachloride	ND		ug/L	20.0	6.2	SW846 8260B		10/27/15 23:31	CJG	A
Chlorobenzene	ND		ug/L	20.0	3.8	SW846 8260B		10/27/15 23:31	CJG	A
Chlorodibromomethane	ND		ug/L	20.0	9.0	SW846 8260B		10/27/15 23:31	CJG	A
Chloroethane	ND		ug/L	20.0	6.6	SW846 8260B		10/27/15 23:31	CJG	A
Chloroform	4.4J	J	ug/L	20.0	4.2	SW846 8260B		10/27/15 23:31	CJG	A
Chloromethane	ND		ug/L	20.0	6.2	SW846 8260B		10/27/15 23:31	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	140	30.0	SW846 8260B		10/27/15 23:31	CJG	A
1,2-Dibromoethane	ND		ug/L	20.0	5.6	SW846 8260B		10/27/15 23:31	CJG	A
Dichlorodifluoromethane	ND		ug/L	20.0	6.6	SW846 8260B		10/27/15 23:31	CJG	A
1,1-Dichloroethane	ND		ug/L	20.0	5.6	SW846 8260B		10/27/15 23:31	CJG	A
1,2-Dichloroethane	ND		ug/L	20.0	6.4	SW846 8260B		10/27/15 23:31	CJG	A
1,1-Dichloroethene	ND		ug/L	20.0	5.8	SW846 8260B		10/27/15 23:31	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	20.0	6.4	SW846 8260B		10/27/15 23:31	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	20.0	5.2	SW846 8260B		10/27/15 23:31	CJG	A
Dichlorofluoromethane	ND		ug/L	20.0	7.4	SW846 8260B		10/27/15 23:31	CJG	A
1,2-Dichloropropane	ND		ug/L	20.0	4.8	SW846 8260B		10/27/15 23:31	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	20.0	6.2	SW846 8260B		10/27/15 23:31	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	20.0	5.8	SW846 8260B		10/27/15 23:31	CJG	A
Diisopropyl ether	105		ug/L	20.0	5.0	SW846 8260B		10/27/15 23:31	CJG	A
Ethyl tert-butyl ether	ND		ug/L	20.0	3.8	SW846 8260B		10/27/15 23:31	CJG	A
Ethylbenzene	ND		ug/L	20.0	6.8	SW846 8260B		10/27/15 23:31	CJG	A
2-Hexanone	ND		ug/L	100	26.0	SW846 8260B		10/27/15 23:31	CJG	A
Methyl t-Butyl Ether	44.6		ug/L	20.0	6.6	SW846 8260B		10/27/15 23:31	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	100	30.0	SW846 8260B		10/27/15 23:31	CJG	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103548 2015-CALVERT CITGO/5977

Lab ID: **2103548009** Date Collected: 10/21/2015 10:40 Matrix: Ground Water
Sample ID: **MP-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	20.0	9.0	SW846 8260B			10/27/15 23:31	CJG	A
Styrene	ND		ug/L	20.0	4.8	SW846 8260B			10/27/15 23:31	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	20.0	6.8	SW846 8260B			10/27/15 23:31	CJG	A
Tetrachloroethene	ND		ug/L	20.0	7.0	SW846 8260B			10/27/15 23:31	CJG	A
Toluene	3130		ug/L	20.0	4.6	SW846 8260B			10/27/15 23:31	CJG	A
Total Xylenes	1190		ug/L	60.0	13.2	SW846 8260B			10/27/15 23:31	CJG	A
1,1,1-Trichloroethane	ND		ug/L	20.0	4.4	SW846 8260B			10/27/15 23:31	CJG	A
1,1,2-Trichloroethane	ND		ug/L	20.0	6.6	SW846 8260B			10/27/15 23:31	CJG	A
Trichloroethene	ND		ug/L	20.0	6.6	SW846 8260B			10/27/15 23:31	CJG	A
Vinyl Chloride	ND		ug/L	20.0	6.0	SW846 8260B			10/27/15 23:31	CJG	A
o-Xylene	396		ug/L	20.0	6.6	SW846 8260B			10/27/15 23:31	CJG	A
mp-Xylene	798		ug/L	40.0	10.4	SW846 8260B			10/27/15 23:31	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.5		%	62 - 133	SW846 8260B			10/27/15 23:31	CJG	A
4-Bromofluorobenzene (S)	99.9		%	79 - 114	SW846 8260B			10/27/15 23:31	CJG	A
Dibromofluoromethane (S)	91.7		%	78 - 116	SW846 8260B			10/27/15 23:31	CJG	A
Toluene-d8 (S)	98		%	76 - 127	SW846 8260B			10/27/15 23:31	CJG	A

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 2

Courier:

Tracking #:

* 2 1 0 3 5 4 8 *

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to):

PO#: 11341

Project Name/#: Calvert Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@repsg.com

Fax? [ ] -Y No.:

	***Container Type	VOA								
	***Container Size	40mL								
	*** Preservative	HCl								
ANALYSES/METHOD REQUESTED		VOCs by 524.2 including fuel oxygenates								

	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										Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
1	MW-001		10/21/15	13:00	G	GW	3										N	N	N	N	
2	MW-001R		10/21/15	12:30	G	GW	3										Y	Y	Y	Y	
3	MW-005		10/21/15	11:50	G	GW	3										N	N	N	N	N
4	MW-005R		10/21/15	11:00	G	GW	3										Y	Y			
5	MW-006		10/21/15	13:30	G	GW	3														
6	FB-002		10/21/15	12:12	G	GW	3														
7	DUP-001		10/21/15		G	GW	3														
8	TB-001		10/21/15		G	GW	3														

	Custody seals Present?	(If present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
	Y	Y	Y	Y	Y

(completed by Sample Receiving)

Performed by: [illegible]

Cooler Temp: 3

Therm. ID: 244

No. of Coolers:

Notes:

SAMPLED BY (Please Print): Michele Jordan

Project Comments: RMK 10/23 545

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Natacia Hilliard	10/22/15	10:55	2 Ron Hunter	10/22/15	1055
3 Ron Hunter	10.22	1700	4 [illegible]	10/22	1700
5 [illegible]	10/22	2009	6 [illegible] ALS	10/22	2007
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

EDDs Required? [✓] 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?

ALS 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

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 01-2013

ALS Environmental

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F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:
Tracking #:

5048

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel
Phone: 215-729-3700
Address: 6901 Kingsessing Ave
Philadelphia, PA 19142

Bill to (if different than Report to):
PO#: 11341

Project Name/#: Calvert Citgo/5977
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] -Y jmanuel@repsg
Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs by 5242 including fuel oxygenates									
***Container Type						VOA									
***Container Size						40ml									
*** Preservative						HCL									
1 MP-001		10/21	10:40	G	GW	3									
2															
3															
4															
5															
6															
7															
8															

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: RS
Cooler Temp: 3
Therm. ID: 294
No. of Coolers:
Notes:

Circle appropriate Y or N.	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?
	Y	Y	Y	Y

Circle appropriate Y or N.	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments: Rush 10/23 5048

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Natalie Hulbert	10/22/15	10:55	2 Jon Hansen	10-22	1055
3 Jon Hansen	10-22	1700	4 [signature]	10/22	1700
5 [signature]	10/22	2007	6 [signature] ALS	10/22	2007
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 [✓] NJ [ ] NY [ ] PA [ ] Other
EDDs Required? [✓] If yes, format type: EQuIS
EDD PWSID No.
DOD Criteria Required?

ALS 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
***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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October 30, 2015

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2103799**
Purchase Order:	**11342**	Workorder ID:	**2015-CALVERT CITGO/5977**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Friday, October 23, 2015.

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 Ms. Susan J Scherer (Project Coordinator) 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 laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. S Shourds , Mr. John Filoon

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2103799001	MW-002	Ground Water	10/22/2015 10:30	10/23/2015 21:18	Collected by Client
2103799002	MW-008	Ground Water	10/22/2015 11:15	10/23/2015 21:18	Collected by Client
2103799003	MW-008D	Ground Water	10/22/2015 14:30	10/23/2015 21:18	Collected by Client
2103799004	TB-002	Ground Water	10/22/2015 00:00	10/23/2015 21:18	Collected by Client
2103799005	FB-003	Ground Water	10/22/2015 12:12	10/23/2015 21:18	Collected by Client

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SAMPLE SUMMARY

Workorder: 2103799 2015-CALVERT CITGO/5977

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 preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799001** Date Collected: 10/22/2015 10:30 Matrix: Ground Water
Sample ID: **MW-002** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	3.3J	J	ug/L	10.0	3.1	SW846 8260B		10/26/15 17:56	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/26/15 17:56	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/26/15 17:56	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:56	CJG	A
Benzene	3.6		ug/L	1.0	0.23	SW846 8260B		10/26/15 17:56	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:56	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/26/15 17:56	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/26/15 17:56	CJG	A
Bromomethane	0.43J	J	ug/L	1.0	0.39	SW846 8260B		10/26/15 17:56	CJG	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/26/15 17:56	CJG	A
tert-Butyl Alcohol	6.3J	J	ug/L	10.0	2.2	SW846 8260B		10/26/15 17:56	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 17:56	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:56	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 17:56	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/26/15 17:56	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:56	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/26/15 17:56	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:56	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/26/15 17:56	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 17:56	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:56	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 17:56	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:56	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:56	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:56	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/26/15 17:56	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/26/15 17:56	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/26/15 17:56	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:56	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:56	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/26/15 17:56	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 17:56	CJG	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/26/15 17:56	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/26/15 17:56	CJG	A
Methyl t-Butyl Ether	4.0		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:56	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/26/15 17:56	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799001** Date Collected: 10/22/2015 10:30 Matrix: Ground Water
Sample ID: **MW-002** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/26/15 17:56	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/26/15 17:56	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/26/15 17:56	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/26/15 17:56	CJG	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B			10/26/15 17:56	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/26/15 17:56	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/26/15 17:56	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:56	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:56	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/26/15 17:56	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:56	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/26/15 17:56	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	62 - 133	SW846 8260B			10/26/15 17:56	CJG	A
4-Bromofluorobenzene (S)	113		%	79 - 114	SW846 8260B			10/26/15 17:56	CJG	A
Dibromofluoromethane (S)	88.3		%	78 - 116	SW846 8260B			10/26/15 17:56	CJG	A
Toluene-d8 (S)	77		%	76 - 127	SW846 8260B			10/26/15 17:56	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799002** Date Collected: 10/22/2015 11:15 Matrix: Ground Water
Sample ID: **MW-008** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		10/28/15 14:21	DD	B
tert-Amyl methyl ether	13.5		ug/L	1.0	0.20	SW846 8260B		10/28/15 14:21	DD	B
tert-Amyl Alcohol	578		ug/L	10.0	6.6	SW846 8260B		10/28/15 14:21	DD	B
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/28/15 14:21	DD	B
Benzene	160		ug/L	5.0	1.2	SW846 8260B		10/26/15 18:40	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/28/15 14:21	DD	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/28/15 14:21	DD	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/28/15 14:21	DD	B
Bromomethane	0.63J	J	ug/L	1.0	0.39	SW846 8260B		10/28/15 14:21	DD	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/28/15 14:21	DD	B
tert-Butyl Alcohol	768		ug/L	10.0	2.2	SW846 8260B		10/28/15 14:21	DD	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/28/15 14:21	DD	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/28/15 14:21	DD	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/28/15 14:21	DD	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/28/15 14:21	DD	B
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/28/15 14:21	DD	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/28/15 14:21	DD	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/28/15 14:21	DD	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/28/15 14:21	DD	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/28/15 14:21	DD	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/28/15 14:21	DD	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/28/15 14:21	DD	B
1,2-Dichloroethane	1.8		ug/L	1.0	0.32	SW846 8260B		10/28/15 14:21	DD	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/28/15 14:21	DD	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/28/15 14:21	DD	B
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/28/15 14:21	DD	B
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/28/15 14:21	DD	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/28/15 14:21	DD	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/28/15 14:21	DD	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/28/15 14:21	DD	B
Diisopropyl ether	27.5		ug/L	1.0	0.25	SW846 8260B		10/28/15 14:21	DD	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/28/15 14:21	DD	B
Ethylbenzene	23.2		ug/L	1.0	0.34	SW846 8260B		10/28/15 14:21	DD	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/28/15 14:21	DD	B
Methyl t-Butyl Ether	575		ug/L	5.0	1.7	SW846 8260B		10/26/15 18:40	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/28/15 14:21	DD	B

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799002** Date Collected: 10/22/2015 11:15 Matrix: Ground Water
Sample ID: **MW-008** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/28/15 14:21	DD	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/28/15 14:21	DD	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/28/15 14:21	DD	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/28/15 14:21	DD	B
Toluene	12.1		ug/L	1.0	0.23	SW846 8260B			10/28/15 14:21	DD	B
Total Xylenes	12.7		ug/L	3.0	0.66	SW846 8260B			10/28/15 14:21	DD	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/28/15 14:21	DD	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/28/15 14:21	DD	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/28/15 14:21	DD	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/28/15 14:21	DD	B
o-Xylene	4.2		ug/L	1.0	0.33	SW846 8260B			10/28/15 14:21	DD	B
mp-Xylene	8.4		ug/L	2.0	0.52	SW846 8260B			10/28/15 14:21	DD	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.5		%	62 - 133	SW846 8260B			10/28/15 14:21	DD	B
1,2-Dichloroethane-d4 (S)	76.5		%	62 - 133	SW846 8260B			10/26/15 18:40	CJG	B
4-Bromofluorobenzene (S)	86.2		%	79 - 114	SW846 8260B			10/26/15 18:40	CJG	B
4-Bromofluorobenzene (S)	100		%	79 - 114	SW846 8260B			10/28/15 14:21	DD	B
Dibromofluoromethane (S)	66.3	1	%	78 - 116	SW846 8260B			10/26/15 18:40	CJG	B
Dibromofluoromethane (S)	93		%	78 - 116	SW846 8260B			10/28/15 14:21	DD	B
Toluene-d8 (S)	96.9		%	76 - 127	SW846 8260B			10/28/15 14:21	DD	B
Toluene-d8 (S)	100		%	76 - 127	SW846 8260B			10/26/15 18:40	CJG	B

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799003** Date Collected: 10/22/2015 14:30 Matrix: Ground Water
Sample ID: **MW-008D** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	7.8J	J	ug/L	10.0	3.1	SW846 8260B		10/29/15 14:31	DD	C
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/29/15 14:31	DD	C
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/29/15 14:31	DD	C
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/29/15 14:31	DD	C
Benzene	0.48J	J	ug/L	1.0	0.23	SW846 8260B		10/29/15 14:31	DD	C
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/29/15 14:31	DD	C
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/29/15 14:31	DD	C
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/29/15 14:31	DD	C
Bromomethane	0.58J	J	ug/L	1.0	0.39	SW846 8260B		10/29/15 14:31	DD	C
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		10/29/15 14:31	DD	C
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/29/15 14:31	DD	C
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/29/15 14:31	DD	C
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/29/15 14:31	DD	C
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/29/15 14:31	DD	C
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/29/15 14:31	DD	C
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/29/15 14:31	DD	C
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/29/15 14:31	DD	C
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/29/15 14:31	DD	C
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/29/15 14:31	DD	C
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/29/15 14:31	DD	C
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/29/15 14:31	DD	C
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/29/15 14:31	DD	C
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/29/15 14:31	DD	C
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/29/15 14:31	DD	C
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/29/15 14:31	DD	C
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/29/15 14:31	DD	C
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/29/15 14:31	DD	C
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/29/15 14:31	DD	C
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/29/15 14:31	DD	C
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/29/15 14:31	DD	C
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/29/15 14:31	DD	C
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/29/15 14:31	DD	C
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		10/29/15 14:31	DD	C
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/29/15 14:31	DD	C
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		10/29/15 14:31	DD	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/29/15 14:31	DD	C

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799003** Date Collected: 10/22/2015 14:30 Matrix: Ground Water
Sample ID: **MW-008D** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/29/15 14:31	DD	C
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/29/15 14:31	DD	C
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/29/15 14:31	DD	C
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/29/15 14:31	DD	C
Toluene	0.63J	J	ug/L	1.0	0.23	SW846 8260B			10/29/15 14:31	DD	C
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/29/15 14:31	DD	C
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/29/15 14:31	DD	C
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/29/15 14:31	DD	C
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/29/15 14:31	DD	C
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/29/15 14:31	DD	C
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/29/15 14:31	DD	C
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/29/15 14:31	DD	C

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98.7		%	62 - 133	SW846 8260B			10/29/15 14:31	DD	C
4-Bromofluorobenzene (S)	96.6		%	79 - 114	SW846 8260B			10/29/15 14:31	DD	C
Dibromofluoromethane (S)	93.2		%	78 - 116	SW846 8260B			10/29/15 14:31	DD	C
Toluene-d8 (S)	102		%	76 - 127	SW846 8260B			10/29/15 14:31	DD	C

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799004** Date Collected: 10/22/2015 00:00 Matrix: Ground Water
Sample ID: **TB-002** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	10.6		ug/L	10.0	3.1	SW846 8260B		10/26/15 17:34	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/26/15 17:34	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/26/15 17:34	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:34	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 17:34	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:34	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/26/15 17:34	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/26/15 17:34	CJG	A
Bromomethane	0.54J	J	ug/L	1.0	0.39	SW846 8260B		10/26/15 17:34	CJG	A
2-Butanone	18.4		ug/L	10.0	1.8	SW846 8260B		10/26/15 17:34	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/26/15 17:34	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 17:34	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:34	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 17:34	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/26/15 17:34	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:34	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/26/15 17:34	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:34	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/26/15 17:34	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 17:34	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:34	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 17:34	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:34	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:34	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:34	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/26/15 17:34	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/26/15 17:34	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/26/15 17:34	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:34	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:34	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/26/15 17:34	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 17:34	CJG	A
Ethylbenzene	0.75J	J	ug/L	1.0	0.34	SW846 8260B		10/26/15 17:34	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/26/15 17:34	CJG	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:34	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/26/15 17:34	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799004** Date Collected: 10/22/2015 00:00 Matrix: Ground Water
Sample ID: **TB-002** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/26/15 17:34	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/26/15 17:34	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/26/15 17:34	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/26/15 17:34	CJG	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B			10/26/15 17:34	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/26/15 17:34	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/26/15 17:34	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:34	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:34	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/26/15 17:34	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:34	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/26/15 17:34	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	62 - 133	SW846 8260B			10/26/15 17:34	CJG	A
4-Bromofluorobenzene (S)	100		%	79 - 114	SW846 8260B			10/26/15 17:34	CJG	A
Dibromofluoromethane (S)	89.1		%	78 - 116	SW846 8260B			10/26/15 17:34	CJG	A
Toluene-d8 (S)	77.2		%	76 - 127	SW846 8260B			10/26/15 17:34	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799005** Date Collected: 10/22/2015 12:12 Matrix: Ground Water
Sample ID: **FB-003** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	12.1		ug/L	10.0	3.1	SW846 8260B		10/26/15 17:12	CJG	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		10/26/15 17:12	CJG	A
tert-Amyl Alcohol	ND		ug/L	10.0	6.6	SW846 8260B		10/26/15 17:12	CJG	A
tert-Amyl Ethylether	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:12	CJG	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 17:12	CJG	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:12	CJG	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		10/26/15 17:12	CJG	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		10/26/15 17:12	CJG	A
Bromomethane	0.46J	J	ug/L	1.0	0.39	SW846 8260B		10/26/15 17:12	CJG	A
2-Butanone	4.0J	J	ug/L	10.0	1.8	SW846 8260B		10/26/15 17:12	CJG	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		10/26/15 17:12	CJG	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		10/26/15 17:12	CJG	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:12	CJG	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 17:12	CJG	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		10/26/15 17:12	CJG	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:12	CJG	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		10/26/15 17:12	CJG	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:12	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		10/26/15 17:12	CJG	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 17:12	CJG	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:12	CJG	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		10/26/15 17:12	CJG	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:12	CJG	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:12	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		10/26/15 17:12	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B		10/26/15 17:12	CJG	A
Dichlorofluoromethane	ND		ug/L	1.0	0.37	SW846 8260B		10/26/15 17:12	CJG	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		10/26/15 17:12	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		10/26/15 17:12	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B		10/26/15 17:12	CJG	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		10/26/15 17:12	CJG	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		10/26/15 17:12	CJG	A
Ethylbenzene	0.55J	J	ug/L	1.0	0.34	SW846 8260B		10/26/15 17:12	CJG	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		10/26/15 17:12	CJG	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		10/26/15 17:12	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		10/26/15 17:12	CJG	A

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ANALYTICAL RESULTS

Workorder: 2103799 2015-CALVERT CITGO/5977

Lab ID: **2103799005** Date Collected: 10/22/2015 12:12 Matrix: Ground Water
Sample ID: **FB-003** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B			10/26/15 17:12	CJG	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B			10/26/15 17:12	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B			10/26/15 17:12	CJG	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B			10/26/15 17:12	CJG	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B			10/26/15 17:12	CJG	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B			10/26/15 17:12	CJG	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B			10/26/15 17:12	CJG	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:12	CJG	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:12	CJG	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B			10/26/15 17:12	CJG	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			10/26/15 17:12	CJG	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B			10/26/15 17:12	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	104		%	62 - 133	SW846 8260B			10/26/15 17:12	CJG	A
4-Bromofluorobenzene (S)	97.2		%	79 - 114	SW846 8260B			10/26/15 17:12	CJG	A
Dibromofluoromethane (S)	89		%	78 - 116	SW846 8260B			10/26/15 17:12	CJG	A
Toluene-d8 (S)	95.1		%	76 - 127	SW846 8260B			10/26/15 17:12	CJG	A

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2103799002	1	MW-008	SW846 8260B	Dibromofluoromethane

The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 66.3 and the control limits were 78 to 116. This result was reported at a dilution of 5.

ALS Environmental

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P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

SJB

Page 1 of 1

Courier:

Tracking #:

2103799

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: 11342

Project Name/#: Calvert Citgo / 5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@repsg.com

Fax? [ ] -Y No.:

***Container Type: VOA

***Container Size: 40-L

Preservative: HCl

ANALYSES/METHOD REQUESTED: VOCs by 8260B 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	VOCs by 8260B including fuel oxygenates
1	MW-002		10/22/15	1030	G	GW	3
2	MW-008		10/22/15	1115	G	GW	3
3	MW-008D		10/22/15	1430	G	GW	3
4	TB-002		10/22/15		G	GW	3
5	FB-003		10/22/15	1212	G	GW	3
6							
7							
8							

(completed by Sample Receiving)

Performed by: [illegible]

Cooler Temp: [illegible] °C

Therm. ID: 2514

No. of Coolers:

Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	N	N	N	N	
	Y	Y	Y	Y	
	N	N	N	N	N
	Y	Y	Y	Y	Y

	Custody seals Present?	(If present) Seals Intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?

LMG 10/24/15 0206

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible]	10/22/15	17:20	2 [illegible] ALS	10/23/15	1320
3 [illegible]	10/23	1720	4 [illegible]	10/23	1720
5 [illegible]	10/23	2118	6 [illegible]	10/23	2118
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 [ ]

Other

EDDs Required? [X] If yes, format type: EQUIS

Enter PWSID No.

DOD Criteria Required?

ALS 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

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 01-2013

Calvert Citgo
2815 NE Road, North East MD
Drinking Water Results

Pre-Filtration

		Sample ID	*DW-001*	*DW-001*	*DW-001*	*DW-001*
		Sample date	1/20/2015	4/28/2015	7/15/2015	10/21/2015
Compound	**EPA Std.**	**Unit**				
1,2-Dichloroethane	5	ug/l	1.4	1.1	1.2	2.7
1,4-Dioxane	**	ug/l	ND	ND	ND	ND
Acetone	**	ug/l	ND	9.1	ND	7.7
Isopropyl Ether	**	ug/l	0.41	0.9	0.86	1.4
Methyl chloride	**	ug/l	0.28	ND	ND	ND
Methyl ethyl ketone	**	ug/l	7.9	8.8	ND	ND
Methyl tert-butyl ether	**	ug/l	14.8	22.6	36.5	114
Tert-Amyl Methyl Ether	**	ug/l	ND	0.22	ND	ND
tert-Butylalcohol	**	ug/l	6.9	12.8	7.7	14.2
Toluene	1000	ug/l	ND	ND	ND	ND

Mid-Filtration

		Sample ID	*DW-001A*	*DW-001A*	*DW-001A*	*DW-001A*
		Sample date	1/20/2015	4/28/2015	7/15/2015	10/21/2015
Compound	**EPA Std.**	**Unit**				
Acetone	**	ug/l	4.7	10.3	5.2	11.9
Methyl ethyl ketone	**	ug/l	8.2	7.4	ND	ND
Methyl tert-butyl ether	**	ug/l	ND	ND	ND	ND
Methacrylonitrile	**	ug/l	ND	ND	ND	0.27
Naphthalene	**	ug/l	ND	0.16	ND	ND
n-Hexane	**	ug/l	ND	0.58	ND	0.65
tert-Butylalcohol	**	ug/l	ND	10.3	6.3	5.9

Post-Filtration

		Sample ID	*DW-001B*	*DW-001B*	*DW-001B*	*DW-001B*
		Sample date	1/20/2015	4/28/2015	7/15/2015	10/21/2015
Compound	**EPA Std.**	**Unit**				
Acetone	**	ug/l	6	10.9	3.9	15.2
Methyl ethyl ketone	**	ug/l	7	8.6	ND	ND
n-Hexane	**	ug/l	ND	ND	ND	0.38
tert-Butylalcohol	**	ug/l	7.6	12	9.9	ND

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React Environmental
Professional Services Group, Inc.

Last Four Quarters of Results for Compounds Known to Have Detections in Sample DW-001 (Gas Station)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 01/20/2015-10/21/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-001	DW-001	DW-001	DW-001
			Date:	01/20/2015	04/28/2015	07/15/2015	10/21/2015
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	0.22J	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)							
1,2-Dichloroethane	ug/l	5		1.4	1.1	1.2	2.7
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<4U
Acetone	ug/l	**		<2.2U	9.1	<2.2U	7.7
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Isopropyl Ether	ug/l	**		0.41J	0.9	0.86	1.4
Methyl chloride	ug/l	**		0.28J	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		7.9	8.8	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		14.8	22.6	36.5	114
tert-Butylalcohol	ug/l	**		6.9	12.8	7.7	14.2
Toluene	ug/l	1000		<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.

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Professional Services Group, Inc.

Last Four Quarters of Results for Compounds Known to Have Detections in Sample DW-001A (Gas Station)

Analytical Chemistry Report

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

Matrix: Water

Sample Dates: 01/20/2015-10/21/2015

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-001A	DW-001A	DW-001A	DW-001A
			Date:	01/20/2015	04/28/2015	07/15/2015	10/21/2015
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	0.58	<0.22U	0.65
Volatile Organic Compounds (VOCs)							
Acetone	ug/l	**		4.7J	10.3	5.2	11.9
Methyl ethyl ketone	ug/l	**		8.2	7.4	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		<0.09U	<0.09U	<0.09U	<0.09U
tert-Butylalcohol	ug/l	**		<1.4U	10.3	6.3	5.9
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
Naphthalene	ug/l	**		<0.15U	0.16J	<0.15U	<0.15U

Print Date: 11/24/2015

** 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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Last Four Quarters of Results for Compounds Known to Have Detections in Sample DW-001B (Gas Station)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 01/20/2015-10/21/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-001B	DW-001B	DW-001B	DW-001B
			Date:	01/20/2015	04/28/2015	07/15/2015	10/21/2015
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	0.38J
Volatile Organic Compounds (VOCs)							
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<4U
Acetone	ug/l	**		6	10.9	3.9J	15.2
Methyl ethyl ketone	ug/l	**		7	8.6	<1.3U	<1.3U
tert-Butylalcohol	ug/l	**		7.6	12	9.9	<1.4U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	<0.81U
Toluene	ug/l	1000		<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.

OFF SITE

House # 2794

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 #:

COC#

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave. Philadelphia, PA 19142

Bill to (if different than Report to): Same

PO#: 11496

Project Name/#: Calvert Citgo / 5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@REPSG.com

Fax? [ ] -Y No.

							***Container Type	VOA	Poly														
							***Container Size	40 mL	500 mL														
							*** Preservative	HCl	UP														
							ANALYSES/METHOD REQUESTED																
								VOCs by 524.2 inc. Fuel Oxygenates	Residual chlorine														
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	10/21/15	1335	G	DW	2	1																
2 DW-001A	Mid	10/21/15	1340	G	DW	2	1																
3 DW-001B	Post	10/21/15	1345	G	DW	2	1																
4																							
5																							
6																							
7																							
8																							

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			2		
3			4		
5			6		
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 [ ]

Other

EDDs Required? [X] If yes, format type: EQUIS

⇨ Enter PWSID No.

DOD Criteria Required?

ALS 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

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 01-2013

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 28, 2015

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2103537**
Purchase Order:	**11496**	Workorder ID:	**2015-CALVERT CITGO/5977**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Thursday, October 22, 2015.

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 Ms. Susan J Scherer (Project Coordinator) 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 laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. S Shourds , Mr. John Filoon

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2103537001	DW-001	Water	10/21/2015 13:35	10/22/2015 20:07	Collected by Client
2103537002	DW-001A	Water	10/21/2015 13:40	10/22/2015 20:07	Collected by Client
2103537003	DW-001B	Water	10/21/2015 13:45	10/22/2015 20:07	Collected by Client

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 preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537001** Date Collected: 10/21/2015 13:35 Matrix: Water
Sample ID: **DW-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	7.7		ug/L	5.0	2.2	EPA 524.2		10/27/15 04:18	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 04:18	CPK	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:18	CPK	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 04:18	CPK	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 04:18	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 04:18	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 04:18	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:18	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:18	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 04:18	CPK	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 04:18	CPK	A
tert-Butyl Alcohol	14.2		ug/L	5.0	1.4	EPA 524.2		10/27/15 04:18	CPK	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 04:18	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:18	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 04:18	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:18	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 04:18	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 04:18	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 04:18	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 04:18	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 04:18	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:18	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:18	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 04:18	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:18	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 04:18	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:18	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:18	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:18	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 04:18	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 04:18	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 04:18	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:18	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:18	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537001** Date Collected: 10/21/2015 13:35 Matrix: Water
Sample ID: **DW-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:18	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:18	CPK	A
1,2-Dichloroethane	2.7		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:18	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:18	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:18	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 04:18	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 04:18	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:18	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:18	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 04:18	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 04:18	CPK	A
Diisopropyl ether	1.4		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:18	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 04:18	CPK	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:18	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 04:18	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 04:18	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:18	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 04:18	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:18	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 04:18	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:18	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 04:18	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 04:18	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:18	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 04:18	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 04:18	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 04:18	CPK	A
Methyl t-Butyl Ether	114		ug/L	5.0	0.90	EPA 524.2		10/28/15 01:27	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 04:18	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 04:18	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:18	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 04:18	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 04:18	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:18	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537001** Date Collected: 10/21/2015 13:35 Matrix: Water
Sample ID: **DW-001** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 04:18	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 04:18	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 04:18	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 04:18	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 04:18	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 04:18	CPK	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			10/27/15 04:18	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 04:18	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 04:18	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 04:18	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 04:18	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 04:18	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 04:18	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 04:18	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 04:18	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 04:18	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 04:18	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 04:18	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 04:18	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 04:18	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 04:18	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 04:18	CPK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	82.2		%	70 - 130		EPA 524.2			10/27/15 04:18	CPK	A
1,2-Dichlorobenzene-d4 (S)	77.3		%	70 - 130		EPA 524.2			10/28/15 01:27	CPK	A
4-Bromofluorobenzene (S)	84.5		%	70 - 130		EPA 524.2			10/28/15 01:27	CPK	A
4-Bromofluorobenzene (S)	86.5		%	70 - 130		EPA 524.2			10/27/15 04:18	CPK	A
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537002** Date Collected: 10/21/2015 13:40 Matrix: Water
Sample ID: **DW-001A** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	11.9		ug/L	5.0	2.2	EPA 524.2		10/27/15 12:29	CPK	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 12:29	CPK	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:29	CPK	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 12:29	CPK	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 12:29	CPK	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 12:29	CPK	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 12:29	CPK	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:29	CPK	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:29	CPK	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 12:29	CPK	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 12:29	CPK	B
tert-Butyl Alcohol	5.9		ug/L	5.0	1.4	EPA 524.2		10/27/15 12:29	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 12:29	CPK	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:29	CPK	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 12:29	CPK	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:29	CPK	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 12:29	CPK	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 12:29	CPK	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 12:29	CPK	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 12:29	CPK	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 12:29	CPK	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:29	CPK	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:29	CPK	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 12:29	CPK	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:29	CPK	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 12:29	CPK	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:29	CPK	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:29	CPK	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:29	CPK	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 12:29	CPK	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 12:29	CPK	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 12:29	CPK	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:29	CPK	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:29	CPK	B

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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537002** Date Collected: 10/21/2015 13:40 Matrix: Water
Sample ID: **DW-001A** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:29	CPK	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:29	CPK	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:29	CPK	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:29	CPK	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:29	CPK	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 12:29	CPK	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 12:29	CPK	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:29	CPK	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:29	CPK	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 12:29	CPK	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 12:29	CPK	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:29	CPK	B
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 12:29	CPK	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:29	CPK	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 12:29	CPK	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 12:29	CPK	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:29	CPK	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 12:29	CPK	B
Hexane	0.65		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:29	CPK	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 12:29	CPK	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:29	CPK	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 12:29	CPK	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 12:29	CPK	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:29	CPK	B
Methacrylonitrile	0.27J	J	ug/L	1.0	0.23	EPA 524.2		10/27/15 12:29	CPK	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 12:29	CPK	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 12:29	CPK	B
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2		10/27/15 12:29	CPK	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 12:29	CPK	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 12:29	CPK	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:29	CPK	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 12:29	CPK	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 12:29	CPK	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:29	CPK	B

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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537002** Date Collected: 10/21/2015 13:40 Matrix: Water
Sample ID: **DW-001A** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 12:29	CPK	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 12:29	CPK	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 12:29	CPK	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 12:29	CPK	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 12:29	CPK	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 12:29	CPK	B
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			10/27/15 12:29	CPK	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 12:29	CPK	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 12:29	CPK	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 12:29	CPK	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 12:29	CPK	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 12:29	CPK	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 12:29	CPK	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 12:29	CPK	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 12:29	CPK	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 12:29	CPK	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 12:29	CPK	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 12:29	CPK	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 12:29	CPK	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 12:29	CPK	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 12:29	CPK	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 12:29	CPK	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	89.9		%	70 - 130		EPA 524.2			10/27/15 12:29	CPK	B
4-Bromofluorobenzene (S)	89.6		%	70 - 130		EPA 524.2			10/27/15 12:29	CPK	B
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
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ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537003** Date Collected: 10/21/2015 13:45 Matrix: Water
Sample ID: **DW-001B** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	15.2		ug/L	5.0	2.2	EPA 524.2		10/27/15 12:55	CPK	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 12:55	CPK	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:55	CPK	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 12:55	CPK	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 12:55	CPK	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 12:55	CPK	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 12:55	CPK	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:55	CPK	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:55	CPK	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 12:55	CPK	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 12:55	CPK	B
tert-Butyl Alcohol	ND		ug/L	5.0	1.4	EPA 524.2		10/27/15 12:55	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 12:55	CPK	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:55	CPK	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 12:55	CPK	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:55	CPK	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 12:55	CPK	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 12:55	CPK	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 12:55	CPK	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 12:55	CPK	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 12:55	CPK	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:55	CPK	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:55	CPK	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 12:55	CPK	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:55	CPK	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 12:55	CPK	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:55	CPK	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:55	CPK	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:55	CPK	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 12:55	CPK	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 12:55	CPK	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 12:55	CPK	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:55	CPK	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:55	CPK	B

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537003** Date Collected: 10/21/2015 13:45 Matrix: Water
Sample ID: **DW-001B** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:55	CPK	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:55	CPK	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:55	CPK	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 12:55	CPK	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:55	CPK	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 12:55	CPK	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 12:55	CPK	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:55	CPK	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:55	CPK	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 12:55	CPK	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 12:55	CPK	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:55	CPK	B
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 12:55	CPK	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 12:55	CPK	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 12:55	CPK	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 12:55	CPK	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 12:55	CPK	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 12:55	CPK	B
Hexane	0.38J	J	ug/L	0.50	0.22	EPA 524.2		10/27/15 12:55	CPK	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 12:55	CPK	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 12:55	CPK	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 12:55	CPK	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 12:55	CPK	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 12:55	CPK	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 12:55	CPK	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 12:55	CPK	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 12:55	CPK	B
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2		10/27/15 12:55	CPK	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 12:55	CPK	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 12:55	CPK	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 12:55	CPK	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 12:55	CPK	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 12:55	CPK	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 12:55	CPK	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103537 2015-CALVERT CITGO/5977

Lab ID: **2103537003** Date Collected: 10/21/2015 13:45 Matrix: Water
Sample ID: **DW-001B** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 12:55	CPK	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 12:55	CPK	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 12:55	CPK	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 12:55	CPK	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 12:55	CPK	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 12:55	CPK	B
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			10/27/15 12:55	CPK	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 12:55	CPK	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 12:55	CPK	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 12:55	CPK	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 12:55	CPK	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 12:55	CPK	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 12:55	CPK	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 12:55	CPK	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 12:55	CPK	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 12:55	CPK	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 12:55	CPK	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 12:55	CPK	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 12:55	CPK	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 12:55	CPK	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 12:55	CPK	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 12:55	CPK	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.9		%	70 - 130		EPA 524.2			10/27/15 12:55	CPK	B
4-Bromofluorobenzene (S)	88.5		%	70 - 130		EPA 524.2			10/27/15 12:55	CPK	B
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

House # 2794

OFF SITE

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 #:

210353 7

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 King sessing Ave. Philadelphia, PA 19142

Bill to (if different than Report to): Same

PO#: 11496

Project Name/#: Calvert Citgo /5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] Y jmanuel@REPSG.com

Fax? [ ] Y No.:

							***Container Type	VOA	Poly														
							***Container Size	40 ml	500 ml														
							Preservative	HCl	UP														
							ANALYSES/METHOD REQUESTED	VOCs by 524.2 inc. Fuel Oxygenates	Residual chlorine														
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	10/21/15	1335	G	DW			2	1														
2 DW-001A	Mid	10/21/15	1340	G	DW			2	1														
3 DW-001B	Post	10/21/15	1345	G	DW			2	1														
4																							
5																							
6																							
7																							
8																							

Sample Receipt Information (completed by Sample Receiving)

Performed by: KPS

Cooler Temp: 3

Therm. ID: 294

No. of Coolers:

Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
Y	Y	Y	Y	Y
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments: Rmk 10/23 520

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Natalie Gaffney	10/22/15	10:55	2 Ron Horsey	10/22	1053
3 Ron Horsey	10-22	1700	4 [illegible]	10/22	1700
5 [illegible]	10/22	2007	6 [illegible] ALS	10/22	2007
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.

ALS 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

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 01-2013

Calvert Citgo
2794 NE Road, North East MD
Drinking Water Results

Pre-Filtration

		Sample ID	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C* 9/2/2015 (Pre-Carbon Change Out)	*DW-004C* 9/2/2015 (Post-Carbon Change Out)	*DW-004C*
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/22/2015
Compound	**EPA Std.**	**Unit**												
1,1-Dichloroethane	5	ug/l	ND	ND	ND	ND	0.13	0.11	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	ug/l	ND	**21**	**12.2**	**9.7**	**16.6**	**15.6**	**12.2**	**11.8**	**10.7**	**9.6**	ND	**12.2**
1,4-Dioxane	**	ug/l	ND	ND	ND	ND	ND	4.2	2.3	ND	ND	ND	ND	ND
2-Nitropropane	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.6
Benzene	5	ug/l	ND	ND	ND	ND	0.082	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	**	ug/l	ND	ND	ND	ND	ND	ND	ND	0.23	ND	ND	ND	ND
Cymene	**	ug/l	ND	ND	0.14	ND	0.11	ND	ND	ND	ND	ND	ND	ND
Diethyl ether	**	ug/l	ND	0.23	ND	0.23	0.37	0.39	0.27	0.23	ND	ND	ND	0.21
Isopropyl benzene	**	ug/l	ND	ND	0.25	ND	0.15	0.14	ND	ND	ND	ND	ND	ND
Isopropyl ether	**	ug/l	ND	4.8	4.6	5.6	ND	ND	ND	ND	ND	4	3.8	5.7
m-Dichlorobenzene	**	ug/l	ND	ND	0.21	ND	ND	0.15	ND	ND	ND	ND	ND	ND
Methyl chloride	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	6.7	6.8	5	8.7	8.2	4.1	ND	ND	4.4	ND	1.8
Methyl tert-butyl ether	**	ug/l	555	527	420	472	780	549	596	548	521	401	343	490
p-Dichlorobenzene	**	ug/l	ND	0.13	0.12	ND	0.13	0.14	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	**	ug/l	ND	ND	0.21	0.53	ND	0.16	ND	0.1	ND	ND	ND	ND
Tert-Amyl alcohol	**	ug/l	ND	144	ND	ND	202	ND	ND	166	143	ND	ND	ND
Tert-Amyl Methyl Ether	**	ug/l	ND	ND	ND	ND	ND	3.9	3	3.2	ND	2.6	2.2	3.2
tert-Butylalcohol	**	ug/l	6820	5260	5510	4520	7880	5380	4510	5530	5270	4450	3180	5030
Tetrahydrofuran	**	ug/l	ND	5.7	ND	ND	ND	ND	0.95	1.2	ND	ND	0.97	ND
Toluene	**	ug/l	ND	ND	ND	ND	0.15	ND	ND	ND	ND	0.12	0.12	ND

Mid-Carbon 1

		Sample ID	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I* 9/2/2015 (Pre-Carbon Change Out)	*DW-004I* 9/2/2015 (Post-Carbon Change Out)	*DW-004I*
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/22/2015
Compound	**EPA Std.**	**Unit**												
1,4-Dioxane	**	ug/l	ND	ND	ND	ND	ND	ND	2.4	2.4	ND	ND	ND	ND
Acetone	**	ug/l	ND	4.2	10	ND	ND	10.5	ND	ND	ND	ND	ND	ND
Methyl bromide	**	ug/l	ND	ND	ND	0.17	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	7.8	8.7	6	8.6	8.1	4.9	ND	ND	3.4	ND	ND
Methyl tert-butyl ether	**	ug/l	26.4	39.6	67.6	118	302	282	410	366	381	367	67.1	137
Tert-Amyl alcohol	**	ug/l	ND	32.9	107	114	121	199	ND	165	131	ND	ND	ND
Tert-Amyl Methyl Ether	**	ug/l	ND	ND	ND	ND	0.17	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	**	ug/l	6170	4010	4310	4380	7930	5770	6380	5590	5790	4590	4130	4740
Tetrahydrofuran	**	ug/l	ND	23.9	ND	5.7	ND	6.4	4.7	2.6	2.6	3.8	3.6	2.9
Toluene	1000	ug/l	ND	ND	ND	ND	0.13	ND	ND	ND	ND	ND	ND	ND

Mid-Carbon 2

		Sample ID	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J* 9/2/2015 (Pre-Carbon Change Out)	*DW-004J* 9/2/2015 (Post-Carbon Change Out)	*DW-004J*
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/22/2015
Compound	**EPA Std.**	**Unit**												
1,4-Dioxane	**	ug/l	ND	ND	ND	ND	ND	2.9	3.7	ND	ND	ND	ND	ND
Acetone	**	ug/l	ND	3.9	6.3	7.7	17.1	12.7	7.9	4.6	ND	ND	7.6	ND
Methyl bromide	**	ug/l	ND	ND	0.22	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	6.2	8	5.8	7.8	9.4	4.9	ND	ND	4.4	ND	ND
Methyl tert-butyl ether	**	ug/l	16.7	ND	0.38	0.2	0.68	2.1	5.9	11.8	28.4	74.1	20	0.62
n-Butylbenzne	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26	ND	ND
n-Hexane	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert-Amyl alcohol	**	ug/l	ND	7.6	56.5	13.2	18.2	24.8	34.6	71	85.5	95.3	ND	ND
tert-Butylalcohol	**	ug/l	5450	4270	3470	4660	7410	5770	6630	4920	5820	4200	1530	5220
trans-1,4-Dichloro-2-butene	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	**	ug/l	ND	11.8	6.3	5.5	5.8	6.4	6.8	5.6	6.4	7.2	1.85	1.8
Toluene	1000	ug/l	ND	ND	ND	ND	0.22	ND	ND	ND	ND	ND	ND	ND

Post-Carbon

		Sample ID	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K* 9/2/2015 (Pre-Carbon Change Out)	*DW-004K* 9/2/2015 (Post-Carbon Change Out)	*DW-004K*
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/22/2015
Compound	**EPA Std.**	**Unit**												
1,4-Dioxane	**	ug/l	ND	ND	ND	ND	ND	2.2	2.8	ND	ND	ND	ND	ND
2-Hexanone	**	ug/l	ND	ND	0.85	ND	ND	ND	ND	3.1	ND	ND	ND	ND
Acetone	**	ug/l	ND	4	5.5	4.9	20.2	7.2	7.9	ND	ND	6.6	9.5	ND
n-Hexane	**	ug/l	ND	ND	ND	ND	ND	ND	ND	0.78	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	7.8	8.9	5.6	8.9	5.7	7	ND	ND	4.6	ND	ND
Methyl tert-butyl ether	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35	0.12	0.3
Methylene chloride	5	ug/l	**99.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	**	ug/l	5700	4220	3610	4130	7030	5080	5910	5570	5170	4830	5220	4400
Tetrahydrofuran	**	ug/l	ND	3580	8.1	5.1	ND	6.4	6.8	7.1	7.9	8.3	8.9	7.5
Toluene	1000	ug/l	ND	ND	ND	ND	0.16	ND	ND	ND	ND	ND	ND	ND

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/22/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C_Post	DW-004C_Pre	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<80U	<0.8U	<0.8U	<0.8U
Chlorine	ug/l	4000		-	-	-	-	<9U	-
Methyl iodide	ug/l	**		<0.19U	<0.19U	<19U	<0.19U	<0.19U	<0.19U
Tert-Amyl Methyl Ether	ug/l	**		2.2	2.6	<15U	<0.15U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<11U	<0.11U	<0.11U	<0.11U
1,2-Dichloroethane	ug/l	5		<0.15U	**9.6**	<15U#	**12**	**12.2**	**9.7**
1,4-Dioxane	ug/l	**		<4U	<4U	<150U	<1.5U	<1.5U	<1.5U
Acetone	ug/l	**		<2.2U	<2.2U	<220U	<2.2U	<2.2U	<2.2U
Benzene	ug/l	5		<0.07U	<0.07U	<7U#	<0.07U	<0.07U	<0.07U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<21U	<0.21U	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<14U	<0.14U	<0.14U	<0.14U
Cymene	ug/l	**		<0.11U	<0.11U	<11U	<0.11U	0.14J	<0.11U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<21U	0.23J	<0.21U	0.23J
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<14U	<0.14U	0.25J	<0.14U
Isopropyl Ether	ug/l	**		3.8	4	<21U	4.8	4.6	5.6
Methyl chloride	ug/l	**		<0.22U	<0.22U	<22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	4.4	<130U	6.7	6.8	5

** 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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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/22/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C_Post	DW-004C_Pre	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Methyl tert-butyl ether	ug/l	**		343	401	555	527	420	472
Methylene chloride	ug/l	5		<0.32U	<0.32U	<32U#	<0.32U	<0.32U	<0.32U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<10U	<0.1U	0.21J	0.53
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<160U	144	<160U	<80U
tert-Butylalcohol	ug/l	**		3180	4450	6820	5260	5510	4520
Tetrahydrofuran	ug/l	**		0.97J	<0.81U	<81U	5.7	<0.81U	<0.81U
Toluene	ug/l	1000		0.13J	0.12J	<12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<11U	<0.11U	0.21J	<0.11U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<11U	0.13J	0.12J	<0.11U

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U	<0.8U	<0.8U
Chlorine	ug/l	4000		-	<9U	-	-	<9U	<9U

Print Date: 11/24/2015

** No Applicable Regulatory Standard

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/22/2015**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	3.9	3	3.2	<0.15U	3.2
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		0.13J	0.11J	<0.11U	<0.11U	<0.11U	<0.11U
1,2-Dichloroethane	ug/l	5		**16.6**	**15.6**	**12.2**	**11.8**	**10.7**	**12.2**
1,4-Dioxane	ug/l	**		<1.5U	4.2	2.3J	<1.5U	<1.5U	<4U
Acetone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U	<2.2U	21.6
Benzene	ug/l	5		0.082J	<0.07U	<0.07U	<0.07U	<0.07U	<0.07U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	0.23J	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Cymene	ug/l	**		0.11J	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
Diethyl ether	ug/l	**		0.37J	0.39J	0.27J	0.23J	<0.21U	0.21J
Isopropyl benzene	ug/l	**		0.15J	0.14J	<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	5.7
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		8.7	8.2	4.1	<1.3U	<1.3U	1.8J
Methyl tert-butyl ether	ug/l	**		780	549	596	548	521	490
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U
sec-Butylbenzene	ug/l	**		<0.1U	0.16J	<0.1U	0.1J	<0.1U	<0.1U
Tert-Amyl alcohol	ug/l	**		202	<160U	<160U	166	143	<160U

** No Applicable Regulatory Standard

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/22/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
tert-Butylalcohol	ug/l	**		7880	5380	4510	5530	5270	5030
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	0.95J	1.2J	<0.81U	<0.81U
Toluene	ug/l	1000		0.15J	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	0.15J	<0.11U	<0.11U	<0.11U	<0.11U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.13J	0.14J	<0.11U	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004I (Mid-Carbon 1; 2794 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/22/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004I_Post	DW-004I_Pre	DW-004I	DW-004I	DW-004I	DW-004I
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<22U	<0.22U	<0.22U	<0.22U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<15U	<0.15U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<150U	<1.5U	<1.5U	<1.5U
Acetone	ug/l	**		<2.2U	<2.2U	<220U	4.2J	<2.2U	<2.2U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<13U	<0.13U	<0.13U	0.17J
Methyl ethyl ketone	ug/l	**		<1.3U	3.4	<130U	7.8	8.7	6
Methyl tert-butyl ether	ug/l	**		67.1	367	26.4J	39.6	67.6	118
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<160U	32.9	107	114
tert-Butylalcohol	ug/l	**		4130	4590	6170	4010	4310	4380
Tetrahydrofuran	ug/l	**		3.6	3.8	<81U	23.9	<0.81U	5.7
Toluene	ug/l	1000		<0.12U	<0.12U	<12U	<0.12U	<0.12U	<0.12U

Constituent	**Unit**	***Standard**	**Location:**	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0

** No Applicable Regulatory Standard

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004I (Mid-Carbon 1; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/22/2015**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Tert-Amyl Methyl Ether	ug/l	**		0.17J	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	2.4J	2.4J	<1.5U	<4U
Acetone	ug/l	**		<2.2U	10.5	<2.2U	<2.2U	<2.2U	<2.2U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		8.6	8.1	4.9	<1.3U	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		302	282	410	366	381	137
Tert-Amyl alcohol	ug/l	**		121	199J	<160U	165	131	<160U
tert-Butylalcohol	ug/l	**		7930	5590	6380	5590	5790	4740
Tetrahydrofuran	ug/l	**		<0.81U	4.9	4.7	2.6	2.6	2.9
Toluene	ug/l	1000		0.13J	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004J (Mid-Carbon 2; 2794 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/22/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004J_Post	DW-004J_Pre	DW-004J	DW-004J	DW-004J	DW-004J
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<150U	<1.5U	<1.5U	<1.5U
Acetone	ug/l	**		7.6	<2.2U	<220U	3.9J	6.3	7.7
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<13U	<0.13U	0.22J	<0.13U
Methyl ethyl ketone	ug/l	**		<1.3U	4.4	<130U	6.2	8	5.8
Methyl tert-butyl ether	ug/l	**		20	74.1	16.7J	<0.09U	0.38J	0.2J
Tert-Amyl alcohol	ug/l	**		<1.6U	95.3	<160U	7.6	56.5	13.2
tert-Butylalcohol	ug/l	**		1530	4200	5450	4270	3470	4660
Tetrahydrofuran	ug/l	**		1.8J	7.2	<81U	11.8	6.3	5.5
Toluene	ug/l	1000		<0.12U	<0.12U	<12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<19U	<0.19U	<0.19U	<0.19U

Constituent	**Unit**	***Standard**	**Location:**	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<1.5U	2.9J	3.7J	<1.5U	<1.5U	<4U
Acetone	ug/l	**		17.1	12.7	7.9	4.6J	<2.2U	<2.2U

** 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.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004J (Mid-Carbon 2; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/22/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/22/2015
			Depth (ft):	0	0	0	0	0	0
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		7.8	9.4	4.9	<1.3U	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		0.68	2.1	5.9	11.8	28.4	0.62
Tert-Amyl alcohol	ug/l	**		18.2	24.8	34.6	71	85.5	<1.6U
tert-Butylalcohol	ug/l	**		7410	5770	6630	4920	5820	5220
Tetrahydrofuran	ug/l	**		5.8	6.4	6.8	5.6	6.4	1.8J
Toluene	ug/l	1000		0.22J	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<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.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004K (Post-Filtration; 2794 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/20/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004K_Post	DW-004K_Pre	DW-004K	DW-004K	DW-004K	DW-004K
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<150U	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<82U	<0.82U	0.85J	<0.82U
Acetone	ug/l	**		9.5	6.6	<220U	4J	5.5	4.9J
Methyl ethyl ketone	ug/l	**		<1.3U	4.6	<130U	7.8	8.9	5.6
Methyl tert-butyl ether	ug/l	**		0.12J	0.35J	<9U	<0.09U	<0.09U	<0.09U
tert-Butylalcohol	ug/l	**		5220	4830	5700	4220	3610	4130
Tetrahydrofuran	ug/l	**		8.9	8.3	<81U	3580	8.1	5.1
Toluene	ug/l	1000		<0.12U	<0.12U	<12U	<0.12U	<0.12U	<0.12U

Constituent	**Unit**	***Standard**	**Location:**	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	0.78J	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									

Print Date: 11/24/2015

** 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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React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004K (Post-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
1,4-Dioxane	ug/l	**		<1.5U	2.2J	2.8J	<1.5U	<1.5U	<4U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		20.2	7.2	5.8	3.1J	<2.2U	<2.2U
Methyl ethyl ketone	ug/l	**		8.9	5.7	7	<1.3U	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		<0.09U	<0.09U	<0.09U	<0.09U	<0.09U	0.3J
tert-Butylalcohol	ug/l	**		7030	5080	5910	5570	5170	4400
Tetrahydrofuran	ug/l	**		<0.81U	7.7	6.8	7.1	7.9	7.5
Toluene	ug/l	1000		0.16J	<0.12U	<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.

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Off-Site House# 2794

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 #:

COC#

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: ~~11478~~ 11503

Project Name/#: Calvert Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@repsg.com

Fax? [ ] -Y No:

***Container Type	VOA	Poly																			
***Container Size	40mL	500mL																			
*** Preservative	HCl	UP																			

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs by 524.2 including fuel oxygenates	+ Residual chlorine														
						Enter Number of Containers Per Analysis															
1 DW-004C		10/22/15	10:45	G	DW	X	X														
2 DW-004I		10/22/15	10:40	G	DW	X	X														
3 DW-004J		10/22/15	10:35	G	DW	X	X														
4 DW-004K		10/20/15	10:30	G	DW	X	X														
5																					
6																					
7																					
8																					

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.	
Y N	Y N	Y N	Y N		
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?	
Y N	Y N	Y N	Y N	Y N	

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			2		
3			4		
5			6		
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?

ALS FIELD SERVICES

[ ] 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

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 01-2013

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
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 29, 2015

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2103798**
Purchase Order:	**11503**	Workorder ID:	**2015-CALVERT CITGO/5977**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Friday, October 23, 2015.

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 Ms. Susan J Scherer (Project Coordinator) 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 laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. S Shourds , Mr. John Filoon

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2103798001	DW-004C	Water	10/22/2015 10:45	10/23/2015 21:18	Collected by Client
2103798002	DW-004I	Water	10/22/2015 10:40	10/23/2015 21:18	Collected by Client
2103798003	DW-004J	Water	10/22/2015 10:35	10/23/2015 21:18	Collected by Client
2103798004	DW-004K	Water	10/20/2015 10:30	10/23/2015 21:18	Collected by Client

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 preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798001** Date Collected: 10/22/2015 10:45 Matrix: Water
Sample ID: **DW-004C** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	21.6		ug/L	5.0	2.2	EPA 524.2		10/27/15 18:56	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 18:56	CPK	A
tert-Amyl methyl ether	3.2		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:56	CPK	A
tert-Amyl Alcohol	ND		ug/L	500	160	EPA 524.2		10/29/15 06:57	CPK	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 18:56	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 18:56	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 18:56	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:56	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:56	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 18:56	CPK	A
2-Butanone	1.8J	J	ug/L	2.5	1.3	EPA 524.2		10/27/15 18:56	CPK	A
tert-Butyl Alcohol	5030		ug/L	500	140	EPA 524.2		10/29/15 06:57	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 18:56	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:56	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 18:56	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:56	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 18:56	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 18:56	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 18:56	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 18:56	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 18:56	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:56	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:56	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 18:56	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:56	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 18:56	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:56	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:56	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:56	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 18:56	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 18:56	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 18:56	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:56	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:56	CPK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798001** Date Collected: 10/22/2015 10:45 Matrix: Water
Sample ID: **DW-004C** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:56	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:56	CPK	A
1,2-Dichloroethane	12.2		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:56	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:56	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:56	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 18:56	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 18:56	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:56	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:56	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 18:56	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 18:56	CPK	A
Diisopropyl ether	5.7		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:56	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 18:56	CPK	A
Ethyl Ether	0.21J	J	ug/L	0.50	0.21	EPA 524.2		10/27/15 18:56	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 18:56	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 18:56	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:56	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 18:56	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:56	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 18:56	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:56	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 18:56	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 18:56	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:56	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 18:56	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 18:56	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 18:56	CPK	A
Methyl t-Butyl Ether	490		ug/L	50.0	9.0	EPA 524.2		10/29/15 06:57	CPK	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 18:56	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 18:56	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:56	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 18:56	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 18:56	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:56	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798001** Date Collected: 10/22/2015 10:45 Matrix: Water
Sample ID: **DW-004C** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 18:56	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 18:56	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 18:56	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 18:56	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 18:56	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 18:56	CPK	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			10/27/15 18:56	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 18:56	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 18:56	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 18:56	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 18:56	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 18:56	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 18:56	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 18:56	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 18:56	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 18:56	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 18:56	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 18:56	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 18:56	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 18:56	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 18:56	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 18:56	CPK	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	81.1		%	70 - 130	EPA 524.2			10/29/15 06:57	CPK	B
1,2-Dichlorobenzene-d4 (S)	81		%	70 - 130	EPA 524.2			10/27/15 18:56	CPK	A
4-Bromofluorobenzene (S)	73.7		%	70 - 130	EPA 524.2			10/27/15 18:56	CPK	A
4-Bromofluorobenzene (S)	82.5		%	70 - 130	EPA 524.2			10/29/15 06:57	CPK	B

WET CHEMISTRY

Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/24/15 08:11	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798002** Date Collected: 10/22/2015 10:40 Matrix: Water
Sample ID: **DW-004I** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	5.0	2.2	EPA 524.2		10/27/15 19:22	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 19:22	CPK	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:22	CPK	A
tert-Amyl Alcohol	ND		ug/L	500	160	EPA 524.2		10/29/15 07:23	CPK	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 19:22	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 19:22	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 19:22	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:22	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:22	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 19:22	CPK	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 19:22	CPK	A
tert-Butyl Alcohol	4740		ug/L	500	140	EPA 524.2		10/29/15 07:23	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 19:22	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:22	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 19:22	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:22	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 19:22	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 19:22	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 19:22	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 19:22	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 19:22	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:22	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:22	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 19:22	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:22	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 19:22	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:22	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:22	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:22	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 19:22	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 19:22	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 19:22	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:22	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:22	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798002** Date Collected: 10/22/2015 10:40 Matrix: Water
Sample ID: **DW-004I** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:22	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:22	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:22	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:22	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:22	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 19:22	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 19:22	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:22	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:22	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 19:22	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 19:22	CPK	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:22	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 19:22	CPK	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:22	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 19:22	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 19:22	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:22	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 19:22	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:22	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 19:22	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:22	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 19:22	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 19:22	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:22	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 19:22	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 19:22	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 19:22	CPK	A
Methyl t-Butyl Ether	137		ug/L	0.50	0.090	EPA 524.2		10/27/15 19:22	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 19:22	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 19:22	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:22	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 19:22	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 19:22	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:22	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798002** Date Collected: 10/22/2015 10:40 Matrix: Water
Sample ID: **DW-004I** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 19:22	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 19:22	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 19:22	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 19:22	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 19:22	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 19:22	CPK	A
Tetrahydrofuran	2.9		ug/L	2.5	0.81	EPA 524.2			10/27/15 19:22	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 19:22	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 19:22	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 19:22	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 19:22	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 19:22	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 19:22	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 19:22	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 19:22	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 19:22	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 19:22	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 19:22	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 19:22	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 19:22	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 19:22	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 19:22	CPK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78.9		%	70 - 130		EPA 524.2			10/27/15 19:22	CPK	A
1,2-Dichlorobenzene-d4 (S)	89.8		%	70 - 130		EPA 524.2			10/29/15 07:23	CPK	B
4-Bromofluorobenzene (S)	82.4		%	70 - 130		EPA 524.2			10/27/15 19:22	CPK	A
4-Bromofluorobenzene (S)	85.4		%	70 - 130		EPA 524.2			10/29/15 07:23	CPK	B
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/24/15 08:11	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798003** Date Collected: 10/22/2015 10:35 Matrix: Water
Sample ID: **DW-004J** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	5.0	2.2	EPA 524.2		10/27/15 18:30	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 18:30	CPK	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:30	CPK	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 18:30	CPK	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 18:30	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 18:30	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 18:30	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:30	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:30	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 18:30	CPK	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 18:30	CPK	A
tert-Butyl Alcohol	5220		ug/L	500	140	EPA 524.2		10/29/15 07:49	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 18:30	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:30	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 18:30	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:30	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 18:30	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 18:30	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 18:30	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 18:30	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 18:30	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:30	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:30	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 18:30	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:30	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 18:30	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:30	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:30	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:30	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 18:30	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 18:30	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 18:30	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:30	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:30	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798003** Date Collected: 10/22/2015 10:35 Matrix: Water
Sample ID: **DW-004J** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:30	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:30	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:30	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:30	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:30	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 18:30	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 18:30	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:30	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:30	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 18:30	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 18:30	CPK	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:30	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 18:30	CPK	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 18:30	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 18:30	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 18:30	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 18:30	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 18:30	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 18:30	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 18:30	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 18:30	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 18:30	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 18:30	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 18:30	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 18:30	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 18:30	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 18:30	CPK	A
Methyl t-Butyl Ether	0.62		ug/L	0.50	0.090	EPA 524.2		10/27/15 18:30	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 18:30	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 18:30	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 18:30	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 18:30	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 18:30	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 18:30	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798003** Date Collected: 10/22/2015 10:35 Matrix: Water
Sample ID: **DW-004J** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 18:30	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 18:30	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 18:30	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 18:30	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 18:30	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 18:30	CPK	A
Tetrahydrofuran	1.8J	J	ug/L	2.5	0.81	EPA 524.2			10/27/15 18:30	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 18:30	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 18:30	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 18:30	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 18:30	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 18:30	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 18:30	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 18:30	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 18:30	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 18:30	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 18:30	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 18:30	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 18:30	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 18:30	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 18:30	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 18:30	CPK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	82.6		%	70 - 130		EPA 524.2			10/29/15 07:49	CPK	B
1,2-Dichlorobenzene-d4 (S)	80.4		%	70 - 130		EPA 524.2			10/27/15 18:30	CPK	A
4-Bromofluorobenzene (S)	80.6		%	70 - 130		EPA 524.2			10/27/15 18:30	CPK	A
4-Bromofluorobenzene (S)	85.5		%	70 - 130		EPA 524.2			10/29/15 07:49	CPK	B
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/24/15 08:11	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798004** Date Collected: 10/20/2015 10:30 Matrix: Water
Sample ID: **DW-004K** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	ND		ug/L	5.0	2.2	EPA 524.2		10/27/15 19:48	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 19:48	CPK	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:48	CPK	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 19:48	CPK	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 19:48	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 19:48	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 19:48	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:48	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:48	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 19:48	CPK	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 19:48	CPK	A
tert-Butyl Alcohol	4400		ug/L	500	140	EPA 524.2		10/29/15 08:15	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 19:48	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:48	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 19:48	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:48	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 19:48	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 19:48	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 19:48	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 19:48	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 19:48	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:48	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:48	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 19:48	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:48	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 19:48	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:48	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:48	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:48	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 19:48	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 19:48	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 19:48	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:48	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:48	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798004** Date Collected: 10/20/2015 10:30 Matrix: Water
Sample ID: **DW-004K** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:48	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:48	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:48	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:48	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:48	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 19:48	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 19:48	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:48	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:48	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 19:48	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 19:48	CPK	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:48	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 19:48	CPK	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 19:48	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 19:48	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 19:48	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 19:48	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 19:48	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 19:48	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 19:48	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 19:48	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 19:48	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 19:48	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 19:48	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 19:48	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 19:48	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 19:48	CPK	A
Methyl t-Butyl Ether	0.30J	J	ug/L	0.50	0.090	EPA 524.2		10/27/15 19:48	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 19:48	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 19:48	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 19:48	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 19:48	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 19:48	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 19:48	CPK	A

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
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103798 2015-CALVERT CITGO/5977

Lab ID: **2103798004** Date Collected: 10/20/2015 10:30 Matrix: Water
Sample ID: **DW-004K** Date Received: 10/23/2015 21:18

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 19:48	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 19:48	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 19:48	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 19:48	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 19:48	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 19:48	CPK	A
Tetrahydrofuran	7.5		ug/L	2.5	0.81	EPA 524.2			10/27/15 19:48	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 19:48	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 19:48	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 19:48	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 19:48	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 19:48	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 19:48	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 19:48	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 19:48	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 19:48	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 19:48	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 19:48	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 19:48	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 19:48	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 19:48	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 19:48	CPK	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	83.6		%	70 - 130	EPA 524.2			10/27/15 19:48	CPK	A
1,2-Dichlorobenzene-d4 (S)	84.5		%	70 - 130	EPA 524.2			10/29/15 08:15	CPK	B
4-Bromofluorobenzene (S)	87.9		%	70 - 130	EPA 524.2			10/29/15 08:15	CPK	B
4-Bromofluorobenzene (S)	87.4		%	70 - 130	EPA 524.2			10/27/15 19:48	CPK	A

WET CHEMISTRY

Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/24/15 08:11	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

Off-Site
House# 2794

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

SJB

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

* 2 1 0 3 7 9 8 *

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 213-729-3220

Address: 6901 Kingsessing Ave Philadelphia PA 19142

Bill to (if different than Report to): Same

PO#: ~~11478~~ 11503

Project Name/#: Calvert Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@repsg.com

Fax? [ ] -Y No.:

		***Container Type	VOA	Poly
		***Container Size	40mL	500mL
		Preservative	HCl	UP

ANALYSES/METHOD REQUESTED: VOCs by 524.2 including fuel oxygenate; + Residual chlorine

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	VOCs by 524.2 including fuel oxygenate	+ Residual chlorine
1 DW-004C		10/22/15	10:45	G	DW	X2	X1
2 DW-004I		10/22/15	10:40	G	DW	X2	X1
3 DW-004J		10/22/15	10:35	G	DW	X2	X1
4 DW-004K		10/20/15	10:30	G	DW	X2	X1
5							
6							
7							
8							

(completed by Sample Receiving) Performed by: [signature]

Cooler Temp: 0°C

Therm. ID: 2AL

No. of Coolers:

Notes:

Circle appropriate Y or N.

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?
Y	Y	Y	N/A

Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	Y N	Y	Y	Y

UMG 10/24/15 0204

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Keith Tucker	10/23/15	13:20	2 [signature]	10/23/15	1320
3 [signature]	10/23	1720	4 [signature]	10/23	1720
5 [signature]	10/23	2118	6 [signature]	10/23	2118
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?

ALS 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 01-2013

Calvert Citgo
2802 NE Road, North East MD
Drinking Water Results

Pre-Filtration

		Sample ID	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A 9/2/2015 (Pre-Carbon Change Out)	DW-005A 9/2/2015 (Post-Carbon Change Out)	DW-005A
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/20/2015
Compound	**EPA Std.**	**Unit**												
1,1-Dichloroethane	**	ug/l	ND	0.27	0.37	0.24	0.37	0.49	0.33	0.32J	ND	0.24	0.23	0.23
1,2-Dichloroethane	5	ug/l	ND	1.7	1.2	1.2	1.3	1.5	0.49	0.63	ND	0.83	3.1	4.7
1,2,4-Trichlorobenzene	70	ug/l	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	**	ug/l	ND	ND	ND	11	ND	ND	3.5	1.8J	ND	ND	ND	ND
Acetone	**	ug/l	ND	3.7	9.6	4.4	16.1	15.7	8.4	15.3	61.5	21.2	ND	58.1
Benzene	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	**	ug/l	ND	ND	ND	ND	ND	5.1	1.1	4.7	ND	0.98	ND	ND
Bromoform	**	ug/l	ND	ND	ND	ND	ND	ND	0.31	1.2	ND	0.27	ND	ND
Carbon disulfide	**	ug/l	ND	ND	ND	ND	ND	ND	ND	0.33	32.3	ND	ND	ND
Chlorine	**	ug/l	ND	ND	ND	ND	ND	110	ND	ND	ND	ND	ND	ND
Chlorobenzene	**	ug/l	ND	ND	ND	ND	ND	ND	ND	0.23	ND	ND	ND	ND
Chloroethane	**	ug/l	ND	ND	ND	ND	ND	ND	ND	0.33	ND	ND	ND	ND
Chloroform	**	ug/l	ND	ND	ND	0.28	ND	46.4	4.3	23	ND	6.6	0.55	ND
Dibromochloromethane	**	ug/l	ND	ND	ND	ND	ND	1.3	0.81	3.1	ND	0.49	ND	ND
Diethyl ether	**	ug/l	ND	ND	ND	0.22	0.75	0.58	0.62	0.41	ND	0.4	ND	0.5
Isopropyl Ether	**	ug/l	ND	ND	ND	0.49	1.7	2.1	0.64	0.45	ND	0.36	1.1	2.3
Methyl bromide	**	ug/l	ND	ND	ND	0.2	ND	ND	ND	0.13	ND	0.14	ND	ND
Methyl ethyl ketone	**	ug/l	ND	ND	ND	4.7	7.8	10.4	5.9	ND	ND	ND	2	ND
Methyl tert-butyl ether	**	ug/l	54	31	9	17.7	132	189	52.9	48.9	48.3	27.1	136	324
Naphthalene	**	ug/l	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	**	ug/l	ND	ND	ND	0.68	ND	ND	ND	ND	ND	ND	ND	ND
p-Dichlorobenzene	75	ug/l	ND	ND	0.13	0.12	0.11	0.2	ND	ND	ND	0.15	ND	ND
sec-Butylbenzene	**	ug/l	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Tert-Amyl alcohol	**	ug/l	ND	ND	ND	ND	12.1	24	5.6	ND	ND	ND	ND	56
Tert-Amyl Methyl Ether	**	ug/l	ND	ND	ND	ND	1.4	2	ND	ND	ND	ND	1.7	3.6
tert-Butylalcohol	**	ug/l	88.7	144	33.6	5.9	245	313	59.2	20.9	ND	17.9	857	1320
Tetrahydrofuran	**	ug/l	ND	450	ND	7.9	ND	ND	ND	283	166	172	ND	ND
Toluene	1000	ug/l	ND	ND	ND	ND	ND	0.74	ND	0.23	ND	ND	ND	ND

Mid-Carbon 1

		Sample ID	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I 9/2/2015 (Pre-Carbon Change Out)	DW-005I 9/2/2015 (Post-Carbon Change Out)	DW-005I
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/20/2015
Compound	**EPA Std.**	**Unit**												
1,2,3-Trichlorobenzene	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	**	ug/l	ND	10.2	ND	ND	3.1	ND	ND	3.8	51.8	ND	ND	ND
Acetone	**	ug/l	ND	2.7	7.5	4.4	17.6	10.1	5.1	3	ND	4	8.5	16.1
Methyl bromide	**	ug/l	ND	ND	ND	0.24	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	ND	ND	5.7	7.6	6	4.7	ND	ND	ND	ND	ND
Methyl tert-butyl ether	**	ug/l	2.2	0.72	ND	ND	ND	ND	ND	0.18	ND	0.11	0.14	0.2
n-Hexane	**	ug/l	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND
Naphthalene	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert-Amyl alcohol	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	**	ug/l	1070	1610	15.2	681	1050	998	1270	1200	1330	954	49.9	1330
Tetrahydrofuran	**	ug/l	ND	1000	ND	5.2	5.2	3.7	5.5	81.5	ND	73.6	1.1	ND
Toluene	1000	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Mid-Carbon 2

		Sample ID	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J 9/2/2015 (Pre-Carbon Change Out)	DW-005J 9/2/2015 (Post-Carbon Change Out)	DW-005J
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/20/2015
Compound	**EPA Std.**	**Unit**												
1,4-Dioxane	**	ug/l	ND	ND	ND	ND	ND	ND	3.8	2.8	ND	ND	ND	ND
Acetone	**	ug/l	ND	6.5	12.3	6.7	11	10	ND	ND	ND	ND	7.6	20.3
Carbon disulfide	**	ug/l	ND	ND	ND	ND	0.23	0.29	ND	0.41	0.27	0.41	0.63	ND
Methyl bromide	**	ug/l	ND	0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	ND	ND	5.5	9.4	7.5	5	2.5	ND	ND	3.2	ND
Methyl tert-butyl ether	**	ug/l	1.9	ND	ND	ND	ND	ND	0.13	ND	ND	ND	0.12	0.19
n-Hexane	**	ug/l	ND	ND	ND	ND	ND	ND	ND	1	ND	ND	ND	ND
Pentachloroethane	**	ug/l	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	**	ug/l	1120	904	33.3	686	1020	1100	1000	1340	1230	1050	739	646
Tetrahydrofuran	**	ug/l	ND	404	ND	10.4	11.8	11.7	13.5	57.4	35.7	181	9.2	13.1
Toluene	1000	ug/l	ND	ND	ND	ND	0.14	ND	ND	ND	ND	ND	ND	ND

Post-Carbon

		Sample ID	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K 9/2/2015 (Pre-Carbon Change Out)	DW-005K 9/2/2015 (Post-Carbon Change Out)	DW-005K
		Sample date	11/20/2014	12/15/2014	1/20/2015	2/13/2015	3/18/2015	4/28/2015	5/21/2015	6/23/2015	7/15/2015			10/20/2015
Compound	**EPA Std.**	**Unit**												
1,2,4-Trichlorobenzene	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	**	ug/l	82.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.7
Acetone	**	ug/l	91.1	4	10	6.2	17.4	8.1	4.6	3.9	6.2	6.8	7.6	ND
Carbon disulfide	**	ug/l	ND	ND	ND	0.27	0.56	0.4	0.44	0.29	0.69	0.67	ND	ND
Isopropanol	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl bromide	**	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	ND	ND	4.3	7.9	5.7	5.3	ND	ND	ND	ND	ND
Methyl tert-butyl ether	**	ug/l	2.5	4.6	0.89	0.62	0.36	0.71	0.15	1.2	2.6	2	ND	ND
n-Butylbenzene	**	ug/l	ND	ND	ND	0.65	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	**	ug/l	137	7.8	224	18.6	33.4	8.4	9.9	16.7	9.1	43.6	10.8	469
Tetrahydrofuran	**	ug/l	ND	378	ND	ND	ND	13.5	2.1	33.9	299	246	2.1	2.1
Toluene	1000	ug/l	ND	0.14	0.83	ND	0.13	ND	ND	ND	ND	ND	ND	ND

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/20/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005 A	DW-005A_Post	DW-005A_Pre	DW-005A	DW-005A	DW-005A
			Date:	01/20/2015	09/02/2015	09/02/2015	11/20/2014	12/15/2014	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		14J	-	-	-	-	-
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	1.7	<0.15U	<1.5U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		0.37J	0.23J	0.24J	<1.1U	0.27J	0.24J
1,2-Dichloroethane	ug/l	5		1.2	3.1	0.83	<1.5U	1.7	1.2
1,4-Dioxane	ug/l	**		<1.5U	<4U	<4U	<15U	<1.5U	11
Acetone	ug/l	**		<2.2U	<2.2U	21.2	<22U	3.7J	4.4J
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.7U	<0.07U	<0.07U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	0.98	<2.2U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	0.27J	<2.3U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<2.1U	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<1.4U	<0.14U	<0.14U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<2.4U	<0.24U	<0.24U
Chloroform	ug/l	**		0.24J	0.55	6.6	<1.9U	<0.19U	0.28J
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	0.49J	<1.8U	<0.18U	<0.18U
Diethyl ether	ug/l	**		<0.21U	<0.21U	0.4J	<2.1U	<0.21U	0.22J
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<1.4U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	1.1	0.36J	<2.1U	<0.21U	0.49J

** 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.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005 A	DW-005A_Post	DW-005A_Pre	DW-005A	DW-005A	DW-005A
			Date:	01/20/2015	09/02/2015	09/02/2015	11/20/2014	12/15/2014	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	0.14J	<1.3U	<0.13U	0.2J
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<2.2U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		9.6	2J	<1.3U	<13U	<1.3U	4.7
Methyl tert-butyl ether	ug/l	**		9	136	27.1	54	31	17.7
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<3.2U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<1.3U	<0.13U	0.68
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<1U	<0.1U	0.5J
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<16U	<1.6U	<1.6U
tert-Butylalcohol	ug/l	**		5	857	17.9	88.7	144	5.9
Tetrahydrofuran	ug/l	**		33.6	<0.81U	172	<8.1U	450	7.9
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<1.2U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<1.4U	<0.14U	0.2J
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<1.5U	<0.15U	0.2J
p-Dichlorobenzene	ug/l	75		0.13J	<0.11U	0.15J	<1.1U	<0.11U	0.12J

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0

** 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.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		-	110	-	-	<9U	<9U
Tert-Amyl Methyl Ether	ug/l	**		1.4	2	<0.15U	<0.15U	<3U	3.6
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		0.37J	0.49J	0.33J	0.32J	<2.2U	0.23J
1,2-Dichloroethane	ug/l	5		1.3	1.5	0.49J	0.63	<3U	4.7
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	3.5J	1.8J	<30U	<4U
Acetone	ug/l	**		16.1	15.7	8.4	15.3	61.5J	58.1
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U	<1.4U	<0.07U
Bromodichloromethane	ug/l	**		<0.22U	5.1	1.1	4.7	<4.4U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	0.31J	1.2	<4.6U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	0.33J	<4.2U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	0.23J	<2.8U	<0.14U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	0.33J	<4.8U	<0.24U
Chloroform	ug/l	**		<0.19U	46.4	4.3	23	32.3	<0.19U
Dibromochloromethane	ug/l	**		<0.18U	1.3	0.81	3.1	<3.6U	<0.18U
Diethyl ether	ug/l	**		0.75	0.58	0.62	0.41J	<4.2U	0.5
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U	<2.8U	<0.14U
Isopropyl Ether	ug/l	**		1.7	2.1	0.64	0.45J	<4.2U	2.3
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.13J	<2.6U	0.16J

** No Applicable Regulatory Standard

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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<4.4U	<0.22U
Methyl ethyl ketone	ug/l	**		7.8	10.4	5.9	<1.3U	<26U	<1.3U
Methyl tert-butyl ether	ug/l	**		132	189	52.9	48.9	48.3	324
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<6.4U#	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<2.6U	<0.13U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U	<2U	<0.1U
Tert-Amyl alcohol	ug/l	**		12.1	24	5.6	<1.6U	<32U	56
tert-Butylalcohol	ug/l	**		245	313	59.2	20.9	<28U	1320
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	283	166	<0.81U
Toluene	ug/l	1000		<0.12U	0.74	<0.12U	0.23J	<2.4U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<2.8U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<3U	<0.15U
p-Dichlorobenzene	ug/l	75		0.11J	0.2J	<0.11U	<0.11U	<2.2U	0.15J

** 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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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005I (Mid-Carbon 1; 2802 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/20/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005I_Post	DW-005I_Pre	DW-005I	DW-005I	DW-005I	DW-005I
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<4.4U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<4.6U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<4U	<4U	<30U	10.2	<1.5U	<1.5U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<16.4U	<0.82U	<0.82U	<0.82U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<4.2U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<2.6U	<0.13U	<0.13U	0.24J
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	<26U	<1.3U	7.5	5.7
Methyl tert-butyl ether	ug/l	**		0.14J	0.11J	2.2J	0.72	<0.09U	<0.09U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<32U	<1.6U	<1.6U	<1.6U
Tetrahydrofuran	ug/l	**		1.1J	73.6	<16.2U	1000	15.2	5.2
Toluene	ug/l	1000		<0.12U	<0.12U	<2.4U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<2.8U	<0.14U	<0.14U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<3U	<0.15U	<0.15U	<0.15U

Constituent	**Unit**	***Standard**	**Location:**	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I

** 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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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005I (Mid-Carbon 1; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	1.2J	<4.4U	<0.22U
Volatile Organic Compounds (VOCs)									
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<4.6U	<0.23U
1,4-Dioxane	ug/l	**		3.1J	<1.5U	<1.5U	3.8J	51.8J	<4U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U	<16.4U	<0.82U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<4.2U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<2.6U	<0.13U
Methyl ethyl ketone	ug/l	**		7.6	6	4.7	<1.3U	<26U	<1.3U
Methyl tert-butyl ether	ug/l	**		<0.09U	<0.09U	<0.09U	0.18J	<1.8U	0.2J
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U	<32U	<1.6U
Tetrahydrofuran	ug/l	**		5.2	3.7	5.5	81.5	<16.2U	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<2.4U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<2.8U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<3U	<0.15U

** No Applicable Regulatory Standard

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005J (Mid-Carbon 2; 2802 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/20/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005J_Post	DW-005J_Pre	DW-005J	DW-005J	DW-005J	DW-005J
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
n-Hexane	ug/l	**		<0.22U	<0.22U	<4.4U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<4.6U	<0.23U	<0.23U	1.1
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<30U	<1.5U	<1.5U	<1.5U
Acetone	ug/l	**		7.6	<2.2U	<44U	6.5	6.9	6.7
Carbon disulfide	ug/l	**		0.63	0.41J	<4.2U	<0.21U	0.35J	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<2.6U	0.23J	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		3.2	<1.3U	<26U	<1.3U	12.3	5.5
Methyl tert-butyl ether	ug/l	**		0.12J	<0.09U	1.9J	<0.09U	<0.09U	<0.09U
tert-Butylalcohol	ug/l	**		739	1050	1120	904	791	686
Tetrahydrofuran	ug/l	**		9.2	181	<16.2U	404	33.3	10.4
Toluene	ug/l	1000		<0.12U	<0.12U	<2.4U	<0.12U	<0.12U	<0.12U

Constituent	**Unit**	***Standard**	**Location:**	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									

** No Applicable Regulatory Standard

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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005J (Mid-Carbon 2; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	1J	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	1.7J	2.8J	<1.5U	<4U
Acetone	ug/l	**		11	10	3.8J	<2.2U	<2.2U	20.3
Carbon disulfide	ug/l	**		0.23J	0.29J	<0.21U	0.41J	0.27J	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		9.4	7.5	5	2.5J	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		<0.09U	<0.09U	0.13J	<0.09U	<0.09U	0.19J
tert-Butylalcohol	ug/l	**		1020	1100	1000	1340	1230	646
Tetrahydrofuran	ug/l	**		11.8	11.7	13.5	57.4	35.7	13.1
Toluene	ug/l	1000		0.14J	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U

** No Applicable Regulatory Standard

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React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005K (Post-Filtration; 2802 NE Rd.)

Analytical Chemistry Report

Matrix: Water

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

Sample Dates: 11/20/2014-10/20/2015

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005K_Post	DW-005K_Pre	DW-005K	DW-005K	DW-005K	DW-005K
			Date:	09/02/2015	09/02/2015	11/20/2014	12/15/2014	01/20/2015	02/13/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Isopropanol	ug/l	**		<3.9U	<3.9U	<78U	<3.9U	<3.9U	<3.9U
n-Hexane	ug/l	**		<0.22U	<0.22U	<4.4U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	82.3	<1.5U	<1.5U	<1.5U
Acetone	ug/l	**		7.6	6.8	91.1J	4J	7.9	6.2
Carbon disulfide	ug/l	**		<0.21U	0.67	<4.2U	<0.21U	0.31J	0.27J
Methyl bromide	ug/l	**		<0.13U	<0.13U	<2.6U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	<26U	<1.3U	<1.3U	4.3
Methyl tert-butyl ether	ug/l	**		<0.09U	2	2.5J	4.6	0.89	0.62
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<2.6U	<0.13U	<0.13U	0.65
tert-Butylalcohol	ug/l	**		10.8	43.6	137	7.8	47.6J	18.6
Tetrahydrofuran	ug/l	**		2.1J	246	<16.2U	378	224	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<2.4U	0.14J	0.83	<0.12U

Constituent	**Unit**	***Standard**	**Location:**	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0

** 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.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005K (Post-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 11/20/2014-10/20/2015**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K
			Date:	03/18/2015	04/28/2015	05/21/2015	06/23/2015	07/15/2015	10/20/2015
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	<3.9U	<3.9U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U	<1.5U	<1.5U	<4U
Acetone	ug/l	**		17.4	8.1	4.6J	3.9J	6.2	9.7
Carbon disulfide	ug/l	**		0.56	0.4J	0.44J	0.29J	0.69	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		7.9	5.7	5.3	<1.3U	<1.3U	<1.3U
Methyl tert-butyl ether	ug/l	**		0.36J	0.71	0.15J	1.2	2.6	<0.09U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
tert-Butylalcohol	ug/l	**		33.4	8.4	9.9	16.7	9.1	469
Tetrahydrofuran	ug/l	**		<0.81U	13.5	2.1J	33.9	299	2.1J
Toluene	ug/l	1000		0.13J	<0.12U	<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.

House # 2802

OFF SITE

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.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 #:

COC#

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave
Philadelphia, PA 19142

Bill to (if different than Report to): Same

PO#: 11478

Project Name/#: Calvert Citgo/5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y jmanuel@REPSG.com

Fax? [ ] -Y No.

***Container Type					40ml	Poly										
***Container Size					VOA	500ml										
*** Preservative					HCl/Ascb	UP										
	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs by 524.2 inc. Fuel Oxygenates	Residual Chlorine								
1	DW-005K	Post-Filtration	10-20-15	1045	G	DW	2	1								
2	DW-005J	Mid-Carbon 2	10/20/15	1050	G	DW	2	1								
3	DW-005I	Mid-Carbon 1	10/20/15	1055	G	DW	2	1								
4	DW-005A	Pre-Filtration	10/20/15	1100	G	DW	2	1								
5																
6																
7																
8																

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.	
N	N	N	N		
Y	Y	Y	Y		
N	N	N	N	N	
Y	Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?	

SAMPLED BY (Please Print): Michele Jordan

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			2		
3			4		
5			6		
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 [ ]

Other

EDDs Required? [X] If yes, format type: EQUIS

⇨ Enter PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES

[ ] 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

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 01-2013

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 30, 2015

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2103538**
Purchase Order:	**11478**	Workorder ID:	**2015-CALVERT CITGO/5977**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Thursday, October 22, 2015.

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 Ms. Susan J Scherer (Project Coordinator) 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 laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. S Shourds , Mr. John Filoon

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2103538001	DW-005K	Water	10/20/2015 10:45	10/22/2015 20:07	Collected by Client
2103538002	DW-005J	Water	10/20/2015 10:50	10/22/2015 20:07	Collected by Client
2103538003	DW-005I	Water	10/20/2015 10:55	10/22/2015 20:07	Collected by Client
2103538004	DW-005A	Water	10/20/2015 11:00	10/22/2015 20:07	Collected by Client

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 preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538001** Date Collected: 10/20/2015 10:45 Matrix: Water
Sample ID: **DW-005K** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	9.7		ug/L	5.0	2.2	EPA 524.2		10/27/15 13:21	CPK	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 13:21	CPK	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 13:21	CPK	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 13:21	CPK	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 13:21	CPK	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 13:21	CPK	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 13:21	CPK	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 13:21	CPK	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 13:21	CPK	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 13:21	CPK	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 13:21	CPK	B
tert-Butyl Alcohol	469	1	ug/L	5.0	1.4	EPA 524.2		10/27/15 13:21	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 13:21	CPK	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 13:21	CPK	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 13:21	CPK	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 13:21	CPK	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 13:21	CPK	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 13:21	CPK	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 13:21	CPK	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 13:21	CPK	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 13:21	CPK	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 13:21	CPK	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 13:21	CPK	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 13:21	CPK	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 13:21	CPK	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 13:21	CPK	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 13:21	CPK	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 13:21	CPK	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 13:21	CPK	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 13:21	CPK	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 13:21	CPK	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 13:21	CPK	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 13:21	CPK	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 13:21	CPK	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538001** Date Collected: 10/20/2015 10:45 Matrix: Water
Sample ID: **DW-005K** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 13:21	CPK	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 13:21	CPK	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 13:21	CPK	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 13:21	CPK	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 13:21	CPK	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 13:21	CPK	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 13:21	CPK	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 13:21	CPK	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 13:21	CPK	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 13:21	CPK	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 13:21	CPK	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 13:21	CPK	B
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 13:21	CPK	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 13:21	CPK	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 13:21	CPK	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 13:21	CPK	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 13:21	CPK	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 13:21	CPK	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 13:21	CPK	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 13:21	CPK	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 13:21	CPK	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 13:21	CPK	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 13:21	CPK	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 13:21	CPK	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 13:21	CPK	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 13:21	CPK	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 13:21	CPK	B
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2		10/27/15 13:21	CPK	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 13:21	CPK	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 13:21	CPK	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 13:21	CPK	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 13:21	CPK	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 13:21	CPK	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 13:21	CPK	B

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538001** Date Collected: 10/20/2015 10:45 Matrix: Water
Sample ID: **DW-005K** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 13:21	CPK	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 13:21	CPK	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 13:21	CPK	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 13:21	CPK	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 13:21	CPK	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 13:21	CPK	B
Tetrahydrofuran	2.1J	J	ug/L	2.5	0.81	EPA 524.2			10/27/15 13:21	CPK	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 13:21	CPK	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 13:21	CPK	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 13:21	CPK	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 13:21	CPK	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 13:21	CPK	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 13:21	CPK	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 13:21	CPK	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 13:21	CPK	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 13:21	CPK	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 13:21	CPK	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 13:21	CPK	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 13:21	CPK	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 13:21	CPK	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 13:21	CPK	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 13:21	CPK	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	94.6		%	70 - 130		EPA 524.2			10/27/15 13:21	CPK	B
4-Bromofluorobenzene (S)	91.7		%	70 - 130		EPA 524.2			10/27/15 13:21	CPK	B
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538002** Date Collected: 10/20/2015 10:50 Matrix: Water
Sample ID: **DW-005J** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	20.3		ug/L	5.0	2.2	EPA 524.2		10/27/15 04:43	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 04:43	CPK	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:43	CPK	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/27/15 04:43	CPK	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 04:43	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 04:43	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 04:43	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:43	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:43	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 04:43	CPK	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 04:43	CPK	A
tert-Butyl Alcohol	646		ug/L	100	28.0	EPA 524.2		10/28/15 01:53	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 04:43	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:43	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 04:43	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:43	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 04:43	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 04:43	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 04:43	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 04:43	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 04:43	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:43	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:43	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 04:43	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:43	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 04:43	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:43	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:43	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:43	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 04:43	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 04:43	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 04:43	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:43	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:43	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538002** Date Collected: 10/20/2015 10:50 Matrix: Water
Sample ID: **DW-005J** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:43	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:43	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:43	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:43	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:43	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 04:43	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 04:43	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:43	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:43	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 04:43	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 04:43	CPK	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:43	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 04:43	CPK	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 04:43	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 04:43	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 04:43	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 04:43	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 04:43	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 04:43	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 04:43	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 04:43	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 04:43	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 04:43	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 04:43	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 04:43	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 04:43	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 04:43	CPK	A
Methyl t-Butyl Ether	0.19J	J	ug/L	0.50	0.090	EPA 524.2		10/27/15 04:43	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 04:43	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 04:43	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 04:43	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 04:43	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 04:43	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 04:43	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538002** Date Collected: 10/20/2015 10:50 Matrix: Water
Sample ID: **DW-005J** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 04:43	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 04:43	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 04:43	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 04:43	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 04:43	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 04:43	CPK	A
Tetrahydrofuran	13.1		ug/L	2.5	0.81	EPA 524.2			10/27/15 04:43	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 04:43	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 04:43	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 04:43	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 04:43	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 04:43	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 04:43	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 04:43	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 04:43	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 04:43	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 04:43	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 04:43	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 04:43	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 04:43	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 04:43	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 04:43	CPK	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.8		%	70 - 130	EPA 524.2			10/28/15 01:53	CPK	B
1,2-Dichlorobenzene-d4 (S)	88.9		%	70 - 130	EPA 524.2			10/27/15 04:43	CPK	A
4-Bromofluorobenzene (S)	81.5		%	70 - 130	EPA 524.2			10/28/15 01:53	CPK	B
4-Bromofluorobenzene (S)	80.2		%	70 - 130	EPA 524.2			10/27/15 04:43	CPK	A

WET CHEMISTRY

Chlorine, Total Residual	0.010J	J	mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538003** Date Collected: 10/20/2015 10:55 Matrix: Water
Sample ID: **DW-005I** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	16.1		ug/L	5.0	2.2	EPA 524.2		10/26/15 19:19	CPK	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/26/15 19:19	CPK	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		10/26/15 19:19	CPK	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		10/26/15 19:19	CPK	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/26/15 19:19	CPK	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/26/15 19:19	CPK	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/26/15 19:19	CPK	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/26/15 19:19	CPK	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/26/15 19:19	CPK	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		10/26/15 19:19	CPK	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/26/15 19:19	CPK	A
tert-Butyl Alcohol	1330		ug/L	250	70.0	EPA 524.2		10/27/15 13:46	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/26/15 19:19	CPK	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/26/15 19:19	CPK	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/26/15 19:19	CPK	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/26/15 19:19	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/26/15 19:19	CPK	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/26/15 19:19	CPK	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/26/15 19:19	CPK	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/26/15 19:19	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/26/15 19:19	CPK	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/26/15 19:19	CPK	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/26/15 19:19	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/26/15 19:19	CPK	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/26/15 19:19	CPK	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/26/15 19:19	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/26/15 19:19	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/26/15 19:19	CPK	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/26/15 19:19	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/26/15 19:19	CPK	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/26/15 19:19	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/26/15 19:19	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/26/15 19:19	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/26/15 19:19	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538003** Date Collected: 10/20/2015 10:55 Matrix: Water
Sample ID: **DW-005I** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/26/15 19:19	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		10/26/15 19:19	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		10/26/15 19:19	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/26/15 19:19	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/26/15 19:19	CPK	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/26/15 19:19	CPK	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/26/15 19:19	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/26/15 19:19	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/26/15 19:19	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/26/15 19:19	CPK	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/26/15 19:19	CPK	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		10/26/15 19:19	CPK	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/26/15 19:19	CPK	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		10/26/15 19:19	CPK	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/26/15 19:19	CPK	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/26/15 19:19	CPK	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/26/15 19:19	CPK	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/26/15 19:19	CPK	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/26/15 19:19	CPK	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/26/15 19:19	CPK	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/26/15 19:19	CPK	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/26/15 19:19	CPK	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/26/15 19:19	CPK	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/26/15 19:19	CPK	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/26/15 19:19	CPK	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/26/15 19:19	CPK	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/26/15 19:19	CPK	A
Methyl t-Butyl Ether	0.20J	J	ug/L	0.50	0.090	EPA 524.2		10/26/15 19:19	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/26/15 19:19	CPK	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/26/15 19:19	CPK	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/26/15 19:19	CPK	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/26/15 19:19	CPK	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/26/15 19:19	CPK	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/26/15 19:19	CPK	A

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538003** Date Collected: 10/20/2015 10:55 Matrix: Water
Sample ID: **DW-005I** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/26/15 19:19	CPK	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/26/15 19:19	CPK	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/26/15 19:19	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/26/15 19:19	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/26/15 19:19	CPK	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/26/15 19:19	CPK	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			10/26/15 19:19	CPK	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/26/15 19:19	CPK	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/26/15 19:19	CPK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/26/15 19:19	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/26/15 19:19	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/26/15 19:19	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/26/15 19:19	CPK	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/26/15 19:19	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/26/15 19:19	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/26/15 19:19	CPK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/26/15 19:19	CPK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/26/15 19:19	CPK	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/26/15 19:19	CPK	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/26/15 19:19	CPK	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/26/15 19:19	CPK	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/26/15 19:19	CPK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	81.7		%	70 - 130		EPA 524.2			10/26/15 19:19	CPK	A
1,2-Dichlorobenzene-d4 (S)	75		%	70 - 130		EPA 524.2			10/27/15 13:46	CPK	B
4-Bromofluorobenzene (S)	83		%	70 - 130		EPA 524.2			10/27/15 13:46	CPK	B
4-Bromofluorobenzene (S)	94.8		%	70 - 130		EPA 524.2			10/26/15 19:19	CPK	A
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538004** Date Collected: 10/20/2015 11:00 Matrix: Water
Sample ID: **DW-005A** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	58.1		ug/L	5.0	2.2	EPA 524.2		10/27/15 05:09	CPK	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 05:09	CPK	B
tert-Amyl methyl ether	3.6		ug/L	0.50	0.15	EPA 524.2		10/27/15 05:09	CPK	B
tert-Amyl Alcohol	56.0		ug/L	5.0	1.6	EPA 524.2		10/27/15 05:09	CPK	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		10/27/15 05:09	CPK	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		10/27/15 05:09	CPK	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 05:09	CPK	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 05:09	CPK	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 05:09	CPK	B
Bromomethane	0.16J	J	ug/L	0.50	0.13	EPA 524.2		10/27/15 05:09	CPK	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		10/27/15 05:09	CPK	B
tert-Butyl Alcohol	1320		ug/L	250	70.0	EPA 524.2		10/28/15 02:19	CPK	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 05:09	CPK	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 05:09	CPK	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 05:09	CPK	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 05:09	CPK	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 05:09	CPK	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		10/27/15 05:09	CPK	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 05:09	CPK	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		10/27/15 05:09	CPK	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 05:09	CPK	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 05:09	CPK	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 05:09	CPK	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		10/27/15 05:09	CPK	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 05:09	CPK	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 05:09	CPK	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 05:09	CPK	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 05:09	CPK	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 05:09	CPK	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		10/27/15 05:09	CPK	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		10/27/15 05:09	CPK	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		10/27/15 05:09	CPK	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 05:09	CPK	B
1,4-Dichlorobenzene	0.15J	J	ug/L	0.50	0.11	EPA 524.2		10/27/15 05:09	CPK	B

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538004** Date Collected: 10/20/2015 11:00 Matrix: Water
Sample ID: **DW-005A** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 05:09	CPK	B
1,1-Dichloroethane	0.23J	J	ug/L	0.50	0.11	EPA 524.2		10/27/15 05:09	CPK	B
1,2-Dichloroethane	4.7		ug/L	0.50	0.15	EPA 524.2		10/27/15 05:09	CPK	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 05:09	CPK	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		10/27/15 05:09	CPK	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 05:09	CPK	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 05:09	CPK	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 05:09	CPK	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 05:09	CPK	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		10/27/15 05:09	CPK	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 05:09	CPK	B
Diisopropyl ether	2.3		ug/L	0.50	0.21	EPA 524.2		10/27/15 05:09	CPK	B
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		10/27/15 05:09	CPK	B
Ethyl Ether	0.50		ug/L	0.50	0.21	EPA 524.2		10/27/15 05:09	CPK	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		10/27/15 05:09	CPK	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		10/27/15 05:09	CPK	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		10/27/15 05:09	CPK	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		10/27/15 05:09	CPK	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		10/27/15 05:09	CPK	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		10/27/15 05:09	CPK	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		10/27/15 05:09	CPK	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		10/27/15 05:09	CPK	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		10/27/15 05:09	CPK	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		10/27/15 05:09	CPK	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		10/27/15 05:09	CPK	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		10/27/15 05:09	CPK	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		10/27/15 05:09	CPK	B
Methyl t-Butyl Ether	324		ug/L	25.0	4.5	EPA 524.2		10/28/15 02:19	CPK	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		10/27/15 05:09	CPK	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		10/27/15 05:09	CPK	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		10/27/15 05:09	CPK	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		10/27/15 05:09	CPK	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		10/27/15 05:09	CPK	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		10/27/15 05:09	CPK	B

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ANALYTICAL RESULTS

Workorder: 2103538 2015-CALVERT CITGO/5977

Lab ID: **2103538004** Date Collected: 10/20/2015 11:00 Matrix: Water
Sample ID: **DW-005A** Date Received: 10/22/2015 20:07

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			10/27/15 05:09	CPK	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			10/27/15 05:09	CPK	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 05:09	CPK	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 05:09	CPK	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			10/27/15 05:09	CPK	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			10/27/15 05:09	CPK	B
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			10/27/15 05:09	CPK	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 05:09	CPK	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			10/27/15 05:09	CPK	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 05:09	CPK	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			10/27/15 05:09	CPK	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			10/27/15 05:09	CPK	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			10/27/15 05:09	CPK	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 05:09	CPK	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			10/27/15 05:09	CPK	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			10/27/15 05:09	CPK	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 05:09	CPK	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			10/27/15 05:09	CPK	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			10/27/15 05:09	CPK	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			10/27/15 05:09	CPK	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			10/27/15 05:09	CPK	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			10/27/15 05:09	CPK	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	86.3		%	70 - 130		EPA 524.2			10/27/15 05:09	CPK	B
1,2-Dichlorobenzene-d4 (S)	78.5		%	70 - 130		EPA 524.2			10/28/15 02:19	CPK	B
4-Bromofluorobenzene (S)	83.1		%	70 - 130		EPA 524.2			10/28/15 02:19	CPK	B
4-Bromofluorobenzene (S)	85.6		%	70 - 130		EPA 524.2			10/27/15 05:09	CPK	B
WET CHEMISTRY											
Chlorine, Total Residual	ND		mg/L	0.10	0.009	S4500ClG-00			10/23/15 10:26	MSA	D

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2103538001	1	DW-005K	EPA 524.2	tert-Butyl Alcohol

This compound was recovered above the calibration range of the instrument. There was no more sample to reanalyze at a dilution. The value given should be considered estimated.

House # 2802

OFF SITE

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

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 #:

2103538

Co. Name: REPSG Inc.

Contact (Report to): James Manuel Phone: 215-729-3220

Address: 6901 Kingsessing Ave
Philadelphia, PA 19142

Bill to (if different than Report to): Same PO#: 11478

Project Name/#: Calvert Citgo/5977 ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. Date Required:
[ ] Rush-Subject to ALS approval and surcharges. Approved By:

Email? [X] -Y jmanuel@REPSG.com
Fax? [ ] -Y No.:

***Container Type	40mL	Poly																					
***Container Size	VOA	500mL																					
*** Preservative	HCL	UP																					

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs by 624.2 inc. Fuel Oxygenates	Residual Chlorine																
1 DW-005K	Post - Filtration	10-20-15	1045	G	DW	2	1																
2 DW-005J	Mid - Carbon 2	10/20/15	1050	G	DW	2	1																
3 DW-005I	Mid - Carbon 1	10/20/15	1055	G	DW	2	1																
4 DW-005A	Pre - Filtration	10/20/15	1100	G	DW	2	1																
5																							
6																							
7																							
8																							

Enter Number of Containers Per Analysis

(completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 3
Therm. ID: 294
No. of Coolers:
Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Michele Jordan

Project Comments: Rmk 10/23 522

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Natalie Griffith	10/22/15	10:55	2. [signature]	10-22	1055
3 [signature]	10-22	1700	4 [signature]	10/22	1700
5 [signature]	10/22	2007	6 [signature] ALS	10/22	2007
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 [ ]

Other

EDDs Required? [X] If yes, format type: EQUIS

DOD Criteria Required?

ALS 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 01-2013