TETRA TECH

November 25, 2014

Erich Weissbart, P.G.
EPA Region 3, Land and Chemicals Division
701 Mapes Road
Fort Meade, MD 20755

RE: Biennial Groundwater Sampling and Analyses for Underground Storage Tank (UST) No. 9 RCRA Corrective Action Permit MDD046279311 Former Appliance Park East Facility, Columbia, MD

Dear Mr. Weissbart:

On behalf of the General Electric Company (GE), this letter presents the results of biennial groundwater monitoring performed by Tetra Tech, Inc. (Tetra Tech) in October 2014 at the UST No. 9 site of the above-referenced facility. This is the first biennial monitoring event under the *Post-Termination Groundwater Sampling and Analyses Plan for Underground Storage Tank No. 9, Site Services Area, Former Appliance Park East Facility, Columbia, Maryland* prepared by Environmental Resources Management, Inc. (ERM) on April 23, 2013 ("2013 Post-Termination SAP") and approved by the United States Environmental Protection Agency (EPA) on May 2, 2013.

The monitoring was conducted following the procedures presented in the 2013 Post-Termination SAP. Tetra Tech obtained water level measurements and collected groundwater samples from monitoring wells ERM-6, ERM-7, ERM-18, TP-6, TP-7, TP-8, TP-11, OBG-17, and OBG-18 on October 22, 2014 (Figure 1); monitoring well ERM-4 could not be gauged or sampled on October 22, 2014 due to rainwater ponding above the well manhole cover, therefore it was sampled on October 30, 2014. The groundwater elevations measured are in the attached Table 1.

Quality assurance/quality control samples consisted of a trip blank of deionized water that was prepared by the laboratory, an equipment rinsate blank collected at monitoring well TP-7 (labeled TP-7EB), and a blind duplicate of TP-7 (labeled TP-170). The samples were submitted to Pace Analytical Services, Inc. in Greensburg, PA for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) analysis by EPA Method 8260. The purge water was contained on-site in two 55-gallon drums; the drums were labeled and covered with secure lids pending proper off-site disposal. A sample of the water in the drum containing purge water from ERM-6, ERM-7 and TP-8 was also submitted to the laboratory for BTEX analysis. The completed groundwater sampling forms and copies the chain-of-custody forms are in Attachment 1. Note that groundwater samples from previous monitoring events were analyzed by Lancaster Laboratories, Inc. using EPA Method 8021B.

The analytical results are in Attachment 1 and are summarized in Table 2. The limit of quantitation (LOQ) for benzene, ethylbenzene, toluene and MTBE was 1 microgram per liter (µg/L) and 3 µg/L for total xylenes. All well sample results were non-detect except for the ERM-6 sample which yielded 4.6 µg/L toluene, 167 µg/L ethylbenzene, and 368 µg/L xylenes. The results indicate that the plume is shrinking since BTEX compounds and/or MTBE were detected in wells ERM-4, ERM-6, ERM-7, TP-7, and TP-8 during the previous 2012

TETRA TECH
51 Franklin Street, Suite 400, Annapolis, MD 21401
Tel 410.990.4607 Fax 410-990-4749 www.tetratech.com

groundwater sampling event. The purge water (Drum S-1) sample results show that the water is not characteristically hazardous.

The concentrations measured at ERM-6 are below the groundwater clean-up goals specified in the 2013 Post-Termination SAP: 5 µg/L for benzene; 700 µg/L for ethylbenzene; 1,000 µg/L for toluene; 10,000 µg/L for xylenes, and 20 µg/L for MTBE. Should the results of the next groundwater sampling event (fall 2016) indicate attainment of the groundwater clean-up goals, GE may perform final verification sampling in accordance with the 2013 Post-Termination SAP to verify attainment of the clean-up goals and request EPA approval to discontinue the post-termination monitoring.

If you have any questions regarding this submittal, please contact me at 410-990-4607 or belssi.chang@tetratech.com.

Sincerely,

Belssi Chang Lee
Project Manager

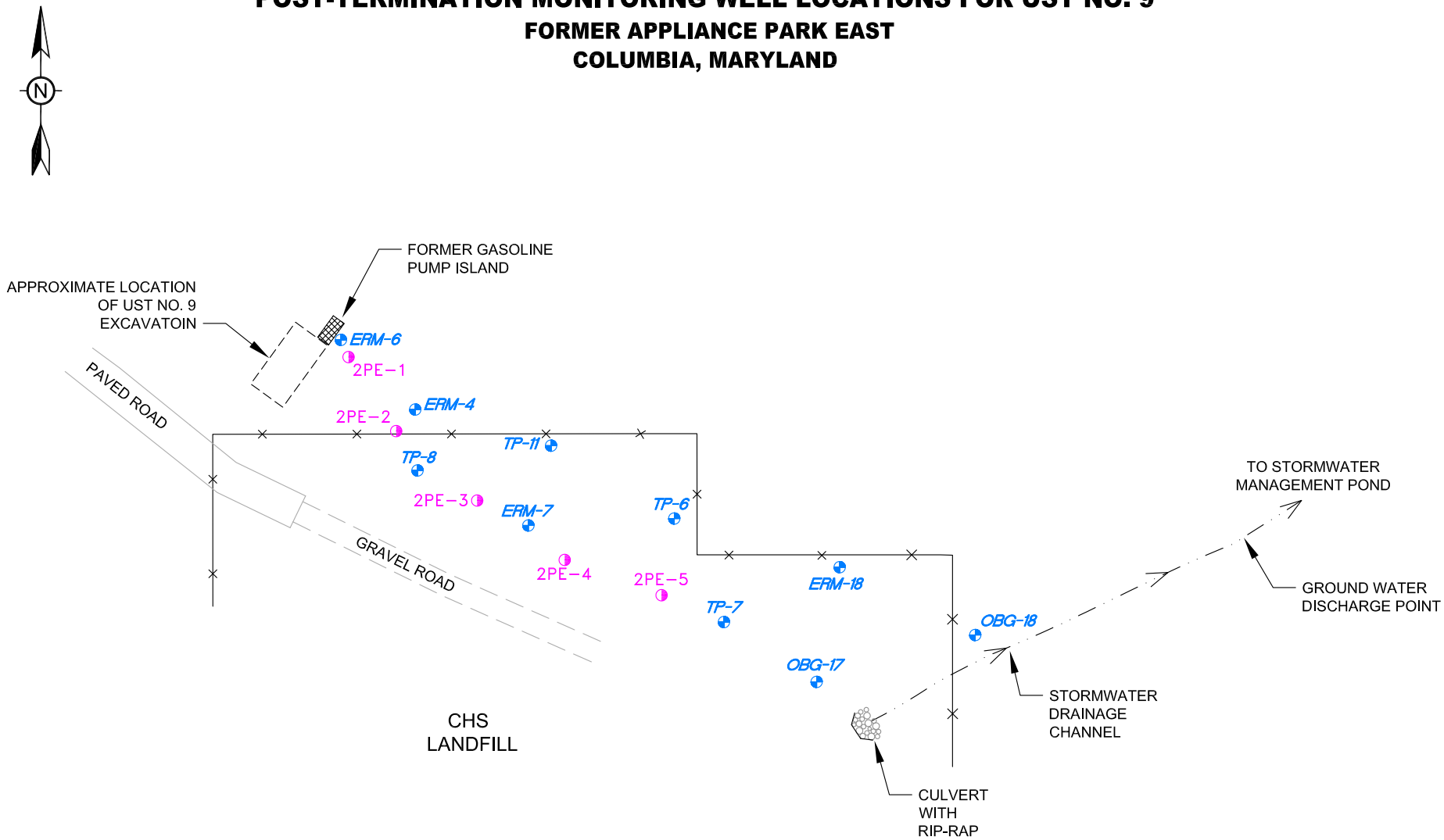
Attachments: Figure 1 – Post-Termination Monitoring Well Locations for UST No. 9
Table 1 – Summary of Ground Water Elevations in Monitoring Wells at UST No. 9
Table 2 – Summary of Analytical Results for Ground Water Samples at UST No. 9
Attachment 1 – Ground Water Sampling Forms and Laboratory Reports

Cc: L. Hauer, GE

FIGURE

2204275006A.DWG

FIGURE 1
POST-TERMINATION MONITORING WELL LOCATIONS FOR UST NO. 9
FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND



LEGEND

2PE-1	2-PHASE WELL LOCATION
ERM-4	POST-TERMINATION MONITORING WELL LOCATION
	FENCE

0 100 200
SCALE IN FEET

BASE MAP SOURCE:
ERM, INC., DECEMBER 2012 REPORT

TETRA TECH

TABLES

Table 1
Summary of Ground Water Elevations in Monitoring Wells at UST No. 9
Former Appliance Park East Facility, Columbia, Maryland

Well ID	Reference Elevation (feet)	Re-Survey Reference Elevation (a), (b) (feet)	1/20/1998		5/14/1998		10/29/1998		4/29/1999		10/28/1999		4/27/2000		10/26/2000	
			Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)
ERM-4	359.96	--	22.00	337.96	18.29	341.67	21.57	338.39	21.53	338.43	21.37	338.59	20.15	339.81	21.51	338.45
ERM-6	360.62	--	22.39	338.23	18.67	341.95	21.92	338.70	21.9	338.72	21.68	338.94	20.64	339.98	21.85	338.77
ERM-7	366.30	--	28.54	337.76	24.95	341.35	28.21	338.09	28.1	338.20	27.93	338.37	26.70	339.60	28.18	338.12
ERM-18	351.10	--	16.75	334.35	13.78	337.32	16.72	334.38	16.24	334.86	16.02	335.08	14.72	336.38	16.54	334.56
TP-6	359.18	--	21.93	337.25	18.42	340.76	21.53	337.65	21.44	337.74	21.27	337.91	20.05	339.13	21.44	337.74
TP-7	360.60	360.83	23.60	337.00	20.02	340.58	27.71	332.89	23.04	337.56	22.8	337.80	21.59	339.01	23.16	337.67
TP-8	362.14	361.82	24.27	337.87	20.64	341.50	23.8	338.34	23.81	338.33	23.65	338.49	22.44	339.70	23.75	338.39
TP-11	364.51	--	26.72	337.79	23.09	341.42	26.33	338.18	26.25	338.26	26.03	338.48	24.88	339.63	26.27	338.24
OBG-17	351.96	--	17.76	334.20	14.20	337.76	17.50	334.46	17.20	334.76	17.13	334.83	15.57	336.39	17.40	334.56
OBG-18	349.14	--	12.27	336.87	11.29	337.85	15.45	333.69	12.25	336.89	12.25	336.89	11.14	338.00	14.30	334.84

(a) The stickup for TP-7 was damaged during site maintenance. It has been repaired and re-surveyed. The correct survey elevation is 360.83 feet as of October 2000.
(b) The stickup for TP-8 was damaged during site maintenance in October 2006. It was been repaired and re-surveyed in February 2007. Elevation is 361.82.
(c) ERM-4 could not be gauged on 10/22/2014 as the manhole cover was under 6 inches of rainwater. The well was gauged on 10/30/2014.
NM - Not Measured

Table 1
Summary of Ground Water Elevations in Monitoring Wells at UST No. 9
Former Appliance Park East Facility, Columbia, Maryland

Well ID	Reference Elevation (feet)	Re-Survey Reference Elevation (a), (b) (feet)	5/1/2001		10/18/2001		5/9/2002		10/24/2002		11/10/2004		10/30/2006		11/7/2008	
			Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)
ERM-4	359.96	--	21.24	338.72	22.34	337.62	22.76	337.20	23.25	336.71	21.02	338.94	NM	--	22.65	337.31
ERM-6	360.62	--	21.66	338.96	22.73	337.89	23.15	337.47	23.45	337.17	21.37	339.25	22.03	338.59	23.05	337.57
ERM-7	366.30	--	27.76	338.54	28.90	337.40	29.33	336.97	29.81	336.49	27.53	338.77	28.23	338.07	29.15	337.15
ERM-18	351.10	--	15.91	335.19	17.33	333.77	17.30	333.80	17.98	333.12	15.98	335.12	16.41	334.69	17.37	333.73
TP-6	359.18	--	21.10	338.08	22.29	336.89	22.63	336.55	23.16	336.02	21.02	338.16	21.58	337.60	22.53	336.65
TP-7	360.60	360.83	22.82	338.01	24.10	336.73	24.44	336.39	24.99	335.84	22.81	338.02	23.29	337.54	24.32	336.51
TP-8	362.14	361.82	23.48	338.66	24.61	337.53	25.00	337.14	25.53	336.61	23.25	338.89	23.94	338.20	24.50	337.32
TP-11	364.51	--	29.99	334.52	27.16	337.35	27.57	336.94	27.82	336.69	25.90	338.61	26.42	338.09	27.28	337.23
OBG-17	351.96	--	16.77	335.19	18.25	333.71	18.14	333.82	18.77	333.19	16.63	335.33	17.15	334.81	18.18	333.78
OBG-18	349.14	--	12.32	336.82	15.39	333.75	12.99	336.15	14.59	334.55	14.33	334.81	13.12	336.02	15.42	333.72

Table 1
Summary of Ground Water Elevations in Monitoring Wells at UST No. 9
Former Appliance Park East Facility, Columbia, Maryland

Well ID	Reference Elevation (feet)	Re-Survey Reference Elevation (a), (b) (feet)	11/15/2010		10/23/2012		10/22/2014 (c)	
			Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)	Depth to Ground Water (feet)	Ground Water Elevation (feet)
ERM-4	359.96	--	21.68	338.28	22.67	337.29	21.75	338.21
ERM-6	360.62	--	22.12	338.50	23.06	337.56	21.15	339.47
ERM-7	366.30	--	28.21	338.09	29.17	337.13	28.26	338.04
ERM-18	351.10	--	16.30	334.80	17.40	333.70	16.30	334.80
TP-6	359.18	--	21.67	337.51	22.56	336.62	21.65	337.53
TP-7	360.60	360.83	23.45	337.38	23.47	337.36	22.81	338.02
TP-8	362.14	361.82	23.55	338.27	24.48	337.34	23.54	338.28
TP-11	364.51	--	26.43	338.08	27.31	337.20	26.40	338.11
OBG-17	351.96	--	17.15	334.81	18.23	333.73	17.16	334.80
OBG-18	349.14	--	13.58	335.56	15.96	333.18	14.74	334.40

Table 2
Summary of Analytical Results for Ground Water Samples at UST No. 9
Former Appliance Park East Facility, Columbia, Maryland

Well ID	ERM-4																						
Analytes (ug/L)	**11/11/96**	**3/17/97**	**6/10/97**	**9/10/97**	**11/24/97**	**1/20/98**	**5/14/98**	**10/29/98**	**4/29/99**	**10/28/99**	**4/27/00**	**10/26/00**	**5/1/01**	**10/18/01**	**5/9/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/7/08**	**11/15/10**	**10/23/12**	**10/30/14**
Benzene	**110**	**410**	**130**	**70**	**70**	< 1	< 1	**160**	<1	<1	<1	**84**	<1	**61**	<1	**21**	**<1**	<1	<1	<1	**1.3**	<1
Toluene	**510**	**1,800**	**170**	**4**	**67**	< 1	< 1	**100**	<1	<1	<1	**370**	<1	**300**	<1	**94**	**6.2**	<1	**6.7**	<1	**2.9**	<1
Ethylbenzene	**42**	**400**	**71**	**23**	**23**	< 1	< 1	**74**	<1	<1	<1	**96**	<1	**130**	<1	**46**	**1.9**	<1	**13**	<1	**42**	<1
Xylene	**190**	**1,500**	**250**	**29**	**110**	< 3	< 3	**160**	<3	<3	<3	**380**	<3	**350**	<3	**92**	**5.8**	<3	**46**	<3	**83**	<3
MTBE	**7**	**30**	**18**	**3**	**7**	< 1	< 1	<5	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	**4.0**	<1
Field Measurements																							
pH (standard units)	---	---	---	---	---	5.29	5.39	5.2	5.45	5.62	5.39	5.34	5.30	5.40	6.29	5.54	6.36	5.71	6.44	5.41	5.86	5.08
Conductivity*	---	---	---	---	---	116	90	218	105	114	122	187	115	251	137	280	188	162	203	183	210	200
Temperature (Celsius)	---	---	---	---	---	11.9	14.2	15.8	16.2	17.4	12.0	15.4	14.3	13.7	16.3	12.9	15.0	16.8	17.9	15.2	16.3	14.28

Well ID	ERM-6																						
Analytes (ug/L)	**11/11/96**	**3/17/97**	**6/10/97**	**9/10/97**	**11/24/97**	**1/20/98**	**5/14/98**	**5/14/98 PE**	**10/29/98**	**4/29/99**	**10/28/99**	**4/27/00**	**10/26/00**	**5/1/01**	**10/18/01**	**5/9/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/7/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**760**	**890**	NS	NS	**50**	**16**	**140**	**210**	<50	**180**	**550**	**290**	**180**	**94**	**28**	**87**	**22**	<10	<10	**5.9**	<5	**5.4**	<1
Toluene	**6,600**	**17,000**	NS	NS	**4,300**	**1,600**	**2,100**	**2,800**	**260**	**820**	**720**	**690**	**590**	**550**	**390**	**460**	**220**	**360**	**210**	**65**	**38**	**6**	**4.6**
Ethylbenzene	**1,400**	**2,300**	NS	NS	**1,300**	**1,000**	**1,500**	**1,500**	**1,200**	**1,600**	**1,700**	**1,600**	**1,200**	**1,700**	**960**	**1,500**	**870**	**640**	**680**	**260**	**340**	**48**	**167**
Xylene	**5,800**	**1,300**	NS	NS	**7,600**	**5,500**	**7,300**	**8,200**	**2,700**	**5,600**	**6,200**	**5,700**	**4,200**	**7,000**	**2,800**	**4,600**	**3,000**	**1,900**	**2,100**	**830**	**1,100**	**170**	**368**
MTBE	**1,100**	**80**	NS	NS	**9**	**7**	< 50	< 50	<10	<50	<50	<50	<50	<50	<5	**90**	<5	15	<20	**12**	<20	**6**	<1
Field Measurements																							
pH (standard units)	---	---	---	---	---	5.89	6.50	---	6.45	6.51	6.56	6.38	6.54	6.37	7.70	6.97	5.91	7.22	6.46	6.33	5.97	6.11	6.44
Conductivity*	---	---	---	---	---	315	300	---	333	466	528	563	445	505	520	433	617	471	511	462	360	435	312
Temperature (Celsius)	---	---	---	---	---	12.9	14.8	---	16.4	14.7	16.5	13.1	16.2	15.2	15.2	16.1	14	15.5	17.1	18.2	15.8	17.4	15.36

Well ID	ERM-7																					
Analytes (ug/L)	**11/12/96**	**3/17/97**	**6/10/97**	**9/10/97**	**11/24/97**	**1/20/98**	**5/14/98**	**10/29/98**	**4/29/99**	**10/28/99**	**4/27/00**	**10/26/00**	**5/1/01**	**10/18/01**	**5/9/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/7/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**1,200**	**190**	**210**	**58**	**82**	**140**	**45**	**99**	**130**	**110**	<1	**380**	**320**	**250**	**630**	**290**	**45**	**12**	**1.8**	<1	**1.5**	<1
Toluene	**2,300**	**110**	**110**	**5**	**3**	**7**	**1**	**4**	**17**	**13**	<1	**440**	**68**	**320**	**1,300**	**330**	**37**	**300**	**1.1**	<1	<1	<1
Ethylbenzene	**540**	**76**	**68**	**13**	**15**	**36**	**8**	**26**	**89**	**85**	<1	**490**	**360**	**350**	**1,000**	**870**	**160**	**270**	**53**	**5**	**23**	<1
Xylene	**1,900**	**210**	**150**	**11**	**5**	< 20	< 3	**11**	**19**	**22**	<3	**530**	**260**	**510**	**1,800**	**790**	**98**	**400**	<3.0	<3.0	<3.0	<3
MTBE	**70**	**11**	**17**	**10**	**15**	**23**	**8**	<20	**22**	<20	<1	<50	<50	<1	**32**	<5	<2.0	<20.0	**1.6**	**1.1**	**1.7**	<1
Field Measurements																						
pH (standard units)	---	---	---	---	---	5.85	5.26	5.38	5.95	5.79	5.09	5.94	5.71	6.00	6.26	5.91	5.74	5.91	5.79	5.00	6.06	5.11
Conductivity*	---	---	---	---	---	363	190	374	353	327	39	217	279	229	306	419	168	156	129	168	169	128
Temperature (Celsius)	---	---	---	---	---	11.7	14.3	13.6	14.2	13.6	12.3	14.0	14.9	15.2	13.9	12.27	13.4	14.9	16.6	14.8	15.03	13.64

Well ID	ERM-18																				
Analytes (ug/L)	**11/12/96**	**11/24/97**	**1/20/98**	**5/14/98**	**5/14/98 PE**	**10/29/98**	**4/29/99**	**10/28/99**	**4/27/00**	**10/26/00**	**5/1/01**	**10/18/01**	**5/9/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/7/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**2**	< 1	**6**	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	< 1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	< 1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<3	< 3	< 3	< 3	< 3	< 3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE	**3**	**2**	**7**	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																					
pH (standard units)	---	---	5.65	5.88	---	5.58	5.75	5.79	5.77	5.58	5.92	5.20	5.64	5.5	5.36	5.73	5.45	5.57	5.48	5.46
Conductivity*	---	---	145	105	---	112	175	196	191	159	24.4	145	168	231	111	164.1	190	236	200	193
Temperature (Celsius)	---	---	11.4	13.9	---	15.8	12.8	16	11.1	15.4	12.4	16.4	13.7	13.2	12.4	15.9	17.7	15.8	17.1	15.69

Notes:

ug/L - micrograms per liter
MTBE - Methyl tertiary-butyl ether
* micromhos per second

< signifies not detected at the detection limit.
BMQL - Below Method Quantitation Limit

MCLs - Benzene 5 ug/L; Ethylbenzene 700 ug/L; Toluene 1,000 ug/L; Xylenes 10,000 ug/L.
(a) TP-170 is a blind field duplicate of TP-7

Analyses performed by Pace Analytical Services, Inc. by EPA Method SW 846-8260 starting in 2014. Analyses prior to 2014 performed by Lancaster Laboratories, Inc. using EPA Method SW 846-8021B.
ERM-4 sampled on 10/30/14 and not on10/22/14 when the other UST-9 monitoring wells were sampled due to its manhole cover being under 6 inches of rainwater on 10/22/14.

Table 2
Summary of Analytical Results for Ground Water Samples at UST No. 9
Former Appliance Park East Facility, Columbia, Maryland

Well ID	TP-6																		
Analytes (ug/L)	**11/12/96**	**11/24/97**	**01/20/98**	**05/14/98**	**10/29/98**	**04/29/99**	**10/28/99**	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**16**	**120**	**100**	**110**	**25**	**24**	**23**	**6.2**	<1	<1	<1	**1.7**	**2.5**	<1	**4.8**	<1	<1	<1	<1
Toluene	**2**	**19**	**6**	**9**	**1**	BMQL	**1.1**	<1	<1	<1	<1	<1	**1.1**	<1	**3.0**	<1	<1	<1	<1
Ethylbenzene	**4**	**30**	**25**	**31**	**8**	**7**	**6.4**	<1	<1	<1	<1	**3.7**	**2.5**	<1	**33**	<1	<1	<1	<1
Xylene	<3	**18**	**3**	**24**	<3	BMQL	<3	<3	<3	<3	<3	<3	<3	<3	**14**	<3	<3	<3	<3
MTBE	**11**	**36**	**37**	**29**	**7**	**6**	**9.4**	**3.4**	**1.5**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																			
pH (standard units)	---	---	5.19	5.28	5.32	5.7	5.27	5.03	5.17	4.81	5.60	5.78	4.98	5.17	5.20	5.41	4.99	5.05	4.91
Conductivity*	---	---	207	130	122	169	179	163	131	249	202	324	385	179	218	184	173	338	284
Temperature (Celsius)	---	---	10.8	13.4	13	13.5	12.4	11.3	13.2	14.2	12.2	13.3	10.33	11.4	14.9	16.4	15.3	15.7	13.15

Well ID	TP-7 (a)																						
Analytes (ug/L)	**11/12/96**	**03/17/97**	**06/10/97**	**09/10/97**	**11/24/97**	**01/20/98**	**05/14/98**	**5/14/98 PE**	**10/29/98**	**04/29/99**	**10/28/99**	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**550**	**520**	**380**	**190**	**150**	**170/170**	**35/38**	< 1	**26/30**	**13/13**	**4.6/4.7**	**8.9/8.0**	**6.1/5.7**	**13/12**	**15/15**	**24/23**	**24/27**	**1.8/1.8**	**10/9.8**	**2.3/2.4**	<1/<1	<1<1	<1<1
Toluene	**150**	**32**	<1	**10**	**8**	**8/8**	**1/1**	< 1	BMQL/<1	BMQL/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	**1.1/<1**	**1.1/1.1**	<1/<1	**3.1/3.0**	<1/<1	<1/<1	<1/<1	<1/<1
Ethylbenzene	**110**	**120**	**88**	**49**	**41**	**42/43**	**6/6**	< 1	**3/3**	BMQL/<1	<1/<1	**22/19**	**1.4/1.4**	**9.2/8.5**	**6.9/6.2**	**10/9.9**	**8/8.1**	<1/<1	**99/95**	**14/14**	<1/<1	**2.2/2.2**	<1/<1
Xylene	**130**	**70**	**15**	**5**	< 5	<10/<10	<3/<3	< 3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	**29/28**	<3/<3	<3/<3	<3/<3	<3/<3
MTBE	**77**	**48**	**35**	**21**	**20**	**21/22**	**4/<5**	< 1	**5/6**	**2/3**	**1.9/1.5**	**<1/1.8**	**2.1/2.1**	<5/<5	**1.6/1.5**	**3.4/3.7**	<5/<5	<1/<1	**<5/1.6**	<1/<1	<1/<1	<1/<1	<1/<1
Field Measurements																							
pH (standard units)	---	---	---	---	---	5.49	5.68	---	5.39	5.42	4.98	4.93	5.40	4.75	6.10	5.29	5.55	5.78	5.45	5.34	4.13	5.2	4.96
Conductivity*	---	---	---	---	---	120	120	---	108	149	94	98	125	118	117	166	226	112	89	106	73	78	77
Temperature (Celsius)	---	---	---	---	---	12.3	13.4	---	17.4	14.5	14.3	11.9	14.3	14	12.9	13.8	11.11	13.4	15.6	17.5	15.2	15.46	14.12

Well ID	TP-8																					
Analytes (ug/L)	**11/11/96**	**03/17/97**	**06/10/97**	**09/10/97**	**11/24/97**	**01/20/98**	**05/14/98**	**10/29/98**	**04/29/99**	**10/28/99**	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**480**	<1	<1	<1	< 1	< 1	**48**	**170**	**160**	**77**	**61**	**60**	**49**	**44**	**38**	**26**	**9.2**	NS	**3.5**	**5.8**	**2.4**	<1
Toluene	**2,500**	<1	<1	<1	< 1	< 1	**44**	**500**	**230**	**26**	**85**	**200**	**21**	**71**	**320**	**150**	**1.9**	NS	**2.2**	**2.5**	**1.3**	<1
Ethylbenzene	**570**	<1	<1	<1	< 1	< 1	**31**	**230**	**240**	**130**	**190**	**310**	**320**	**320**	**240**	**240**	**43**	NS	**47**	**31**	**4.5**	<1
Xylene	**2,300**	<3	<3	<3	< 3	< 3	**140**	**1,400**	**650**	**190**	**530**	**720**	**340**	**700**	**700**	**530**	**11**	NS	**72**	**42**	**6.4**	<3
MTBE	<200	<1	<1	<1	< 1	< 1	< 5	<50	<20	<10	<10	<10	<20	<1	<5	<1	<1	NS	**2.8**	**8.3**	**2.8**	<1
Field Measurements																						
pH (standard units)	---	---	---	---	---	5.28	5.09	4.97	5.36	5.07	5.13	5.21	5.16	5.90	5.76	5.59	5.92	--	5.58	5.66	6.11	5.54
Conductivity*	---	---	---	---	---	104	140	416	249	210	280	264	244	251	226	259	170	--	188	208	291	226
Temperature (Celsius)	---	---	---	---	---	12.6	14.5	14.6	14.4	14.1	12.9	14.3	18	14.5	14.5	11.83	13.6	--	17.0	15.0	17.2	13.83

Well ID	TP-11																		
Analytes (ug/L)	**11/12/96**	**11/24/97**	**01/20/98**	**05/14/98**	**10/29/98**	**04/29/99**	**10/28/99**	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	**23**	< 1	< 1	< 1	**2**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	**51**	< 1	< 1	< 1	BMQL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	**6**	< 1	< 1	< 1	**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	**29**	< 3	< 3	< 3	BMQL	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE	<1	< 1	< 1	< 1	BMQL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																			
pH (standard units)	---	---	5.02	5.58	4.97	5.36	3.94	5.05	4.93	4.87	5.70	5.42	4.91	5.62	5.17	5.06	4.85	5.05	5.18
Conductivity*	---	---	103	60	205	87	155	116	118	78	108	109	112	98	115	96	202	211	255
Temperature (Celsius)	---	---	12.6	13.4	13.6	13.6	13.9	10.9	14.4	13.7	12.3	13.7	11.5	12.8	15.6	17.4	14.7	16	13.0

Notes:

ug/L - micrograms per liter
MTBE - Methyl tertiary-butyl ether
BMQL - Below Method Quantitation Limit

< signifies not detected at the detection limit.
* micromhos per second.
(a) TP-170 is a blind field duplicate of TP-7.

MCLs - Benzene 5 ug/L; Ethylbenzene 700 ug/L; Toluene 1,000 ug/L; Xylenes 10,000 ug/L.
NS - TP-8 casing was damaged and not sampled on 11/16/06.

Analyses performed by Pace Analytical Services, Inc. by EPA Method SW 846-8260 starting in 2014. Analyses prior to 2014 performed by Lancaster Laboratories, Inc. using EPA Method SW 846-8021B.

Table 2
Summary of Analytical Results for Ground Water Samples at UST No. 9
Former Appliance Park East Facility, Columbia, Maryland

Well ID	OBG-17																		
Analytes (ug/L)	**11/11/96**	**11/24/97**	**01/20/98**	**05/14/98**	**10/29/98**	**04/29/99**	**10/28/99**	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<3	< 3	< 3	< 3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE	<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																			
pH (standard units)	---	---	5.21	5.34	5.02	5.56	5.70	5.21	5.18	5.37	6.00	5.60	5.28	5.92	5.12	5.51	5.66	6.19	6.09
Conductivity*	---	---	291	440	542	336	321	654	440	355	217	208	214	588	638	655	741	649	839
Temperature (Celsius)	---	---	12.2	13.1	17.9	13.0	15.7	10.6	15.6	15.1	14.1	14.7	13.83	15.2	15.8	18.6	15.5	16.3	14.99

Well ID	OBG-18																			
Analytes (ug/L)	**11/12/96**	**11/24/97**	**01/20/98**	**05/14/98**	**5/14/98 PB**	**10/29/98**	**04/29/99**	**10/28/99**	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<3	< 3	< 3	< 3	< 3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE	<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																				
pH (standard units)	---	---	5.42	5.22	---	4.95	5.38	5.35	5.41	5.61	5.60	6.00	5.93	5.4	6.71	6.05	5.93	5.67	6.13	6.33
Conductivity*	---	---	223	240	---	287	317	293	199	190	222	153	149	168	260	161	221	287	300	284
Temperature (Celsius)	---	---	9.2	15.1	---	17	14.3	17.1	10.8	16.7	12.3	17.4	13.5	14.2	12.8	16.8	18.8	16.9	18.32	16.56

Purge Water Sample	Drum S-1											
Analytes (ug/L)	**04/27/00**	**10/26/00**	**05/01/01**	**10/18/01**	**05/09/02**	**10/24/02**	**11/10/04**	**11/16/06**	**11/07/08**	**11/15/10**	**10/23/12**	**10/22/14**
Benzene	87	48	79	13	8.3	13.4	7.2	6.5	1.3	1.9	1.8	<1
Toluene	200	160	150	150	76	69	220	280	35	16	3.1	3.2
Ethylbenzene	410	330	270	320	270	272	320	370	180	130	38	111
Xylene	1,600	1,200	900	970	940	917	920	890	460	350	130	258
MTBE	---	---	---	---	---	---	---	<10	---	---	---	---

Notes:

ug/L - micrograms per liter
MTBE - Methyl tertiary-butyl ether
BMQL - Below Method Quantitation Limit

< signifies not detected at the detection limit.
* micromhos per second.
(a) TP-170 is a blind field duplicate of TP-7.

MCLs - Benzene 5 ug/L; Ethylbenzene 700 ug/L; Toluene 1,000 ug/L; Xylenes 10,000 ug/L.
NS - TP-8 casing was damaged and not sampled on 11/16/06.

Analyses performed by Pace Analytical Services, Inc. by EPA Method SW 846-8260 starting in 2014. Analyses prior to 2014 performed by Lancaster Laboratories, Inc. using EPA Method SW 846-8021B.

ATTACHMENT 1

GROUND WATER SAMPLING FORMS AND LABORATORY REPORTS

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. OBG-18
2. Location GE UST-9
3. Well No. OBG-18
4. Well Depth (ft. below TOC) 19.91
5. Screen Length (ft.) 10'
6. Sampling Crew Dave Seaman / Chuck Drew
7. Weather: Wind 10 mph Air Temp. 52° Precip. Rain
8. Water Level Measurement (ft. TOC): 14.74
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 349.14
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 2" Gal/Ft 0.163
11. Total Depth 19.91 - Depth to Water 14.74 = Ht. 5.17
12. Well Volume 0.84 gal. = Ht. 5.17 x Gal/Ft. 0.163
13. Required Purge Volume 2.60 Actual Purge Volume 2.60
14. Purge Method/Sampling Method BAILER
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	0930	0	16.15	0.304	6.37
		1	16.53	0.279	6.32
		2	16.54	0.284	6.32
Sample	0950	2.6	16.56	0.284	6.33

DTW 17.01

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By Dave Seaman Date/Time 10/22/14 0955

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. ERM-18
2. Location GE UST-9
3. Well No. ERM-18
4. Well Depth (ft. below TOC) 26.25
5. Screen Length (ft.) 15'
6. Sampling Crew D. Seaman, C. Drew
7. Weather: Wind 10 mph Air Temp. 53° Precip. Rain
8. Water Level Measurement (ft. TOC): 16.30
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 351.1
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 4" Gal/Ft 0.657
11. Total Depth 26.25 - Depth to Water 16.30 = Ht. 9.95
12. Well Volume 6.62 gal = Ht. 9.95 x Gal/Ft. 0.657
13. Required Purge Volume 20 Gal. Actual Purge Volume 20 Gal.
14. Purge Method/Sampling Method PUMP
15.

	Time	Gallons	Temperature	Conductivity ms/cm	pH
Initial	1000	0	15.04	0.209	5.65
		6	15.46	0.192	5.59
		13	15.56	0.207	5.54
Sample	1015	20	15.69	0.193	5.46

DTW 16.40

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? N Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By [signature] Date/Time 10/22/14 1018

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. OBG-17
2. Location GE UST-9
3. Well No. OBG-17
4. Well Depth (ft. below TOC) 20.83
5. Screen Length (ft.) 10'
6. Sampling Crew D. Seaman / C. Drews
7. Weather: Wind 10 MPH Air Temp. 54° Precip. Rain
8. Water Level Measurement (ft. TOC): 17.16
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 351.96
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 2" Gal/Ft 0.163
11. Total Depth 20.83 - Depth to Water 17.16 = Ht. 3.67
12. Well Volume .60 gal = Ht. 3.67 x Gal/Ft. 0.163
13. Required Purge Volume 1.80 gal Actual Purge Volume 1.5 DRY
14. Purge Method/Sampling Method BAILER
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	1035	0	15.50	0.764	5.95
		0.6 gal	15.49	0.520	6.03
		1.2 gal	15.51	0.849	6.00
		1.5 DRY			
Sample	1050	1.5	14.99	0.839	6.09

DTW (~~[illegible]~~) 20.50

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By Dan Sea Date/Time 10/22/14 1054

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. TP-7
2. Location GE UST-9
3. Well No. TP-7
4. Well Depth (ft. below TOC) 46.75
5. Screen Length (ft.) 20'
6. Sampling Crew D. Seaman C. Drevo
7. Weather: Wind 10 MPH Air Temp. 54° Precip. RAIN
8. Water Level Measurement (ft. TOC): 22.81
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 360.8
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 2" Gal/Ft 0.163
11. Total Depth 46.75 - Depth to Water 22.81 = Ht. 23.94
12. Well Volume 3.90 gal = Ht. 23.94 x Gal/Ft. 0.163
13. Required Purge Volume 11.70 Actual Purge Volume
14. Purge Method/Sampling Method BAILER
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	1115	0	14.91	0.055	5.00
		4	14.27	0.069	4.72
		8	13.97	0.074	4.88
		12			
Sample	1130	12	14.12	0.077	4.96

DTW 23.47

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? YES - BLIND DUPE (TP-170) 1140, EQUIP RINSATE BLANK (TP-7EB) 1150
19. Reviewed By [signature] Date/Time 10/22/14 1134

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. TP-11
2. Location GE UST-9
3. Well No. TP-11
4. Well Depth (ft. below TOC) 47.70
5. Screen Length (ft.) 20'
6. Sampling Crew D. Seaman / C. Drevo
7. Weather: Wind 10 mph Air Temp. 56° Precip. Rain
8. Water Level Measurement (ft. TOC): 26.40
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 364.51
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 2" Gal/Ft 0.163
11. Total Depth 47.70 - Depth to Water 26.40 = Ht. 21.30
12. Well Volume 3.47 = Ht. 21.30 x Gal/Ft. 0.163
13. Required Purge Volume 10.42 Actual Purge Volume 10.50
14. Purge Method/Sampling Method BAILER
15.

	Time	Gallons	Temperature	Conductivity	pH	
Initial	1200	0	13.58	0.181	5.22	
		3.5	13.05	0.242	5.06	
		7.0	13.10	0.254	5.00	
						DTW
Sample	1230	10.5	13.00	0.255	5.18	26.43

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By Dan Sea Date/Time 10/22/14 12 33

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. TP-6
2. Location GE UST-9
3. Well No. TP-6
4. Well Depth (ft. below TOC) 43.80
5. Screen Length (ft.) 20'
6. Sampling Crew D. Seaman / C. Provo
7. Weather: Wind 20 Air Temp. 50° Precip. Rain
8. Water Level Measurement (ft. TOC): 21.65
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 359.18
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 2" Gal/Ft 0.163
11. Total Depth 43.80 - Depth to Water 21.65 = Ht. 22.15
12. Well Volume 3.61 gal. = Ht. 22.15 x Gal/Ft. 0.163
13. Required Purge Volume 10.83 Actual Purge Volume 11
14. Purge Method/Sampling Method BAILER
15.

	Time	Gallons	Temperature	Conductivity	pH	
Initial	1240	0	13.85	0.059	5.29	
		3.5	13.25	0.342	4.79	
		7.0	13.02	0.297	4.89	
				~~0.2~~		DTW
Sample	1310	11.0	13.15	0.284	4.91	21.68

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By [signature] Date/Time 10/22/14 1315

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. TP-8
2. Location GE UST-9
3. Well No. TP-8
4. Well Depth (ft. below TOC) 44.70
5. Screen Length (ft.) 20'
6. Sampling Crew D. Seaman / C. Drew
7. Weather: Wind 15 mph Air Temp. 50° Precip. Rain
8. Water Level Measurement (ft. TOC): 23.54
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 362.14
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 2" Gal/Ft 0.163
11. Total Depth 44.70 - Depth to Water 23.54 = Ht. 21.16
12. Well Volume 3.45 = Ht. 21.16 x Gal/Ft. 0.163
13. Required Purge Volume 10.35 Actual Purge Volume 10.5
14. Purge Method/Sampling Method BAILER
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	1320	0	14.19	0.038	5.08
		3.5	13.69	0.188	5.03
		7.0	13.64	0.219	5.43
Sample	1350	10.5	13.83	0.226	5.54

DTW 23.55

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By [signature] Date/Time 10/22/14 1355

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. ERM-7
2. Location GE UST-9
3. Well No. ERM-7
4. Well Depth (ft. below TOC) 36.32
5. Screen Length (ft.) 20'
6. Sampling Crew D. Seamen / C. Drevo
7. Weather: Wind 15 mph Air Temp. 50° Precip. Rain
8. Water Level Measurement (ft. TOC): 28.26
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 366.3
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 4" Gal/Ft 0.657
11. Total Depth 36.32 - Depth to Water 28.26 = Ht. 8.06
12. Well Volume 5.30 = Ht. 8.06 x Gal/Ft. 0.657
13. Required Purge Volume 15.9 Actual Purge Volume 16.0
14. Purge Method/Sampling Method PUMP
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	1400	0	13.43	0.193	5.25
		5.0	13.75	0.137	5.00
		10.5	13.57	0.128	5.29
Sample	1430	16	13.64	0.128	5.11

DTW 29.66

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By Dan Lee Date/Time 10/22/14 1433

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/22/14 Sample No. ERM-6
2. Location GE UST-9
3. Well No. ERM-6
4. Well Depth (ft. below TOC) 31.62
5. Screen Length (ft.) 20'
6. Sampling Crew D. Seaman / C. Drew
7. Weather: Wind 15 mph Air Temp. 50° Precip. Rain
8. Water Level Measurement (ft. TOC): 21.15
   [Y or N] Well Labeled Y Casing Elev. (ft. MSL): 360.62
   Comments
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 4" Gal/Ft 0.657
11. Total Depth 31.62 - Depth to Water 21.15 = Ht. 10.47
12. Well Volume 6.90 = Ht. 10.47 x Gal/Ft. 0.657
13. Required Purge Volume 20.64 Actual Purge Volume 21 Gal.
14. Purge Method/Sampling Method PUMP
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	1435	0	15.01	0.239	6.27
		7	15.43	0.247	6.48
		14	15.44	0.296	6.46
Sample	1455	21	15.36	0.312	6.44

DTW 12.95

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? Y Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By [signature] Date/Time 10/22/14 1500

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

GROUND WATER SAMPLING FORM

1. Date 10/30/14 Sample No. ERM-4
2. Location GE UST-9
3. Well No. ERM-4
4. Well Depth (ft. below TOC) 31.82
5. Screen Length (ft.) 20'
6. Sampling Crew Chuck Drevo / Dave Seaman S+S Tech
7. Weather: Wind 5-10 mph Air Temp. 60°F Precip. None
8. Water Level Measurement (ft. TOC): 21.75

   [Y or N] Well Labeled _____ Casing Elev. (ft. MSL): 359.96

   Comments _____
9. Depth to Hydrocarbon (if present) — Depth to Hydrocarbon/Water Interface — Thickness —
10. Casing Type PVC Diameter 4" Gal/Ft 0.657
11. Total Depth 31.82 - Depth to Water 21.75 = Ht. 10.07
12. Well Volume 6.62 gal = Ht. 10.07 x Gal/Ft. 0.657
13. Required Purge Volume 20 gal Actual Purge Volume 20 gal
14. Purge Method/Sampling Method PUMP
15.

	Time	Gallons	Temperature	Conductivity	pH
Initial	1350	0	14.39	0.221	5.28
	1357	7	14.70	0.207	5.13
	1404	14	14.52	0.197	5.14
Sample	1410	20	14.28	0.200	5.08
~~Sample~~					

16. Analytical Methods BTEX, MTBE
17. [Y or N] Turbid? N Purge Water Containerized? YES
18. QA/QC Samples? NO
19. Reviewed By _____ Date/Time _____

	ERM-4	ERM-6	ERM-7	TP-7	TP-8	ERM-18	OBG-17	OBG-18	TP-6	TP-11
Well Depth (ft. TOC)	32.0	32.5	37.6	47.3	44.5	27.0	18	20	47.0	48.0
Screen Length (ft.)	20.0	20.0	20.0	20.0	20.0	15.0	10.0	10.0	20.0	20.0
Casing Elev. (ft. MSL)	359.96	360.62	366.3	360.83*	362.14	351.1	351.96	349.14	359.18	364.51
Casing Dia. (in.)	4	4	4	2	2	4	2	2	2	2
Gallons/Foot	0.65	0.65	0.65	0.16	0.16	0.65	0.16	0.16	0.16	0.16

Notes: (*) TP-7 was re-surveyed due to damaged well stick-up in Fall 2000. The elevation shown is the correct elevation.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	Tetra Tech GEO
Address:	844 West Street, Suite 100
	Annapolis, MD 21041
Email To:	belssichang@tetratech.com
Phone: 410 990 4607	Fax: 410 90 4749
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Belssi Chang
Copy To:	
Purchase Order No.:	
Project Name:	GE Columbia UST-9
Project Number:	

Section C Invoice Information:

Attention:	Belssi Chang
Company Name:	SAME
Address:	SAME
Pace Quote Reference:	
Pace Project Manager:	Timothy Reed
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW WT
WATER	WW
WASTE WATER	P
PRODUCT	SL
SOIL/SOLID	OL
OIL	WP
WIPE	AR
AIR	OT
OTHER	TS
TISSUE	

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE (2014)	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): EPA 8260 BTEX	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 0132647
1	ERM-18					10-22	1015		3				3					X		001
2	OBG-17						1050		3				3					X		002
3	OBG-18						0950		3				3					X		003
4	~~ERM-4~~ DS								3				3					X		–
5	TP-6						1310		3				3					X		004
6	TP-8						1350		3				3					X		005
7	TP-11						1230		3				3					X		006
8	ERM-7						1430		3				3					X		007
9	TP-7						1130		3				3					X		008
10	TP-7EB						1150		3				3					X		009
11	ERM-6						1455		3				3					X		010
12	~~Equip Blank~~ DS.								3				3					x		–
13	TP-170						1140		3				3					X		011
14	Drum S-1					✓	1500		3				3				DS	X		012
15	TRIP BLANK								2				2					X		013

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
No Data package	Dave Lea	10-22-14	1530	[signature] / Pace	10-23-14	9:40	3.6	Y	N	Y
LOQ is 1 ug/L for all										
Compounds except ~~the~~ xylene										
which is 3 ug/L										

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY):				

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.06, 2-Feb-2007

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: ERM-18 **Lab ID: 30132647001** Collected: 10/22/14 10:15 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 16:07	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 16:07	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 16:07	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 16:07	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 16:07	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	84-113		1		10/28/14 16:07	460-00-4	
1,2-Dichloroethane-d4 (S)	131	%	84-124		1		10/28/14 16:07	17060-07-0	S3
Toluene-d8 (S)	93	%	79-118		1		10/28/14 16:07	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: OBG-17 **Lab ID: 30132647002** Collected: 10/22/14 10:50 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 16:32	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 16:32	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 16:32	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 16:32	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 16:32	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	84-113		1		10/28/14 16:32	460-00-4	
1,2-Dichloroethane-d4 (S)	132	%	84-124		1		10/28/14 16:32	17060-07-0	S3
Toluene-d8 (S)	91	%	79-118		1		10/28/14 16:32	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: OBG-18 **Lab ID: 30132647003** Collected: 10/22/14 09:50 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 16:56	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 16:56	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 16:56	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 16:56	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 16:56	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	86	%	84-113		1		10/28/14 16:56	460-00-4	
1,2-Dichloroethane-d4 (S)	135	%	84-124		1		10/28/14 16:56	17060-07-0	S3
Toluene-d8 (S)	89	%	79-118		1		10/28/14 16:56	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TP-6 **Lab ID: 30132647004** Collected: 10/22/14 13:10 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 17:21	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 17:21	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 17:21	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 17:21	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 17:21	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	85	%	84-113		1		10/28/14 17:21	460-00-4	
1,2-Dichloroethane-d4 (S)	140	%	84-124		1		10/28/14 17:21	17060-07-0	S3
Toluene-d8 (S)	90	%	79-118		1		10/28/14 17:21	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TP-8 **Lab ID: 30132647005** Collected: 10/22/14 13:50 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 17:46	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 17:46	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 17:46	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 17:46	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 17:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	86	%	84-113		1		10/28/14 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	139	%	84-124		1		10/28/14 17:46	17060-07-0	S3
Toluene-d8 (S)	93	%	79-118		1		10/28/14 17:46	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TP-11 **Lab ID: 30132647006** Collected: 10/22/14 12:30 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 18:11	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 18:11	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 18:11	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 18:11	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 18:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	84	%	84-113		1		10/28/14 18:11	460-00-4	
1,2-Dichloroethane-d4 (S)	138	%	84-124		1		10/28/14 18:11	17060-07-0	S3
Toluene-d8 (S)	88	%	79-118		1		10/28/14 18:11	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: ERM-7 **Lab ID: 30132647007** Collected: 10/22/14 14:30 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 18:36	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 18:36	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 18:36	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 18:36	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 18:36	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	84-113		1		10/28/14 18:36	460-00-4	
1,2-Dichloroethane-d4 (S)	136	%	84-124		1		10/28/14 18:36	17060-07-0	S3
Toluene-d8 (S)	96	%	79-118		1		10/28/14 18:36	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TP-7 **Lab ID: 30132647008** Collected: 10/22/14 11:30 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 19:01	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 19:01	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 19:01	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 19:01	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 19:01	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	84-113		1		10/28/14 19:01	460-00-4	
1,2-Dichloroethane-d4 (S)	141	%	84-124		1		10/28/14 19:01	17060-07-0	S3
Toluene-d8 (S)	92	%	79-118		1		10/28/14 19:01	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TP-7EB **Lab ID: 30132647009** Collected: 10/22/14 11:50 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 19:26	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 19:26	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 19:26	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 19:26	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 19:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	84-113		1		10/28/14 19:26	460-00-4	
1,2-Dichloroethane-d4 (S)	144	%	84-124		1		10/28/14 19:26	17060-07-0	S3
Toluene-d8 (S)	87	%	79-118		1		10/28/14 19:26	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: ERM-6 **Lab ID: 30132647010** Collected: 10/22/14 14:55 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 19:51	71-43-2	
Ethylbenzene	**167**	ug/L	1.0	0.12	1		10/28/14 19:51	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 19:51	1634-04-4	
Toluene	**4.6**	ug/L	1.0	0.11	1		10/28/14 19:51	108-88-3	
Xylene (Total)	**368**	ug/L	3.0	0.31	1		10/28/14 19:51	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	84-113		1		10/28/14 19:51	460-00-4	
1,2-Dichloroethane-d4 (S)	129	%	84-124		1		10/28/14 19:51	17060-07-0	S3
Toluene-d8 (S)	90	%	79-118		1		10/28/14 19:51	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TP-170 **Lab ID: 30132647011** Collected: 10/22/14 11:40 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 20:16	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 20:16	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 20:16	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 20:16	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 20:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	84-113		1		10/28/14 20:16	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%	84-124		1		10/28/14 20:16	17060-07-0	S3
Toluene-d8 (S)	93	%	79-118		1		10/28/14 20:16	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: Drum S-1 **Lab ID: 30132647012** Collected: 10/22/14 15:00 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 20:41	71-43-2	
Ethylbenzene	**111**	ug/L	1.0	0.12	1		10/28/14 20:41	100-41-4	
Toluene	**3.2**	ug/L	1.0	0.11	1		10/28/14 20:41	108-88-3	
Xylene (Total)	**258**	ug/L	3.0	0.31	1		10/28/14 20:41	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	86	%	84-113		1		10/28/14 20:41	460-00-4	
1,2-Dichloroethane-d4 (S)	123	%	84-124		1		10/28/14 20:41	17060-07-0	
Toluene-d8 (S)	93	%	79-118		1		10/28/14 20:41	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30132647

Sample: TRIP BLANK **Lab ID: 30132647013** Collected: 10/22/14 00:01 Received: 10/23/14 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		10/28/14 15:42	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		10/28/14 15:42	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		10/28/14 15:42	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		10/28/14 15:42	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		10/28/14 15:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	90	%	84-113		1		10/28/14 15:42	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	84-124		1		10/28/14 15:42	17060-07-0	
Toluene-d8 (S)	93	%	79-118		1		10/28/14 15:42	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1815113

Section A Required Client Information:

Company: Tetra Tech GEO
Address: 844 West St. Suite 100, Annapolis, MD 21041
Email To: belssi.chang@tetratech.com
Phone: 410-990-4607 Fax: 410-990-4749
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Belssi Chang
Copy To:
Purchase Order No.:
Project Name: GE Columbia UST-9
Project Number:

Section C Invoice Information:

Attention: Belssi Chang
Company Name: Same
Address: Same
Pace Quote Reference:
Pace Project Manager: Timothy Reed
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): EPA 8260	Analysis Test (Y/N): BTEX	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	ERM-4					10/30/14	1410		3				3					X			001
2	Trip Blank								2				2						X		002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

30133313

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
- No Data Package	[signature]	10/30/14	1600	[signature] / PACE	10-31-14	10:30	1.2	Y	N	Y
- LOQ is 1 ug/L for all compounds except xylene which is 3 ug/L										

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30133313

Sample: ERM-4 **Lab ID: 30133313001** Collected: 10/30/14 14:10 Received: 10/31/14 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		11/12/14 20:52	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		11/12/14 20:52	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	0.19	1		11/12/14 20:52	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		11/12/14 20:52	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		11/12/14 20:52	1330-20-7	
Surrogates									
Toluene-d8 (S)	98	%	79-118		1		11/12/14 20:52	2037-26-5	
4-Bromofluorobenzene (S)	100	%	84-113		1		11/12/14 20:52	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	84-124		1		11/12/14 20:52	17060-07-0	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: GE Columbia UST-9
Pace Project No.: 30133313

Sample: Trip Blank **Lab ID: 30133313002** Collected: 10/30/14 00:01 Received: 10/31/14 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260B								
Benzene	**<1.0**	ug/L	1.0	0.065	1		11/12/14 13:20	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	0.12	1		11/12/14 13:20	100-41-4	
Toluene	**<1.0**	ug/L	1.0	0.11	1		11/12/14 13:20	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	0.31	1		11/12/14 13:20	1330-20-7	
Surrogates									
Toluene-d8 (S)	96	%	79-118		1		11/12/14 13:20	2037-26-5	
4-Bromofluorobenzene (S)	104	%	84-113		1		11/12/14 13:20	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	84-124		1		11/12/14 13:20	17060-07-0	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..