Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

530 Broadway
Providence, RI 02909
401.421.4140
www.gza.com

September 23, 2015
GZA File No. 05.0043654.00

Via E-Mail and U.S. Mail

Mr. Joseph Martella
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908

Re: Summary of Quarterly Soil Gas Sampling – SG-105S
Former Tidewater Facility
Pawtucket, Rhode Island

Dear Mr. Martella:

On behalf of the Narragansett Electric Company d/b/a National Grid (National Grid), GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the Rhode Island Department of Environmental Management (RIDEM) with a summary of the quarterly soil gas sampling completed between October 2014 and July 2015 at the Former Tidewater Manufactured Gas Plant (MGP) and Power Plant Site located in Pawtucket, Rhode Island (the Site).

This letter report is subject to the Limitations included in Attachment A.

BACKGROUND

Between July and August 2013, GZA completed soil gas sampling and testing at the Site consistent with the RIDEM-approved, May 2013 *Supplemental Site Investigation Work Plan (SSIWP)*. The results of this soil gas sampling and testing were submitted to RIDEM in an October 2013 *Site Investigation Report (SIR) Addendum.* Soil gas samples were collected from both locations within the Site and along the boundary of the Site to assess the quality of soil gas at the Tidewater Site and near neighboring properties. The results indicated that potential migration of impacted soil gas from the Tidewater Site does not pose a risk to the neighboring properties and structures.

As described in the October 2013 *SIR Addendum*, benzene was detected in the shallow soil gas sample identified as SG-105S, collected at a depth of 5 feet below ground surface (bgs). As shown on Figure 1, SG-105S is located proximate to the perimeter of the Site, near the active natural gas regulator station and is located at least 120 feet from an occupied building. Benzene was detected in shallow soil gas collected from SG-105S at a concentration of 1,700 µg/m^3 during the July 2013 sampling event. This soil gas concentration is below the Connecticut Department of Energy and Environmental Protection (CTDEEP) residential criteria and above both the New Jersey Department of Environmental Protection (NJDEP) residential and industrial/commercial screening levels and the Massachusetts Department of Environmental Protection (MADEP)

residential and industrial/ commercial screening levels[1]. The concentration of benzene detected in the deeper (collected at 11 feet bgs) soil gas sample from SG-105D was well below the above-described regulatory screening levels and criteria. To confirm that soil gas was not migrating from SG-105S toward the neighboring buildings, an additional probe (SG-114S) was installed as part of the August 2013 soil gas investigation. As shown on Figure 1, SG-114S is located approximately 75 feet to the south of SG-105S and at least 70 feet from an occupied building. The concentrations detected in the soil gas sample collected from 5 feet bgs at location SG-114S were well below regulatory screening levels and criteria from nearby states suggesting the detection of benzene at SG-105S was likely a localized condition. Our October 2013 *SIR Addendum* included a recommendation to conduct a soil and groundwater investigation in the vicinity the natural gas regulator station to further evaluate the benzene detected in soil gas at SG-105S.

A *SIR Addendum* was submitted to RIDEM in July 2014 which presented the results of the April 2014 soil and groundwater sampling in the vicinity of SG-105S and the natural gas regulator station. This focused investigation was conducted to further assess the nature and extent of benzene in soil and groundwater proximate to SG-105S and was conducted in accordance with the RIDEM-approved February 7, 2014 *SSIWP* and February 28, 2014 *Addendum Letter to the SSIWP*. This investigation included four (4) borings to depths ranging from 20 to 25 feet bgs, the installation of two (2) monitoring wells, and the collection of soil and groundwater samples for analysis of volatile organic compounds (VOCs) via EPA Method 8260B. Soil samples were submitted from each boring from the 4 to 6 feet bgs interval. In summary, benzene was not detected in either soil or groundwater samples collected from the natural gas regulator station portion of the Site. No significant levels of any other VOCs were detected in either soil or groundwater. As described in our July 2014 *SIR Addendum*, the benzene concentrations that were detected in soil gas at SG-105S is likely the result of localized shallow soil impacts either within the natural gas regulator station fence line or outside the fence on the Merry Street extension. Our July 2014 *SIR Addendum* included a recommendation to re-sample soil gas from SG-105S during the quarterly monitoring event in July 2014.

A summary letter was submitted to RIDEM on October 1, 2014 which presented the results of the July 2014 SG-105S soil gas sampling. The soil gas sampling results from SG-105S were generally consistent with the July 2013 soil gas sampling conducted in the regulator station. Benzene was detected at a concentration of 960 µg/m^3, which is in excess of the MADEP residential and industrial/commercial soil gas screening levels and the NJDEP residential and industrial/commercial soil gas screening levels. Our summary letter included a recommendation to collect quarterly soil gas sampling from SG-105S to monitor the seasonal variations over the following year (October 2014, January 2015, April 2015 and July 2015). The results of this testing is presented below.

SAMPLING AND ANALYTICAL RESULTS

Soil gas from SG-105S was re-sampled on a quarterly basis (October 24th, 2014, January 23rd, 2015, April 29th, 2015 and July 28th, 2015) consistent with the October 1, 2014 *Summary Letter*. Soil gas samples were collected utilizing methodology consistent with the RIDEM-approved May 2013

[1] RIDEM has not established soil gas screening levels or criteria to evaluate the potential for vapor intrusion. Soil gas results were compared to criteria and/or screening values for nearby states, specifically to soil gas criteria published by the CTDEEP and to soil gas screening levels published by the NJDEP and the MADEP. For further details, please refer to GZA's October 2013 Soil Gas *SIR Addendum*.

SSIWP prepared by GZA. Soil gas samples were collected from SG-105S using 3-L summa canisters equipped with a 15-minute flow controller. In addition, GZA collected one (1) ambient air sample during each sampling event near the gate on Merry Street. Ambient air samples were collected utilizing 3-L summa air canisters with an 8-hour flow controller. Each sample was submitted to Contest Analytical Laboratory for VOC analysis via EPA Method TO-15. Soil gas samples were also submitted for helium analysis via EPA Method TO-3C to confirm the integrity of the probe. Field sampling logs are included as Attachment B. Copies of the laboratory data reports are provided in Attachment C.

A summary of field screening results is presented in Table 1. Consistent with the RIDEM-approved May 2013 SSIWP, field screening was conducted during the initial purging of the soil gas probe and after collecting the soil gas sample. Field screening results were generally consistent with previous sampling conducted in July 2013 and July 2014, with methane concentrations ranging from 41.3 to 83.6%, oxygen concentrations ranging from 0 to 1.8% and carbon dioxide concentrations ranging 7.3 to 14.1%.

Analytical results of the ambient air sampling (October 2014, January 2015, April 2015, and July 2015) are presented along with previous ambient air sampling results (July 2013, August 2013 and July 2014) in Table 2. Results indicate the presence of low level constituents in ambient air: acetone, benzene, carbon tetrachloride, chloromethane, Freon 12, ethanol, 2-hexanone, isopropylbenzene, methylene chloride, tetrachloroethylene, toluene, Freon 11, and Freon 113. There were no exceedances of the RIDEM 1-hour or 24-hour Acceptable Ambient Air Levels (AALs). RIDEM AALs are listed in Air Pollution Control (APC) Regulation No.22 - Air Toxics. The compounds and limited range of concentrations that were detected are commonly found in ambient air in urban settings and are associated with common products such as gasoline, home heating oils, and air conditioners. The quarterly re-sampling results are consistent with the 2013 and July 2014 ambient air sampling results.

Analytical results of the SG-105S soil gas quarterly events (October 2014, January 2015, April 2015, and July 2015) are presented along with the previous sampling results (July 2013 and July 2014) in Table 3. Results indicate the presence of certain compounds: acetone, benzene, carbon disulfide, chlorobenzene, cyclohexane, cis-1,2-dichloroethylene, 1,1-dichloroethylene, ethylbenzene, 4-ethyltoluene, heptane, hexane, 2-hexanone, indane, isopropylbenzene, naphthalene, styrene, tetrachloroethylene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and total xylenes. Helium continued to not be detected in the samples, indicating acceptable integrity of the probe and sampling methodologies.

Consistent with the July 2013 and July 2014 sampling rounds, benzene was the only compound detected in excess of the MADEP or NJDEP soil gas screening levels in the samples collected from SG-105S between October 2014 and July 2015. No compounds were detected in excess of CTDEEP soil gas criteria.

As presented below and in the attached Table 3, benzene was detected in the samples collected from SG-105S at concentrations ranging from 45 to 1,700 µg/m^3, with the October 2014 through July 2015 quarterly sampling results ranging from 45 to 272 µg/m^3. The concentrations detected between

October 2014 and July 2015 were significantly lower when compared to the July 2013 and July 2014 results. Consistent with our previous conclusions, this trend suggests a localized condition that is attenuating.

Results presented in the October 2013 *SIR Addendum*	
Date	**Benzene Concentration in SG-105S (µg/m³)**
7/31/2013	1700
Results presented in the October 2014 *Summary Letter*	
Date	**Benzene Concentration in SG-105S (µg/m³)**
7/29/2014	960
Follow up Sampling - Quarterly Results (October 2014 to July 2015)	
Date	**Benzene Concentration in SG-105S (µg/m³)**
10/24/2014	272
1/23/2015	67
4/29/2015	45
7/28/2015	131

SUMMARY AND CONCULSIONS

As described above, the benzene concentrations detected in the quarterly sampling rounds at SG-105S between October 2014 and July 2015 were less than the benzene concentrations detected in SG-105S from July 2013 and July 2014. These quarterly sampling results are consistent with the conclusions presented in our October 2013 *SIR Addendum*, July 2014 *SIR Addendum* and October 2014 *Summary Letter,* that the benzene concentrations detected in shallow soil gas samples collected from SG-105S represents a localized condition and there is no risk of potential migration of impacted soil gas from the Tidewater Site towards neighboring properties and structures. The observations made during the October 2013 *SIR Addendum* and this re-sampling effort do not warrant further investigation and do not alter the conclusions presented in the July 2011 *Remedial Alternative Evaluation*. No further soil gas sampling is being proposed at this time.

National Grid continues to be committed to keeping neighbors, the nearby schools, parents and other stakeholders informed about the activities at the Tidewater Site. We look forward to continuing to work cooperatively with RIDEM to advance progress at this Site in accordance with the applicable regulations.

Proactive by Design

Should you have any questions or comments regarding the information presented herein, please do not hesitate to contact the undersigned or Michele Leone from National Grid at (401) 784-7337.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Margaret S. Kilpatrick, P.E.
Senior Project Manager
401-427-2719
margaret.kilpatrick@gza.com

James J. Clark, P.E., LEP
Senior Principal
860-858-3134
james.clark@gza.com

Attachments: Table 1 – Summary of Field Screening Data
Table 2 – Summary of Ambient Air Sampling
Table 3 – Summary of Soil Gas Sampling – SG-105S
Figure 1 – Locus Plan
Figure 2 – Exploration Location Plan
A - Limitations
B - Field Sampling Logs
C - Analytical Laboratory Certificates

cc: Barbara Morin, RIDEM
Elizabeth Stone, RIDEM
Michele Leone, National Grid

\\GZAProv1\Jobs\ENV\43654.msk\WORK\VI Data\Quarterly Sampling\Summary Letter\43654 Soil Gas Quarterly Sampling Summary Letter final 9-23-15.docx

TABLES

TABLE 1

Summary of Field Screening Data - Final Purge Data

Former Tidewater Facility

Pawtucket, Rhode Island

	SG-105S					
	7/31/2013	**7/29/2014**	**10/24/2014**	**1/23/2015**	**4/29/2015**	**7/28/2015**
Field Parameter (stabilized concentration - measured directly before sampling)						
Helium (%) in Shroud	11	12	15	17	20	10.1
O_2 (%) in Soil Gas	0	0.4	0.5	0	1.8	0
CO_2 (%) in Soil Gas	11.4	10.7	10.2	7.3	14.3	11.8
CH_4 (%) in Soil Gas	68.2	47.1	41.7	83.6	61	41.3

Notes:

1. Helium (%) measured with Radiodetection Helium Meter.
2. Helium concentration in the shroud should be between 10% and 20% to check accuracy of the seal between the sampling appartus and the probe.
3. O_2, CO_2, and CH_4 were measured with a Lantec Landfill Gas Meter.
4. Each meter was calibrated at the beginning of the day.
5. Typically, TVOCs in soil gas and Helium in pump outflow would be measured as a field parameter, but could not field measured in the soil gas sample from SG-105S due to the high CH_4 and low O_2 concentrations.

TABLE 2
Summary of Ambient Air Sampling
Former Tidewater Facility
Pawtucket, Rhode Island

	RIDEM Acceptable Ambient Air Levels (AALs)		Units	Varieur 72413 13G1044-02 Ambient Air 7/24/2013	Tidewater-72513 13G1148-01 Ambient Air 7/25/2013	Varieur-72513 13G1148-02 Ambient Air 7/25/2013	Tidewater-72913 13H0055-01 Ambient Air 7/29/2013	Varieur-72913 13H0055-02 Ambient Air 7/29/2013	Tidewater-73013 13H0055-06 Ambient Air 7/30/2013	Varieur-73013 13H0055-07 Ambient Air 7/30/2013	Tidewater-73113 13H0055-11 Ambient Air 7/31/2013	Varieur-73113 13H0055-12 Ambient Air 7/31/2013	Tidewater - 8113 13H0164-01 Ambient Air 8/1/2013	Ambient_72914 14G1373-02 Ambient Air 7/29/2014	Ambient-102414 14J1321-02 Ambient Air 10/24/2014	Ambient-12215 15A0882-01 Ambient Air 1/22/2015	Ambient-42815 15D1506-01 Ambient Air 4/28/2015	Ambient-72815 15G1327-01 Ambient Air 7/28/2015
	1 hour	24 hour																
EPA TO-15 Full List																		
Acetone	60,000	30,000	µg/m^3	31	12	17	18	42	33	34	31	35	26	36	18	12	14	<4.75
Benzene	30	20	µg/m^3	0.22	0.23	0.23	0.24	0.36	0.26	0.43	0.23	0.27	0.29	0.63	0.30	0.70	0.30	0.27
Benzyl chloride	200	NE	µg/m^3	<0.18	<0.18	<0.18	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.18	<0.18	<0.18	<0.26
Bromodichloromethane	100	70	µg/m^3	<0.24	<0.12	<0.12	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.12	<0.12	<0.23	<0.34
Bromoform	2,000	70	µg/m^3	<0.36	<0.36	<0.36	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.36	<0.36	<0.36	<0.52
Bromomethane	200	NE	µg/m^3	<0.14	<0.14	<0.14	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.14	<0.14	<0.14	<0.19
1,3-Butadiene	NE	NE	µg/m^3	<0.078	<0.078	<0.078	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.17	<0.17	<0.17	<0.25
2-Butanone (MEK)	10,000	5,000	µg/m^3	5.7	<4.1	<4.1	<5.9	<5.9	<5.9	<5.9	<5.9	6.6	<5.9	<5.9	<4.1	<4.13	<4.13	<5.9
Carbon Disulfide	6,000	NE	µg/m^3	<1.1	<1.1	<1.1	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.1	<1.09	<1.09	<1.56
Carbon Tetrachloride	2,000	200	µg/m^3	0.45	0.45	0.45	0.26	0.43	0.46	0.46	0.46	0.43	0.44	0.55	0.31	<0.11	0.39	<0.31
Chlorobenzene	NE	NE	µg/m^3	<0.16	<0.16	<0.16	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.16	<0.16	<0.16	<0.23
Chloroethane	40,000	10,000	µg/m^3	<0.093	<0.093	<0.093	<0.13	<0.13	<0.13	0.22	<0.13	<0.13	<0.13	<0.13	<0.09	<0.09	<0.09	<0.13
Chloroform	100	NE	µg/m^3	0.28	0.11	0.11	<0.12	0.16	<0.12	0.3	<0.12	<0.12	<0.12	<0.12	<0.09	<0.09	<0.17	<0.24
Chloromethane	1,000	400	µg/m^3	1.3	0.95	1	0.88	1	1	1.5	0.99	0.9	1.1	1.3	0.62	1.1	0.8	0.33
Cyclohexane	NE	6,000	µg/m^3	<0.12	<0.12	<0.12	<0.17	0.34	<0.17	0.29	<0.17	<0.17	<0.17	<0.17	<0.12	<0.12	<0.12	<0.17
Dibromochloromethane	300	70	µg/m^3	<0.30	<0.15	<0.15	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.15	<0.15	<0.3	<0.43
1,2-Dibromoethane (EDB)	NE	9	µg/m^3	<0.27	<0.13	<0.13	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.14	<0.14	<0.27	<0.38
1,2-Dichlorobenzene	2000	NE	µg/m^3	<0.21	<0.21	<0.21	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.21	<0.21	<0.21	<0.3
1,3-Dichlorobenzene	NE	NE	µg/m^3	<0.21	<0.21	<0.21	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.21	<0.21	<0.21	<0.3
1,4-Dichlorobenzene	12,000	800	µg/m^3	<0.21	<0.21	<0.21	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.21	<0.21	<0.21	<0.3
Dichlorodifluoromethane (Freon 12)	NE	NE	µg/m^3	2	1.2	1.2	1.1	1.7	1.4	1.4	1.8	1.8	2	2.1	1.4	0.79	1.24	0.64
1,1-Dichloroethane	NE	NE	µg/m^3	<0.14	<0.071	<0.071	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.07	<0.07	<0.14	<0.2
1,2-Dichloroethane	NE	NE	µg/m^3	<0.14	<0.14	<0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.08	<0.08	<0.16	<0.23
1,1-Dichloroethylene	NE	NE	µg/m^3	<0.14	<0.070	<0.070	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.07	<0.07	<0.14	<0.2
cis-1,2-Dichloroethylene	3,000	1,000	µg/m^3	<0.14	<0.070	<0.070	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.07	<0.07	<0.14	<0.2
trans-1,2-Dichloroethylene	800	NE	µg/m^3	<0.14	<0.070	<0.070	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.07	<0.07	<0.14	<0.2
1,2-Dichloropropane	200	4	µg/m^3	<0.16	<0.081	<0.081	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.08	<0.08	<0.16	<0.23
cis-1,3-Dichloropropene	NE	20	µg/m^3	<0.16	<0.080	<0.080	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.08	<0.08	<0.16	<0.23
trans-1,3-Dichloropropene	NE	20	µg/m^3	<0.16	<0.080	<0.080	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.08	<0.08	<0.16	<0.23
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114	NE	NE	µg/m^3	<0.25	<0.25	<0.25	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.21	<0.21	<0.21	<0.3
1,4-Dioxane	3,000	NE	µg/m^3	<1.3	<1.3	<1.3	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.17	<1.3	<1.26	<1.26	<1.8
Ethanol	NE	NE	µg/m^3	8.8	4.1	4.5	6.5	25	12	9.5	11	10	8.8	8.1	4.9	3.2	3.2	<3.77
Ethyl Acetate	NE	NE	µg/m^3	1.4	0.29	0.67	0.52	6.4	0.72	<0.18	0.5	<0.18	<0.18	<0.18	0.33	0.34	0.68	<0.18
Ethylbenzene	40,000	3,000	µg/m^3	<0.15	<0.15	<0.15	<0.22	<0.22	<0.22	0.61	<0.22	<0.22	<0.22	<0.22	<0.15	<0.15	<0.15	<0.22
4-Ethyltoluene	NE	NE	µg/m^3	<0.17	<0.17	<0.17	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.17	<0.17	<0.17	<0.25
Heptane	NE	NE	µg/m^3	0.3	0.16	<0.14	<0.20	0.61	<0.20	0.86	<0.20	<0.20	0.23	<0.2	<0.14	0.15	0.15	<0.2
Hexachlorobutadiene	NE	0.7	µg/m^3	<0.37	<0.37	<0.37	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.37	<0.37	<0.37	<0.53
Hexane	NE	NE	µg/m^3	<4.9	<4.9	<4.9	<7.0	12	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<4.9	<4.93	<4.93	<7.05
2-Hexanone (MBK)	NE	3,000	µg/m^3	0.77	0.6	0.48	0.88	0.88	1.3	0.58	1.8	1.8	1.1	1.1	0.22	0.74	0.36	<0.2
Indane	NE	NE	µg/m^3	<0.44	<0.44	<0.44	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.44	<0.73	1.84	<0.63
Indene	NE	NE	µg/m^3	<0.44	<0.44	<0.44	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.44	<0.76	<1.24	<0.62
Isopropanol	3,000	NE	µg/m^3	<3.4	<3.4	<3.4	<4.9	8.5	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<3.4	<3.44	<3.44	<4.92
Isopropylbenzene (Cumene)	NE	400	µg/m^3	<0.44	<0.44	<0.44	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.44	<0.74	5.9	<0.64
Methyl tert-Butyl Ether (MTBE)	7,000	3,000	µg/m^3	<0.13	<0.13	<0.13	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.13	<0.13	<0.13	<0.18
Methylene Chloride	2,000	1,000	µg/m^3	2.2	<1.2	2.8	4.4	6.7	5.2	3.2	1.9	<1.7	<1.7	1.8	1.7	1.9	1.70	<1.74
4-Methyl-2-pentanone (MIBK)	NE	NE	µg/m^3	<0.14	0.22	0.18	0.28	0.42	0.52	<0.20	0.67	0.68	0.4	<0.2	<0.14	<0.14	<0.14	<0.2
Naphthalene	NE	3	µg/m^3	0.37	0.27	0.22	0.29	0.48	0.39	0.31	<0.26	<0.26	0.3	<0.26	<0.18	<0.18	<0.18	<0.26
Propene	NE	NE	µg/m^3	<2.4	<2.4	<2.4	<3.4	<3.4	<3.4	<3.4	<3.4	<3.4	<3.4	<3.4	<2.4	<2.41	<2.41	<3.44

TABLE 2
Summary of Ambient Air Sampling
Former Tidewater Facility
Pawtucket, Rhode Island

	RIDEM Acceptable Ambient Air Levels (AALs)		Units	Varieur 72413 13G1044-02 Ambient Air 7/24/2013	Tidewater-72513 13G1148-01 Ambient Air 7/25/2013	Varieur-72513 13G1148-02 Ambient Air 7/25/2013	Tidewater-72913 13H0055-01 Ambient Air 7/29/2013	Varieur-72913 13H0055-02 Ambient Air 7/29/2013	Tidewater-73013 13H0055-06 Ambient Air 7/30/2013	Varieur-73013 13H0055-07 Ambient Air 7/30/2013	Tidewater-73113 13H0055-11 Ambient Air 7/31/2013	Varieur-73113 13H0055-12 Ambient Air 7/31/2013	Tidewater - 8113 13H0164-01 Ambient Air 8/1/2013	Ambient_72914 14G1373-02 Ambient Air 7/29/2014	Ambient-102414 14J1321-02 Ambient Air 10/24/2014	Ambient-12215 15A0882-01 Ambient Air 1/22/2015	Ambient-42815 15D1506-01 Ambient Air 4/28/2015	Ambient-72815 15G1327-01 Ambient Air 7/28/2015
	1 hour	24 hour																
EPA TO-15 Full List																		
Styrene	9,000	1,000	µg/m^3	<0.15	<0.15	<0.15	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.15	<0.15	<0.15	<0.21
1,1,2,2-Tetrachloroethane	NE	2,000	µg/m^3	<0.24	<0.12	<0.12	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.12	<0.12	<0.24	<0.34
Tetrachloroethylene	1,000	NE	µg/m^3	<0.24	<0.12	<0.12	<0.17	<0.17	<0.17	<0.17	0.21	<0.17	0.18	0.48	<0.12	<0.12	0.49	2.9
Tetrahydrofuran	NE	NE	µg/m^3	<0.10	<0.10	<0.10	<0.15	0.2	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.1	<0.1	<0.1	<0.15
Toluene	4,000	NE	µg/m^3	0.71	0.85	0.8	0.58	1.3	0.72	2.8	0.77	1.1	0.91	0.32	0.31	0.87	0.45	0.26
1,2,4-Trichlorobenzene	NE	30	µg/m^3	<0.26	<0.26	<0.26	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.26	<0.26	<0.26	<0.37
1,1,1-Trichloroethane	9,000	6,000	µg/m^3	<0.19	<0.096	<0.096	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.1	<0.1	<0.19	<0.27
1,1,2-Trichloroethane	NE	10	µg/m^3	<0.19	<0.096	<0.096	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.1	<0.1	<0.19	<0.27
Trichloroethylene	10,000	500	µg/m^3	0.28	<0.094	<0.094	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.1	<0.1	<0.19	<0.27
Trichlorofluoromethane (Freon 11)	NE	1,000	µg/m^3	1.8	1.1	1.2	0.99	1.6	1.6	1.5	1.6	1.4	1.6	1.4	2.4	1.1	1.1	<1.12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NE	NE	µg/m^3	1.4	0.58	0.6	0.46	0.9	1.5	1.4	1.9	0.99	1.7	0.54	2.2	0.54	<1.07	<1.53
1,2,4-Trimethylbenzene	NE	NE	µg/m^3	<0.17	<0.17	<0.17	<0.25	<0.25	<0.25	0.75	<0.25	<0.25	<0.25	<0.25	<0.17	<0.17	<0.17	<0.25
1,3,5-Trimethylbenzene	NE	NE	µg/m^3	<0.17	<0.17	<0.17	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.17	<0.17	<0.17	<0.25
Vinyl Acetate	NE	200	µg/m^3	<2.5	<2.5	<2.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<2.5	<2.46	<2.46	<3.52
Vinyl Chloride	1,000	100	µg/m^3	<0.090	<0.045	<0.045	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.05	<0.05	<0.09	<0.13
m&p-Xylene	9,000	3,000	µg/m^3	<0.30	0.33	<0.30	<0.43	0.48	<0.43	1.8	<0.43	<0.43	<0.43	<0.43	<0.30	<0.3	<0.3	<0.43
o-Xylene	9,000	3,000	µg/m^3	<0.15	<0.15	<0.15	<0.22	<0.22	<0.22	0.74	<0.22	<0.22	<0.22	<0.22	<0.15	<0.15	<0.15	<0.22

Notes:
NE - Not Established
Bolded text indicates an exceedance of the 1-hour RIDEM AALs
A gray shaded cell indicates an exceedance of RIDEM 24-hour RIDEM AALs
A blue shaded cell indicates that the detection limit exceeds relative criteria / screening level.
RIDEM 1-hour and 24-hour Acceptable Ambient Air Levels (AALs) are obtained from AIr Pollution Control Regulation No.22 - Air Toxics published by the RIDEM. AALs are presented in units of µg/m^3.

TABLE 3
Summary of Soil Gas Sampling - SG-105S
Former Tidewater Facility
Pawtucket, Rhode Island

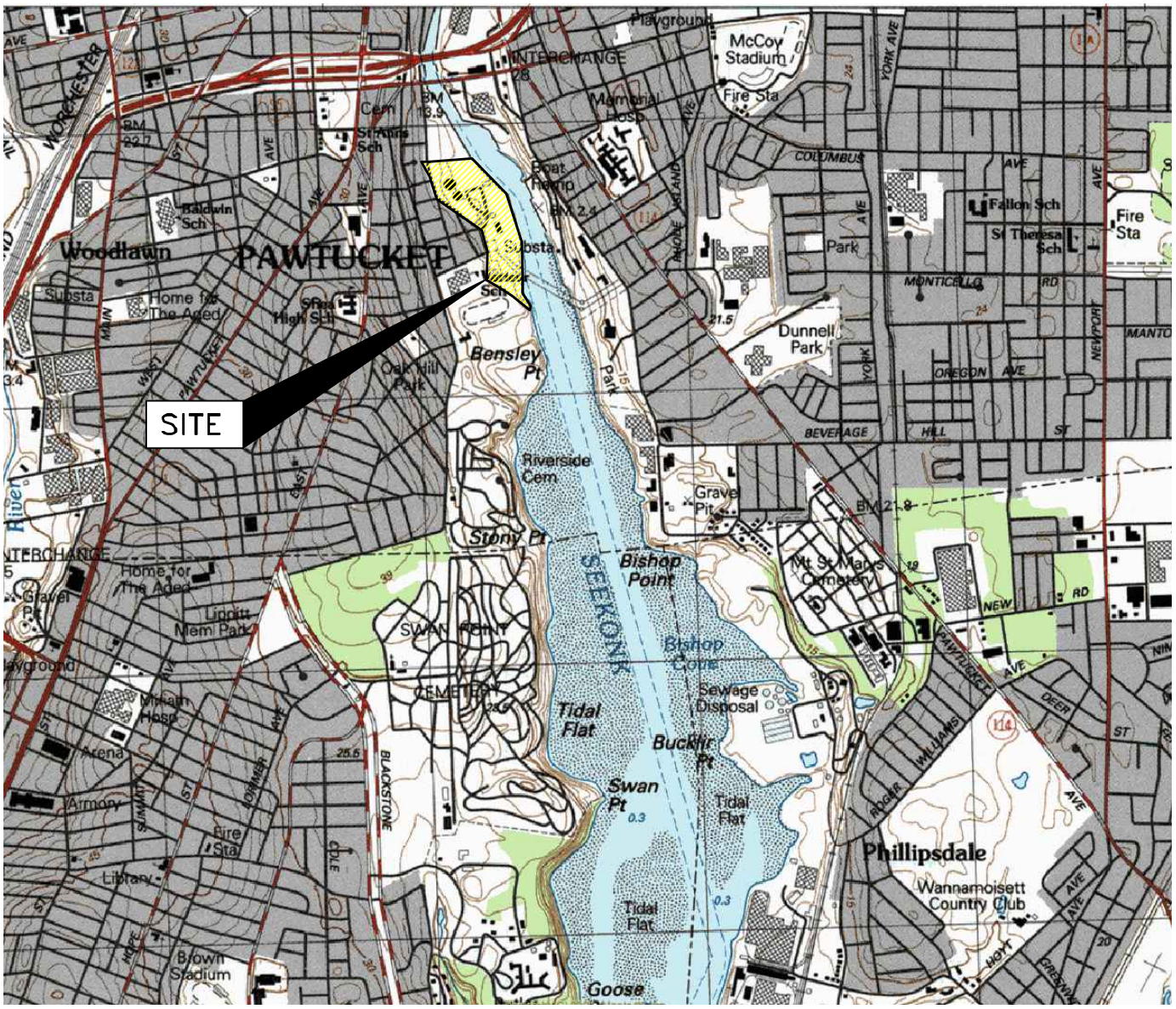
	2008 CT DEEP Criteria		2013 MADEP Screening Levels		2013 NJDEP Screening Levels		Units	SG-105S 13H0055-13 Soil Gas 7/31/2013	SG-105S 14G1373-01 Soil Gas 7/29/2014	SG-105S 14J1321-01 Soil Gas 10/24/2014	SG-105S 15A0882-02 Soil Gas 1/23/2015	SG-105S 15D1506-02 Soil Gas 4/29/2015	SG-105S 15G1327-02 Soil Gas 7/28/2015
	Residential	Industrial/ Commercial	Residential	Industrial/ Commercial	Residential	Industrial/ Commercial							
EPA TO-3C													
Helium	NE	NE	NE	NE	NE	NE	%	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
EPA TO-15 Full List													
Acetone	378,030	500,000	6,400	50,000	1,600,000	6,800,000	µg/m^3	<4.8	3,700	<19	<9.5	7.6	26
Benzene	2,456	4,501	160	770	16	79	µg/m^3	1700	960	272	67	45	131
Benzyl chloride	NE	NE	NE	NE	NE	NE	µg/m^3	<0.26	<0.52	<1.0	<0.52	<0.18	<0.26
Bromodichloromethane	1,340	1,340	9.1	46	34	34	µg/m^3	<0.17	<0.34	<0.67	<0.34	<0.23	<0.34
Bromoform	NE	NE	150	700	110	560	µg/m^3	<0.52	<1.0	<2.1	<1.03	<0.36	<0.52
Bromomethane	780	6,930	42	310	260	1,100	µg/m^3	<0.19	<0.39	<0.78	<0.39	<0.14	<0.19
1,3-Butadiene	NE	NE	NE	NE	11	20	µg/m^3	<0.11	<0.22	<0.98	<0.49	<0.17	<0.25
2-Butanone (MEK)	377,771	500,000	840	310,000	260,000	1,100,000	µg/m^3	<5.9	<12	<23.6	<11.8	<4.13	<5.9
Carbon Disulfide	NE	NE	NE	NE	36,000	150,000	µg/m^3	<1.6	3.3	<6.2	5.0	1.3	<1.56
Carbon Tetrachloride	1,300	1,300	38	130	31	100	µg/m^3	<0.16	<0.31	<0.63	<0.31	<0.22	<0.31
Chlorobenzene	30,254	282,730	160	1,300	2,600	11,000	µg/m^3	<0.23	<0.46	<0.92	<0.46	<0.16	2.7
Chloroethane	378,671	500,000	NE	NE	520,000	2,200,000	µg/m^3	<0.13	<0.26	<0.53	<0.26	<0.09	<0.13
Chloroform	1,513	13,864	130	210	24	27	µg/m^3	<0.12	<0.24	<0.49	<0.24	<0.17	<0.24
Chloromethane	3,926	37,362	NE	NE	4,700	20,000	µg/m^3	<0.21	<0.41	<0.83	<0.41	<0.14	1.8
Cyclohexane	378,242	500,000	NE	NE	310,000	1,300,000	µg/m^3	860	1,400	151	145	6.5	11
Dibromochloromethane	NE	NE	6.8	34	43	43	µg/m^3	<0.21	<0.43	<0.85	<0.43	<0.3	<0.43
1,2-Dibromoethane (EDB)	NE	NE	0.55	2.7	38	38	µg/m^3	<0.19	<0.38	<0.77	<0.38	<0.27	<0.38
1,2-Dichlorobenzene	60,527	500,000	50	13,000	10,000	44,000	µg/m^3	<0.30	<0.6	<1.2	<0.6	<0.21	<0.3
1,3-Dichlorobenzene	1,515	13,865	42	13,000	NE	NE	µg/m^3	<0.30	<0.6	<1.2	<0.6	<0.21	<0.3
1,4-Dichlorobenzene	18,156	33,277	35	120	30	56	µg/m^3	<0.30	<0.6	<1.2	<0.6	<0.21	<0.3
Dichlorodifluoromethane (Freon 12)	75,770	500,000	NE	NE	5,200	22,000	µg/m^3	<0.25	<0.49	<0.99	<0.49	<0.17	<0.25
1,1-Dichloroethane	15,147	141,568	56	31,000	76	380	µg/m^3	<0.10	<0.2	<0.40	<0.2	<0.14	<0.2
1,2-Dichloroethane	800	800	6	31	20	24	µg/m^3	0.80	<0.2	<0.46	0.79	<0.16	<0.23
1,1-Dichloroethylene	7,560	70,654	56	13,000	10,000	44,000	µg/m^3	<0.099	<0.2	6.3	<0.2	<0.14	<0.2
cis-1,2-Dichloroethylene	15,119	141,301	56	2,200	3,100	13,000	µg/m^3	0.29	0.48	<0.40	<0.2	<0.14	<0.2
trans-1,2-Dichloroethylene	15,119	141,305	56	4,300	3,100	13,000	µg/m^3	<0.099	<0.2	<0.40	<0.2	<0.14	<0.2
1,2-Dichloropropane	900	1,109	8.4	42	23	61	µg/m^3	<0.12	<0.23	<0.46	<0.23	<0.16	<0.23
cis-1,3-Dichloropropene	900	2,774	41	200	30	150	µg/m^3	<0.11	<0.23	<0.45	<0.23	<0.16	<0.23
trans-1,3-Dichloropropene	900	2,774	41	200	30	150	µg/m^3	<0.11	<0.23	<0.45	<0.23	<0.16	<0.23
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114	NE	NE	NE	NE	NE	NE	µg/m^3	<0.35	<0.7	<1.2	<0.6	<0.21	<0.3
1,4-Dioxane	NE	NE	40	200	NE	NE	µg/m^3	<1.8	<3.6	<7.2	<3.6	<1.26	<1.8
Ethanol	NE	NE	NE	NE	NE	NE	µg/m^3	<3.8	<7.5	<15.1	<7.54	<2.64	<3.77
Ethyl Acetate	377,762	500,000	NE	NE	NE	NE	µg/m^3	<0.18	<0.36	<0.72	<0.36	<0.13	<0.18
Ethylbenzene	43,882	410,364	520	62,000	49	250	µg/m^3	40	31	7.8	4.8	0.61	5.2
4-Ethyltoluene	NE	NE	NE	NE	NE	NE	µg/m^3	35	39	8.9	6.4	1.5	7.9
Heptane	NE	NE	NE	NE	NE	NE	µg/m^3	1100	570	119	184	6.2	41
Hexachlorobutadiene	NE	NE	7.7	320	53	53	µg/m^3	<0.53	<1.1	<2.1	<1.07	<0.37	<0.53
Hexane	302,386	500,000	NE	NE	36,000	150,000	µg/m^3	2100	1,500	148	310	8.8	53
2-Hexanone (MBK)	NE	NE	NE	NE	NE	NE	µg/m^3	<0.20	<0.41	<0.82	<0.41	<0.14	18
Indane	NE	NE	NE	NE	NE	NE	µg/m^3	10	19	4.4	<1.26	<0.44	2.9

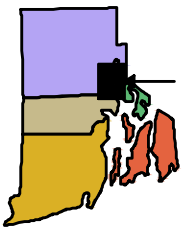
TABLE 3
Summary of Soil Gas Sampling - SG-105S
Former Tidewater Facility
Pawtucket, Rhode Island

	2008 CT DEEP Criteria		2013 MADEP Screening Levels		2013 NJDEP Screening Levels		Units	SG-105S 13H0055-13 Soil Gas 7/31/2013	SG-105S 14G1373-01 Soil Gas 7/29/2014	SG-105S 14J1321-01 Soil Gas 10/24/2014	SG-105S 15A0882-02 Soil Gas 1/23/2015	SG-105S 15D1506-02 Soil Gas 4/29/2015	SG-105S 15G1327-02 Soil Gas 7/28/2015
	Residential	Industrial/ Commercial	Residential	Industrial/ Commercial	Residential	Industrial/ Commercial							
EPA TO-15 Full List													
Indene	NE	NE	NE	NE	NE	NE	µg/m^3	0.96	<1.3	<2.5	<1.24	<0.44	<0.62
Isopropanol	NE	NE	NE	NE	NE	NE	µg/m^3	<4.9	<9.8	<19.7	<9.83	<3.44	<4.92
Isopropylbenzene (Cumene)	29,545	54,140	NE	NE	NE	NE	µg/m^3	30	35	13	2.1	<0.44	5.4
Methyl tert-Butyl Ether (MTBE)	129,581	263,819	2,700	190,000	470	2,400	µg/m^3	<0.18	<0.36	<0.72	<0.36	<0.13	<0.18
Methylene Chloride	2,269	23,554	770	37,000	4,800	61,000	µg/m^3	<1.7	<3.5	<7.0	<3.47	<1.22	<1.74
4-Methyl-2-pentanone (MIBK)	378,459	500,000	150	190,000	160,000	660,000	µg/m^3	<0.20	<0.41	<0.82	<0.41	<0.14	<0.2
Naphthalene	1,284	12,203	42	190	26	26	µg/m^3	1.1	5.7	<1.1	1.4	0.19	1.3
Propene	NE	NE	NE	NE	NE	NE	µg/m^3	<3.4	<6.9	<13.8	<6.88	<2.41	<3.44
Styrene	45,420	425,838	98	1,400	52,000	220,000	µg/m^3	5.5	3.9	<0.85	<0.43	<0.15	0.85
1,1,2,2-Tetrachloroethane	1,400	1,386	2.8	14	34	34	µg/m^3	<0.17	<0.34	<0.69	<0.34	<0.24	<0.34
Tetrachloroethylene	3,783	6,936	98	290	470	2,400	µg/m^3	1.0	6.9	5.6	1.4	<0.24	<0.34
Tetrahydrofuran	605	5,814	NE	NE	NE	NE	µg/m^3	<0.15	<0.29	<0.59	<0.29	<0.1	<0.15
Toluene	130,246	500,000	3,800	310,000	260,000	1,100,000	µg/m^3	180	66	9.8	7.5	0.94	7.9
1,2,4-Trichlorobenzene	1,135	11,093	240	13,000	100	440	µg/m^3	<0.37	<0.74	<1.5	<0.74	<0.26	<0.37
1,1,1-Trichloroethane	115,135	500,000	210	320,000	260,000	1,100,000	µg/m^3	<0.14	<0.27	<0.55	<0.27	<0.19	<0.27
1,1,2-Trichloroethane	1,100	1,100	11	50	27	38	µg/m^3	<0.14	<0.27	<0.55	<0.27	<0.19	<0.27
Trichloroethylene	1,100	1,385	28	130	27	150	µg/m^3	0.30	<0.27	<0.54	<0.27	<0.19	<0.27
Trichlorofluoromethane (Freon 11)	378,591	500,000	NE	NE	36,000	150,000	µg/m^3	<0.28	<0.56	<1.1	<0.56	<0.79	<1.12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	378,304	500,000	NE	NE	1,600,000	6,600,000	µg/m^3	<0.38	<0.77	<1.5	<0.77	<1.07	<1.53
1,2,4-Trimethylbenzene	2,578	23,601	NE	NE	NE	NE	µg/m^3	130	140	33	25	5.4	25
1,3,5-Trimethylbenzene	2,578	23,601	NE	NE	NE	NE	µg/m^3	77	80	26	14	2.9	13
Vinyl Acetate	86,247	500,000	NE	NE	NE	NE	µg/m^3	<3.5	<7.0	<14.1	<7.04	<2.46	<3.52
Vinyl Chloride	500	1,249	19	91	13	140	µg/m^3	<0.06	<0.13	<0.26	<0.13	<0.09	<0.13
m&p-Xylene	44,967	421,609	1,400	6,200	5,200	22,000	µg/m^3	280	260	69	37	8.7	48
o-Xylene	44,967	421,609	1,400	6,200	5,200	22,000	µg/m^3	94	79	23	15	3.7	14

Notes:
NE - Not Established
Bolded text indicates an exceedance of MADEP residential screening levels.
A gray shaded cell indicates an exceedance of MADEP industrial/commercial screening levels.
Red text indicates an exceedance of NJDEP residential screening levels.
Underlined text indicates an exceedance of NJDEP indsutrial/commercial screening levels.
Italicized text indicates an exceedance of CTDEEP residential criteria
A bold borded cell indicates an exceedance of CTDEEP industrial/commercial criteria.
A blue shaded cell indicates that the detection limit exceeds relative criteria / screening level.
CTDEEP residential and industrial/commercial criteria is obtained from the 2008 Connecticut Remediation Criteria: Technical Support Document Appendix J published by the CTDEEP.
CTDEEP Criteria is presented in the 2008 Connecticut Remediation Criteria: Technical Support Document Appendix J - Table J6 and J8 in parts per million (ppmv) with adjustments presented for analytical capabilities and maximum values. To obtain criteria in mg/m^3 units, ppmv criteria is multiplied by the molecular weight of the compound divided by 24.45 (a conversion factor). The mg/m^3 criteria is multiplied by 1000 to obtain µg/m^3.
MADEP Screening Levels obtained from the 2011 Interim Final Vapor Intrusion Guidance last revised in 2013 published by MADEP. Screening levels are presented in units of µg/m^3.
NJDEP Residential and industrial/commercial screening values are obtained from Table 1 - NJDEP Master Table Generic Vapor Intrusion Screen Levels as referenced in the 2013 Vapor Intrusion Technical Guidance published by NJDEP. Screening levels are presented in units of µg/m^3.

FIGURES





QUADRANGLE LOCATION

SOURCE:

BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
PROVIDENCE, RHODE ISLAND (1987)

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY MAPTECH. INC.

CONTOUR ELEVATIONS REFERENCE NGVD 29,
CONTOURS ARE SHOWN IN METERS AT 3 METER INTERVALS

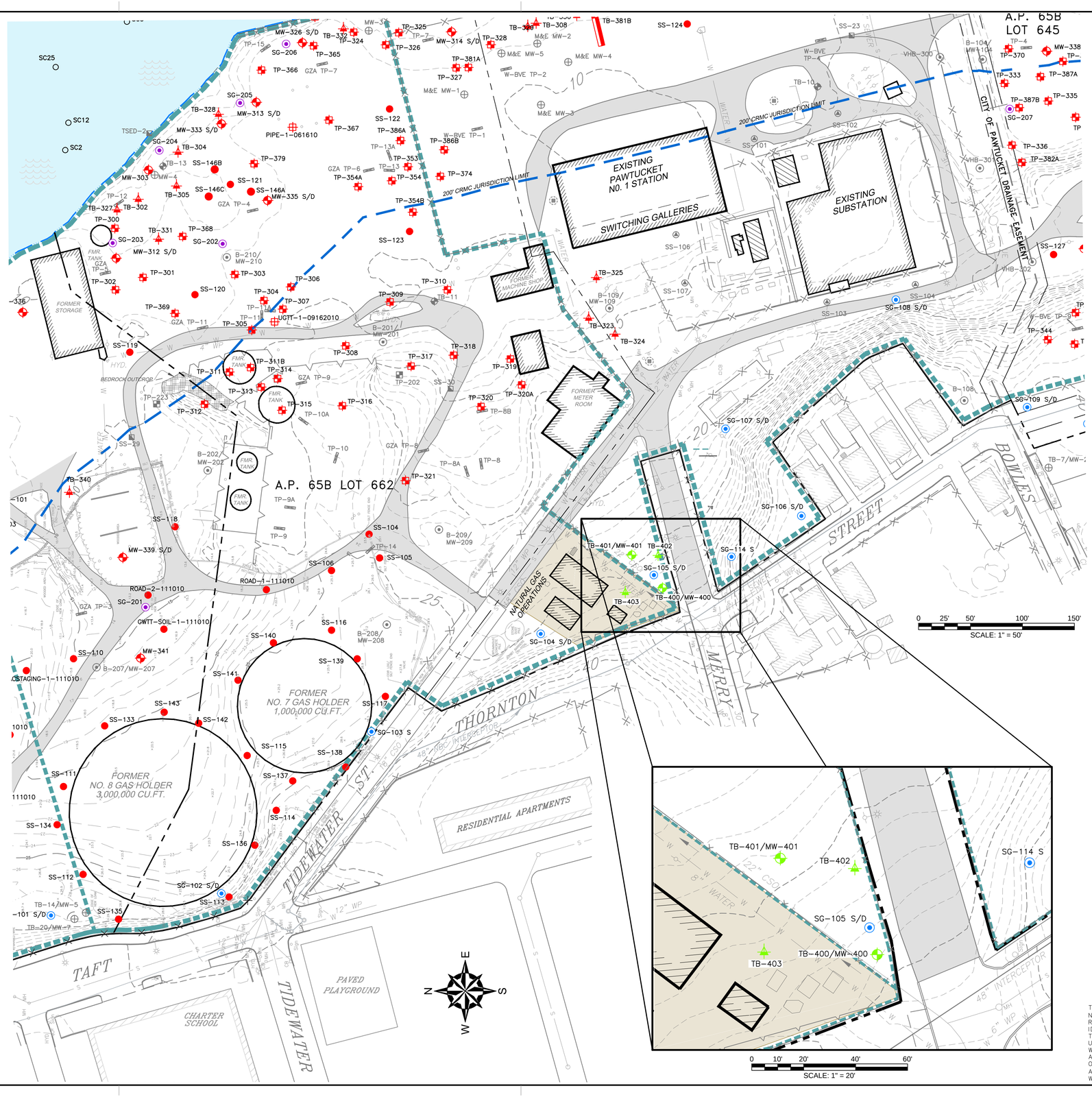
TIDEWATER FACILITY
PAWTUCKET, RHODE ISLAND

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
NATIONAL GRID

LOCUS PLAN

PROJ MGR: MSK	REVIEWED BY: MSK	CHECKED BY: JJC	FIGURE 1
DESIGNED BY: SDN	DRAWN BY: CRD	SCALE: AS NOTED	
DATE: 2015	PROJECT NO. 43654	REVISION NO. 0	SHEET NO. 1 OF 2



LEGEND:

- SITE AREA BOUNDARIES
- EXISTING BUILDINGS ON-SITE
- EXISTING FOUNDATION/PAD ON-SITE
- EXISTING BUILDINGS/STRUCTURES OFF-SITE
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- PROPERTY LINE
- APPROX. 200 FT. CRMC JURISDICTION LIMIT
- APPROX. WATERS EDGE
- EXISTING NBC INTERCEPTOR SANITARY SEWER
- EXISTING CITY OF PAWTUCKET STORM DRAIN
- EXISTING WATER LINE
- EXISTING STORM/COMBINED SAN. SEWER OVERFLOW
- EXISTING UNDERGROUND ELECTRIC CABLE IN CONDUIT
- EXISTING UNDERGROUND ELECTRIC MH/STRUCTURE
- EXISTING ACCESS ROAD
- EXISTING RETAINING WALLS
- EXISTING FENCE
- EXISTING CATCH BASIN LOCATIONS
- APPROXIMATE BOUNDARY OF NATURAL GAS REGULATOR STATION

SAMPLE LEGEND

SS-9	ATLANTIC SURFACE SOIL SAMPLE LOCATION
TSED-6	ATLANTIC SEDIMENT SAMPLE LOCATION
W-BVE SS-3	WESTON/BLACKSTONE VALLEY ELECTRIC SEDIMENT SAMPLE LOCATION
RIDEM SS-3	RIDEM SURFACE SOIL SAMPLE LOCATION
B-109/ MW-109	MONITORING WELL/BORING (VHB) SURVEYED
TP-3A	ATLANTIC TEST PIT LOCATION
W-BVE TP-8	WESTON/BLACKSTONE VALLEY ELECTRIC TEST PIT LOCATION
GZA TP-8	GZA/VALLEY GAS TEST PIT LOCATION
TB-15	ATLANTIC SOIL BORING LOCATION
MW-3	ATLANTIC MONITORING WELL LOCATION
M&E MW-1	METCALF & EDDY MONITORING WELL LOCATION
VHB-400	VHB SURFACE SOIL SAMPLE LOCATION NON-SURVEYED
TP-204	VHB TEST PIT (2006)
GZ-01	GZA TEST PIT (2009)
TB-300	GZA TEST BORING LOCATION (2010)
MW-320 S/D	GZA MONITORING WELL LOCATION (2010)
TP-306	GZA TEST PIT LOCATION (2010)
SS-100	GZA SURFACE SOIL SAMPLE LOCATION (2010)
SC31	ARCADIS SEDIMENT SAMPLE LOCATION (2008)
PIPE-1-061610	GZA RESIDUAL MATERIAL SAMPLE (2010)
TB-300	GZA TEST BORING LOCATION (2011)
SG-200	INTERIOR SOIL GAS SAMPLING LOCATION
SG-100	PERIMETER SOIL GAS SAMPLING LOCATION
TB-400	GZA BORING LOCATION (2014)
MW-400	GZA MONITORING WELL LOCATION (2014)

GENERAL NOTES:

1. EXISTING CONDITIONS BASE MAP DEVELOPED FROM THE FOLLOWING:
   - ELECTRONIC FILES FROM GEI CONSULTANTS, INC. (FORMERLY AES) ENTITLED "HISTORIC STRUCTURES AND SAMPLE LOCATIONS", ORIGINAL SCALE 1"=80', DATED JULY 1999
   - ELECTRONIC FILES FROM VANASSE HANGEN BRUSTLIN, INC. ENTITLED "SOIL BORING, TEST PIT AND MONITOR WELL LOCATIONS", SCALE: 1"=60', UNDATED
   - ELECTRONIC FILES FROM WELSH ASSOCIATES LAND SURVEYORS, INC. ENTITLED "TOPOGRAPHIC SURVEY (AS-BUILT), FORMER TIDEWATER FACILITY, DEMOLITION OF GAS HOLDERS NOS. 7 & 8", DATED DECEMBER 17, 2010
   - ON-SITE INVESTIGATIONS AND SURVEYS BY GZA PERSONNEL DURING VARIOUS SITE VISITS DURING 2009 AND 2010.
2. PROPERTY LINES AND LOT INFORMATION ESTABLISHED FROM INFORMATION PROVIDED ON A DRAWING ENTITLED "PERIMETER SURVEY OF LAND AT THE TIDEWATER FORMER MGP SITE IN PAWTUCKET, RHODE ISLAND FOR ATLANTIC ENVIRONMENTAL SERVICES INC." DEVELOPED BY LOUIS FEDERICI AND ASSOCIATES AND AN AUTO CAD FILE ENTITLED "MAX READ FIELD TRACK EXPANSION 2007" PROVIDED BY THE CITY OF PAWTUCKET.
3. HORIZONTAL DATUM IS BASED ON NAD 1983 FROM BASE MAPPING PROVIDED BY GEI CONSULTANTS, INC.
4. VERTICAL DATUM IS BASED ON NGVD 1929 (MSL) FROM BASE MAPPING PROVIDED BY GEI CONSULTANTS, INC.
5. REFERENCE SEWER DATA FROM SCANNED IMAGE PROVIDED BY THE CITY OF PAWTUCKET, RHODE ISLAND, ENTITLED "STUDY OF SEWERAGE FACILITIES" BY WATERMAN ENGINEERING CO. & ANDERSON NICHOLS CO. DATED NOV. 1975, ORIGINAL SCALE 1"=400' & SCANNED IMAGES OF HISTORIC PLAN & PROFILE DRAWINGS PROVIDED BY THE CITY OF PAWTUCKET, RHODE ISLAND.
6. SITE UTILITIES TAKEN FROM 1984 SANBORN MAP AND HISTORIC FIGURES PROVIDED BY NATIONAL GRID. ALL UTILITY LOCATIONS ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY.

NO.	ISSUE/DESCRIPTION	BY	DATE

FORMER TIDEWATER FACILITY

PAWTUCKET, RHODE ISLAND

EXPLORATION LOCATION PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
530 BROADWAY
PROVIDENCE, RHODE ISLAND 02909
(401) 421-4140

PREPARED FOR: NATIONAL GRID

PROJ MGR: MSK	REVIEWED BY: WF	CHECKED BY: MSK	FIGURE 2
DESIGNED BY: WF	DRAWN BY: CRD	SCALE: AS NOTED	
DATE 2015	PROJECT NO. 43654.00	REVISION NO. 0	SHEET NO. 2 OF 2

APPENDIX A

LIMITATIONS

LIMITATIONS

1. This Summary Letter has been prepared on behalf of and for the exclusive use of The Narragansett Electric Company d/b/a National Grid (National Grid) solely for use in documenting the work completed as described herein at the Former Tidewater MGP and Merry Street ("Site") under the applicable provisions of the State of Rhode Island Department of Environmental Management Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations). This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA GeoEnvironmental, Inc.(GZA) or National Grid.

2. GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the study. No other warranty, express or implied is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during the work described herein.

3. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based upon services performed and observations made by GZA.

4. In the event that National Grid or others authorized to use this report obtain information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

5. The conclusions and recommendations contained in this report are based in part upon the data obtained from environmental samples obtained from relatively widely spread subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. In the event this work included the collection of water level data, these readings have been made in the test pits, borings and/or observation wells at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that

fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

7. The conclusions contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA and the conclusions and recommendations presented herein modified accordingly.

APPENDIX B

FIELD SAMPLING LOGS

SG-105S

Site:	Tidewater, Pawtucket, RI	Total Depth (ft):	5	Date:	10/24/2014
Probe ID:	SG-105S	Casing Volume (mL):	250	Weather:	Cloudy 60s
GZA Job No:	43654	Tubing Volume (mL):	50	Field Personnel:	SDN
Start Location Time:	9:00	Stop Location Time:	10:15	Start Purging Time:	9:45

Field Calibration

Photoionization Detector			Lantec Landfill Gas Meter			Helium Detector		
Zero (with filter)	0 ppm	0	O_2	20.9%	20.8	Detector #1	0%	0
Span Gas	10 ppm	10	CO_2	0%	0	Detector #2	0%	N/A
			CH_4	0%	0			

Ambient Air Screening								Casing Volume
Initial				Final				1" rods - 50 mL/ft
O_2	20.8	CH_4	0	O_2	20.8	CH_4	0	**Tubing Volume**
CO_2	0	PID	0	CO_2	0	PID	0	1/4 " tubing - 10 mL/ft

Initial Pressure Test

Test #	Pressure (in-H_2O)	Time Held	Notes:
1	150	2 Mins	Okay

Purge Data

Time	Elapsed Time (min)	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Total Volume Purged	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)
9:47	2	200	0.87	0.4	18	0.4	10.2	41.8	NM	NM
9:49	4	200	0.88	0.8	16	0.4	10.2	41.9	NM	NM
9:51	6	200	0.88	1.2	15	0.4	10.2	41.9	NM	NM
9:53	8	200	0.88	1.6	14	0.4	10.2	41.9	NM	NM

Analytical Samples

Can ID + FC ID	1362/4205	Analytical Method	TO-15 + Helium	Initial Pressure (in-Hg)	-29
Sample ID	SG-105S	Time to Fill (min)	13	Final Pressure (in-Hg)	-1.5
Helium Percentage in Shroud During Sampling:		20	Start Time: 9:54	Stop Time:	10:07

Final Purge Data

Time	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)	H&S (ppm)	
10:09	200	0.88	15	0.5	10.2	41.7	NM	NM	0	

Abbreviations:
ppm - parts per million
in-H20 - inches of water column
mL/min - milliliters per minute
ppb - parts per billion
O_2- oxygen
CO_2 - carbon dioxide
CH_4 - methane
mL - milliliters
min - minutes
PID- Photoionization Detector
TVOCs - Total Volatile Organic Compounds

Other Comments or Notes: TVOCs or Helium concentrations in exhaust not measured due measured due to CH_4 concentration.
NM-Not Measured. N/A= Not Applicable
H_2S (ppm) was measured for in exhaust, but not detected.

SG-105S

Site:	Tidewater, Pawtucket, RI	Total Depth (ft):	5	Date:	1/23/2015
Probe ID:	SG-105S	Casing Volume (mL):	250	Weather:	Cloudy 20s
GZA Job No:	43654	Tubing Volume (mL):	50	Field Personnel:	SDN
Start Location Time:	11:00	Stop Location Time:	12:45	Start Purging Time:	12:00

Field Calibration

Photoionization Detector			Lantec Landfill Gas Meter			Helium Detector		
Zero (with filter)	0 ppm	0	O_2	20.9%	20.8	Detector #1	0%	0
Span Gas	10 ppm	10	CO_2	0%	0	Detector #2	0%	N/A
			CH_4	0%	0			

Ambient Air Screening								Casing Volume
Initial				Final				1" rods - 50 mL/ft
O_2	20.8	CH_4	0	O_2	20.8	CH_4	0	**Tubing Volume**
CO_2	0	PID	0	CO_2	0	PID	0	1/4 " tubing - 10 mL/ft

Initial Pressure Test

Test #	Pressure (in-H_2O)	Time Held	Notes:
1	140	2 Mins	Okay

Purge Data

Time	Elapsed Time (min)	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Total Volume Purged	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)
12:00	2	200	10.00	0.4	25.7	0.4	7.5	82	NM	NM
12:03	5	200	9.90	1	21	0.3	7.4	82.1	NM	NM
12:06	8	200	7.20	1.6	14.2	0.2	7.4	82.4	NM	NM
12:08	10	200	7.20	2	18.6	0.2	7.4	82.3	NM	NM

Analytical Samples

Can ID + FC ID	1358/4202	Analytical Method	TO-15 + Helium	Initial Pressure (in-Hg)	-30
Sample ID	SG-105S	Time to Fill (min)	15	Final Pressure (in-Hg)	-4
Helium Percentage in Shroud During Sampling:		15	Start Time: 12:10	Stop Time:	12:25

Final Purge Data

Time	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)		
12:28	200	1.9	17	0	7.3	83.6	NM	NM		

Abbreviations:
ppm - parts per million
in-H20 - inches of water column
mL/min - milliliters per minute
ppb - parts per billion
O_2- oxygen
CO_2 - carbon dioxide
CH_4 - methane
mL - milliliters
min - minutes
PID- Photoionization Detector
TVOCs - Total Volatile Organic Compounds

Other Comments or Notes: TVOCs or Helium concentrations in exhaust not measured due measured due to CH_4 concentration.
NM-Not Measured. N/A= Not Applicable

SG-105S

Site:	Tidewater, Pawtucket, RI	Total Depth (ft):	5	Date:	4/29/2015
Probe ID:	SG-105S	Casing Volume (mL):	250	Weather:	Cloudy 50s
GZA Job No:	43654	Tubing Volume (mL):	50	Field Personnel:	SDN
Start Location Time:	8:30	Stop Location Time:	9:45	Start Purging Time:	9:05

Field Calibration

Photoionization Detector			Lantec Landfill Gas Meter			Helium Detector		
Zero (with filter)	0 ppm	0	O_2	20.9%	20.8	Detector #1	0%	0
Span Gas	10 ppm	10	CO_2	0%	0	Detector #2	0%	N/A
			CH_4	0%	0			

Ambient Air Screening								Casing Volume
Initial				Final				1" rods - 50 mL/ft
O_2	20.8	CH_4	0	O_2	20.8	CH_4	0	**Tubing Volume**
CO_2	0	PID	0	CO_2	0	PID	0	1/4 " tubing - 10 mL/ft

Initial Pressure Test

Test #	Pressure (in-H_2O)	Time Held	Notes:
1	140	3 Mins	Okay

Purge Data

Time	Elapsed Time (min)	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Total Volume Purged	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)
9:05	0	200	0.25	0	18	1.8	14.5	60.5	NM	NM
9:10	5	200	0.24	1	14	1.8	14.5	60.5	NM	NM
9:15	10	200	0.26	2	16	1.8	14.3	60.5	NM	NM
9:19	14	200	0.26	2.8	16	1.8	14.2	61	NM	NM

Analytical Samples

Can ID + FC ID	1374/4038	Analytical Method	TO-15 + Helium	Initial Pressure (in-Hg)	-30
Sample ID	SG-105S	Time to Fill (min)	17	Final Pressure (in-Hg)	-4
Helium Percentage in Shroud During Sampling:		18	Start Time: 9:20	Stop Time:	9:37

Final Purge Data

Time	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)		
9:37	200	0.26	20	1.8	14.3	61	NM	NM		

Abbreviations:
ppm - parts per million
in-H20 - inches of water column
mL/min - milliliters per minute
ppb - parts per billion
O_2- oxygen
CO_2 - carbon dioxide
CH_4 - methane
mL - milliliters
min - minutes
PID- Photoionization Detector
TVOCs - Total Volatile Organic Compounds

Other Comments or Notes: TVOCs or Helium concentrations in exhaust not measured due measured due to CH_4 concentration.
NM-Not Measured. N/A= Not Applicable

SG-105S

Site:	Tidewater, Pawtucket, RI	Total Depth (ft):	5	Date:	7/28/2015
Probe ID:	SG-105S	Casing Volume (mL):	250	Weather:	Sunny 90s
GZA Job No:	43654	Tubing Volume (mL):	50	Field Personnel:	SDN
Start Location Time:	10:30	Stop Location Time:	11:45	Start Purging Time:	10:50

Field Calibration

Photoionization Detector			Lantec Landfill Gas Meter			Helium Detector		
Zero (with filter)	0 ppm	0	O_2	20.9%	20.8	Detector #1	0%	0
Span Gas	10 ppm	10	CO_2	0%	0	Detector #2	0%	N/A
			CH_4	0%	0			

Ambient Air Screening								Casing Volume
Initial				Final				1" rods - 50 mL/ft
O_2	20.8	CH_4	0	O_2	20.8	CH_4	0	**Tubing Volume**
CO_2	0	PID	0	CO_2	0	PID	0	1/4 " tubing - 10 mL/ft

Initial Pressure Test

Test #	Pressure (in-H_2O)	Time Held	Notes:
1	250	2 Mins	Okay

Purge Data

Time	Elapsed Time (min)	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Total Volume Purged	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)
10:50	0	200	1.50	0	9.7	0	11.8	41.2	NM	NM
10:52	2	200	1.50	0.4	10.1	0	11.8	41.3	NM	NM
10:54	4	200	1.60	0.8	10.2	0	11.8	41.3	NM	NM
10:56	6	200	1.60	1.2	10.2	0	11.8	41.2	NM	NM
10:58	8	200	1.60	1.6	10.2	0	11.8	41.3	NM	NM
11:00	10	200	1.60	2	10.2	0	11.8	41.3	NM	NM
11:02	12	200	1.50	2.4	10.1	0	11.8	41.3	NM	NM

Analytical Samples

Can ID + FC ID	1132/4301	Analytical Method	TO-15 + Helium	Initial Pressure (in-Hg)	-29
Sample ID	SG-105S	Time to Fill (min)	15	Final Pressure (in-Hg)	-4
Helium Percentage in Shroud During Sampling:		12	Start Time: 11:13	Stop Time:	11:28

Final Purge Data

Time	Pump Flow Rate (mL/min)	Vacuum (in-H_20)	Helium (%) in Shroud	O_2 (%)	CO_2 (%)	CH_4 (%)	TVOCs (ppb)	Helium (ppm)		
11:30	200	1.6	10.1	0	11.8	41.3	NM	NM		

Abbreviations:
ppm - parts per million
in-H20 - inches of water column
mL/min - milliliters per minute
ppb - parts per billion
O_2- oxygen
CO_2 - carbon dioxide
CH_4 - methane
mL - milliliters
min - minutes
PID- Photoionization Detector
TVOCs - Total Volatile Organic Compounds

Other Comments or Notes: TVOCs or Helium concentrations in exhaust not measured due measured due to CH_4 concentration.
NM-Not Measured. N/A= Not Applicable

APPENDIX C

ANALYTICAL LABORATORY CERTIFICATES

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 5, 2014

Margaret Kilpatrick
GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909

Project Location: Pawtucket, RI
Client Job Number:
Project Number: 43654
Laboratory Work Order Number: 14J1321

Enclosed are results of analyses for samples received by the laboratory on October 27, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa A. Worthington
Project Manager

Table of Contents

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909
ATTN: Margaret Kilpatrick

REPORT DATE: 11/5/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 43654

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14J1321

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Pawtucket, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SG-105S	14J1321-01	Soil Gas		EPA 3C	
				EPA TO-15	
Ambient-102414	14J1321-02	Ambient Air		EPA TO-15	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

B

Analyte is found in the associated blank as well as in the sample.

Analyte & Samples(s) Qualified:

Acetone
14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1

B-05

Data is not affected by elevated level in blank since sample(s) result is "Not Detected".

Analyte & Samples(s) Qualified:

Acetone
14J1321-01[SG-105S]

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1

Hexachlorobutadiene
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1

Naphthalene
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dichloropropane
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1, S007005-CCV1

Benzene
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1, S007005-CCV1

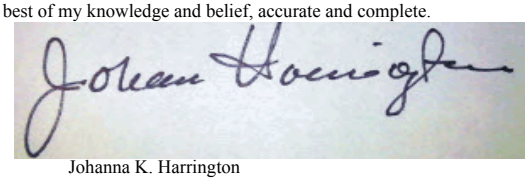
Chloromethane
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1, S007005-CCV1

Isopropanol
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1, S007005-CCV1

trans-1,2-Dichloroethylene
14J1321-01[SG-105S], 14J1321-02[Ambient-102414], B108756-BLK1, B108756-BS1, S007005-CCV1

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Johanna K. Harrington
Manager, Laboratory Reporting

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 10/27/2014
Field Sample #: SG-105S
Sample ID: 14J1321-01
Sample Matrix: Soil Gas
Sampled: 10/24/2014 10:07

Sample Description/Location:
Sub Description/Location:
Canister ID: 1362
Canister Size: 3 liter
Flow Controller ID: 4205
Sample Type: 15 min

Work Order: 14J1321
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -1.5
Receipt Vacuum(in Hg): -2.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling: <20%

EPA 3C

Analyte	% Results	RL	Flag/Qual	Dilution	Date/Time Analyzed	Analyst
Helium	ND	0.40		1	11/3/14 16:01	WSD

EPA TO-15

Analyte	ppbv Results	RL	Flag/Qual	ug/m3 Results	RL	Dilution	Date/Time Analyzed	Analyst
Acetone	ND	8.0	B-05	ND	19	4	11/1/14 0:51	WSD
Benzene	85	0.20	V-05	270	0.64	4	11/1/14 0:51	WSD
Benzyl chloride	ND	0.20		ND	1.0	4	11/1/14 0:51	WSD
Bromodichloromethane	ND	0.10		ND	0.67	4	11/1/14 0:51	WSD
Bromoform	ND	0.20		ND	2.1	4	11/1/14 0:51	WSD
Bromomethane	ND	0.20		ND	0.78	4	11/1/14 0:51	WSD
1,3-Butadiene	ND	0.20		ND	0.44	4	11/1/14 0:51	WSD
2-Butanone (MEK)	ND	8.0		ND	24	4	11/1/14 0:51	WSD
Carbon Disulfide	ND	2.0		ND	6.2	4	11/1/14 0:51	WSD
Carbon Tetrachloride	ND	0.10		ND	0.63	4	11/1/14 0:51	WSD
Chlorobenzene	ND	0.20		ND	0.92	4	11/1/14 0:51	WSD
Chloroethane	ND	0.20		ND	0.53	4	11/1/14 0:51	WSD
Chloroform	ND	0.10		ND	0.49	4	11/1/14 0:51	WSD
Chloromethane	ND	0.40	V-05	ND	0.83	4	11/1/14 0:51	WSD
Cyclohexane	44	0.20		150	0.69	4	11/1/14 0:51	WSD
Dibromochloromethane	ND	0.10		ND	0.85	4	11/1/14 0:51	WSD
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	4	11/1/14 0:51	WSD
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	11/1/14 0:51	WSD
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	11/1/14 0:51	WSD
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	11/1/14 0:51	WSD
Dichlorodifluoromethane (Freon 12)	ND	0.20		ND	0.99	4	11/1/14 0:51	WSD
1,1-Dichloroethane	ND	0.10		ND	0.40	4	11/1/14 0:51	WSD
1,2-Dichloroethane	ND	0.10		ND	0.40	4	11/1/14 0:51	WSD
1,1-Dichloroethylene	1.6	0.10		6.4	0.40	4	11/1/14 0:51	WSD
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	11/1/14 0:51	WSD
trans-1,2-Dichloroethylene	ND	0.10	V-05	ND	0.40	4	11/1/14 0:51	WSD
1,2-Dichloropropane	ND	0.10	V-05	ND	0.46	4	11/1/14 0:51	WSD
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	4	11/1/14 0:51	WSD
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	4	11/1/14 0:51	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	11/1/14 0:51	WSD
1,4-Dioxane	ND	2.0		ND	7.2	4	11/1/14 0:51	WSD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 10/27/2014
Field Sample #: SG-105S
Sample ID: 14J1321-01
Sample Matrix: Soil Gas
Sampled: 10/24/2014 10:07

Sample Description/Location:
Sub Description/Location:
Canister ID: 1362
Canister Size: 3 liter
Flow Controller ID: 4205
Sample Type: 15 min

Work Order: 14J1321
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -1.5
Receipt Vacuum(in Hg): -2.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Ethanol	ND	8.0		ND	15	4	11/1/14 0:51	WSD
Ethyl Acetate	ND	0.20		ND	0.72	4	11/1/14 0:51	WSD
Ethylbenzene	1.8	0.20		7.8	0.87	4	11/1/14 0:51	WSD
4-Ethyltoluene	1.8	0.20		8.6	0.98	4	11/1/14 0:51	WSD
Heptane	29	0.20		120	0.82	4	11/1/14 0:51	WSD
Hexachlorobutadiene	ND	0.20	L-03	ND	2.1	4	11/1/14 0:51	WSD
Hexane	42	8.0		150	28	4	11/1/14 0:51	WSD
2-Hexanone (MBK)	ND	0.20		ND	0.82	4	11/1/14 0:51	WSD
Indane	0.90	0.52		4.4	2.5	4	11/1/14 0:51	WSD
Indene	ND	0.53		ND	2.5	4	11/1/14 0:51	WSD
Isopropanol	ND	8.0	V-05	ND	20	4	11/1/14 0:51	WSD
Isopropylbenzene (Cumene)	2.7	0.51		13	2.5	4	11/1/14 0:51	WSD
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	11/1/14 0:51	WSD
Methylene Chloride	ND	2.0		ND	6.9	4	11/1/14 0:51	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	11/1/14 0:51	WSD
Naphthalene	ND	0.20	L-03	ND	1.0	4	11/1/14 0:51	WSD
Propene	ND	8.0		ND	14	4	11/1/14 0:51	WSD
Styrene	ND	0.20		ND	0.85	4	11/1/14 0:51	WSD
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	4	11/1/14 0:51	WSD
Tetrachloroethylene	0.82	0.10		5.5	0.68	4	11/1/14 0:51	WSD
Tetrahydrofuran	ND	0.20		ND	0.59	4	11/1/14 0:51	WSD
Toluene	2.6	0.20		9.9	0.75	4	11/1/14 0:51	WSD
1,2,4-Trichlorobenzene	ND	0.20	L-03	ND	1.5	4	11/1/14 0:51	WSD
1,1,1-Trichloroethane	ND	0.10		ND	0.55	4	11/1/14 0:51	WSD
1,1,2-Trichloroethane	ND	0.10		ND	0.55	4	11/1/14 0:51	WSD
Trichloroethylene	ND	0.10		ND	0.54	4	11/1/14 0:51	WSD
Trichlorofluoromethane (Freon 11)	ND	0.20		ND	1.1	4	11/1/14 0:51	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.20		ND	1.5	4	11/1/14 0:51	WSD
1,2,4-Trimethylbenzene	6.8	0.20		33	0.98	4	11/1/14 0:51	WSD
1,3,5-Trimethylbenzene	5.2	0.20		25	0.98	4	11/1/14 0:51	WSD
Vinyl Acetate	ND	4.0		ND	14	4	11/1/14 0:51	WSD
Vinyl Chloride	ND	0.10		ND	0.26	4	11/1/14 0:51	WSD
m&p-Xylene	16	0.40		71	1.7	4	11/1/14 0:51	WSD
o-Xylene	5.4	0.20		23	0.87	4	11/1/14 0:51	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	106	70-130	11/1/14 0:51

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 10/27/2014
Field Sample #: SG-105S
Sample ID: 14J1321-01
Sample Matrix: Soil Gas
Sampled: 10/24/2014 10:07

Sample Description/Location:
Sub Description/Location:
Canister ID: 1362
Canister Size: 3 liter
Flow Controller ID: 4205
Sample Type: 15 min

Work Order: 14J1321
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -1.5
Receipt Vacuum(in Hg): -2.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Surrogates	% Recovery			% REC Limits				
4-Bromofluorobenzene (2)	113			70-130			11/1/14 0:51	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 10/27/2014
Field Sample #: Ambient-102414
Sample ID: 14J1321-02
Sample Matrix: Ambient Air
Sampled: 10/24/2014 15:00

Sample Description/Location:
Sub Description/Location:
Canister ID: 2083
Canister Size: 3 liter
Flow Controller ID: 3015
Sample Type: 8 hr

Work Order: 14J1321
Initial Vacuum(in Hg): -31
Final Vacuum(in Hg): -5.5
Receipt Vacuum(in Hg): -3.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Acetone	7.7	1.4	B	18	3.3	0.702	10/31/14 18:18	WSD
Benzene	0.095	0.035	V-05	0.30	0.11	0.702	10/31/14 18:18	WSD
Benzyl chloride	ND	0.035		ND	0.18	0.702	10/31/14 18:18	WSD
Bromodichloromethane	ND	0.018		ND	0.12	0.702	10/31/14 18:18	WSD
Bromoform	ND	0.035		ND	0.36	0.702	10/31/14 18:18	WSD
Bromomethane	ND	0.035		ND	0.14	0.702	10/31/14 18:18	WSD
1,3-Butadiene	ND	0.035		ND	0.078	0.702	10/31/14 18:18	WSD
2-Butanone (MEK)	ND	1.4		ND	4.1	0.702	10/31/14 18:18	WSD
Carbon Disulfide	ND	0.35		ND	1.1	0.702	10/31/14 18:18	WSD
Carbon Tetrachloride	0.050	0.018		0.31	0.11	0.702	10/31/14 18:18	WSD
Chlorobenzene	ND	0.035		ND	0.16	0.702	10/31/14 18:18	WSD
Chloroethane	ND	0.035		ND	0.093	0.702	10/31/14 18:18	WSD
Chloroform	ND	0.018		ND	0.086	0.702	10/31/14 18:18	WSD
Chloromethane	0.30	0.070	V-05	0.62	0.14	0.702	10/31/14 18:18	WSD
Cyclohexane	ND	0.035		ND	0.12	0.702	10/31/14 18:18	WSD
Dibromochloromethane	ND	0.018		ND	0.15	0.702	10/31/14 18:18	WSD
1,2-Dibromoethane (EDB)	ND	0.018		ND	0.13	0.702	10/31/14 18:18	WSD
1,2-Dichlorobenzene	ND	0.035		ND	0.21	0.702	10/31/14 18:18	WSD
1,3-Dichlorobenzene	ND	0.035		ND	0.21	0.702	10/31/14 18:18	WSD
1,4-Dichlorobenzene	ND	0.035		ND	0.21	0.702	10/31/14 18:18	WSD
Dichlorodifluoromethane (Freon 12)	0.29	0.035		1.4	0.17	0.702	10/31/14 18:18	WSD
1,1-Dichloroethane	ND	0.018		ND	0.071	0.702	10/31/14 18:18	WSD
1,2-Dichloroethane	ND	0.018		ND	0.071	0.702	10/31/14 18:18	WSD
1,1-Dichloroethylene	ND	0.018		ND	0.070	0.702	10/31/14 18:18	WSD
cis-1,2-Dichloroethylene	ND	0.018		ND	0.070	0.702	10/31/14 18:18	WSD
trans-1,2-Dichloroethylene	ND	0.018	V-05	ND	0.070	0.702	10/31/14 18:18	WSD
1,2-Dichloropropane	ND	0.018	V-05	ND	0.081	0.702	10/31/14 18:18	WSD
cis-1,3-Dichloropropene	ND	0.018		ND	0.080	0.702	10/31/14 18:18	WSD
trans-1,3-Dichloropropene	ND	0.018		ND	0.080	0.702	10/31/14 18:18	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25	0.702	10/31/14 18:18	WSD
1,4-Dioxane	ND	0.35		ND	1.3	0.702	10/31/14 18:18	WSD
Ethanol	2.6	1.4		5.0	2.6	0.702	10/31/14 18:18	WSD
Ethyl Acetate	0.091	0.035		0.33	0.13	0.702	10/31/14 18:18	WSD
Ethylbenzene	ND	0.035		ND	0.15	0.702	10/31/14 18:18	WSD
4-Ethyltoluene	ND	0.035		ND	0.17	0.702	10/31/14 18:18	WSD
Heptane	ND	0.035		ND	0.14	0.702	10/31/14 18:18	WSD
Hexachlorobutadiene	ND	0.035	L-03	ND	0.37	0.702	10/31/14 18:18	WSD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 10/27/2014
Field Sample #: Ambient-102414
Sample ID: 14J1321-02
Sample Matrix: Ambient Air
Sampled: 10/24/2014 15:00

Sample Description/Location:
Sub Description/Location:
Canister ID: 2083
Canister Size: 3 liter
Flow Controller ID: 3015
Sample Type: 8 hr

Work Order: 14J1321
Initial Vacuum(in Hg): -31
Final Vacuum(in Hg): -5.5
Receipt Vacuum(in Hg): -3.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	1.4		ND	4.9	0.702	10/31/14 18:18	WSD
2-Hexanone (MBK)	0.054	0.035		0.22	0.14	0.702	10/31/14 18:18	WSD
Indane	ND	0.091		ND	0.44	0.702	10/31/14 18:18	WSD
Indene	ND	0.093		ND	0.44	0.702	10/31/14 18:18	WSD
Isopropanol	ND	1.4	V-05	ND	3.4	0.702	10/31/14 18:18	WSD
Isopropylbenzene (Cumene)	ND	0.089		ND	0.44	0.702	10/31/14 18:18	WSD
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	10/31/14 18:18	WSD
Methylene Chloride	0.49	0.35		1.7	1.2	0.702	10/31/14 18:18	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	10/31/14 18:18	WSD
Naphthalene	ND	0.035	L-03	ND	0.18	0.702	10/31/14 18:18	WSD
Propene	ND	1.4		ND	2.4	0.702	10/31/14 18:18	WSD
Styrene	ND	0.035		ND	0.15	0.702	10/31/14 18:18	WSD
1,1,2,2-Tetrachloroethane	ND	0.018		ND	0.12	0.702	10/31/14 18:18	WSD
Tetrachloroethylene	ND	0.018		ND	0.12	0.702	10/31/14 18:18	WSD
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	10/31/14 18:18	WSD
Toluene	0.082	0.035		0.31	0.13	0.702	10/31/14 18:18	WSD
1,2,4-Trichlorobenzene	ND	0.035	L-03	ND	0.26	0.702	10/31/14 18:18	WSD
1,1,1-Trichloroethane	ND	0.018		ND	0.096	0.702	10/31/14 18:18	WSD
1,1,2-Trichloroethane	ND	0.018		ND	0.096	0.702	10/31/14 18:18	WSD
Trichloroethylene	ND	0.018		ND	0.094	0.702	10/31/14 18:18	WSD
Trichlorofluoromethane (Freon 11)	0.42	0.035		2.4	0.20	0.702	10/31/14 18:18	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.29	0.035		2.2	0.27	0.702	10/31/14 18:18	WSD
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	10/31/14 18:18	WSD
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	10/31/14 18:18	WSD
Vinyl Acetate	ND	0.70		ND	2.5	0.702	10/31/14 18:18	WSD
Vinyl Chloride	ND	0.018		ND	0.045	0.702	10/31/14 18:18	WSD
m&p-Xylene	ND	0.070		ND	0.30	0.702	10/31/14 18:18	WSD
o-Xylene	ND	0.035		ND	0.15	0.702	10/31/14 18:18	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	10/31/14 18:18
4-Bromofluorobenzene (2)	96.1	70-130	10/31/14 18:18

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: TO-15 Prep-EPA 3C

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
14J1321-01 [SG-105S]	B108772	1	1	N/A	1000	0.5	0.5	11/03/14

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
14J1321-01 [SG-105S]	B108756	1.5	1	N/A	1000	400	150	10/31/14
14J1321-02 [Ambient-102414]	B108756	1.5	1	N/A	1000	400	855	10/31/14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Miscellaneous Air Analyses - Quality Control

Analyte	% Results	% RL	ug/m3 Results	ug/m3 RL	Spike Level %	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B108772 - TO-15 Prep											
Blank (B108772-BLK1)					Prepared & Analyzed: 11/03/14						
Helium	ND	0.40									
Duplicate (B108772-DUP1)			**Source: 14J1321-01**		Prepared & Analyzed: 11/03/14						
Helium	ND	0.40				0.0				25	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B108756 - TO-15 Prep											
Blank (B108756-BLK1)					Prepared & Analyzed: 10/31/14						
Acetone	3.0	1.0									B
Benzene	ND	0.025									V-05
Benzyl chloride	ND	0.025									
Bromodichloromethane	ND	0.012									
Bromoform	ND	0.025									
Bromomethane	ND	0.025									
1,3-Butadiene	ND	0.025									
2-Butanone (MEK)	ND	1.0									
Carbon Disulfide	ND	0.25									
Carbon Tetrachloride	ND	0.012									
Chlorobenzene	ND	0.025									
Chloroethane	ND	0.025									
Chloroform	ND	0.012									
Chloromethane	ND	0.050									V-05
Cyclohexane	ND	0.025									
Dibromochloromethane	ND	0.012									
1,2-Dibromoethane (EDB)	ND	0.012									
1,2-Dichlorobenzene	ND	0.025									
1,3-Dichlorobenzene	ND	0.025									
1,4-Dichlorobenzene	ND	0.025									
Dichlorodifluoromethane (Freon 12)	ND	0.025									
1,1-Dichloroethane	ND	0.012									
1,2-Dichloroethane	ND	0.012									
1,1-Dichloroethylene	ND	0.012									
cis-1,2-Dichloroethylene	ND	0.012									
trans-1,2-Dichloroethylene	ND	0.012									V-05
1,2-Dichloropropane	ND	0.012									V-05
cis-1,3-Dichloropropene	ND	0.012									
trans-1,3-Dichloropropene	ND	0.012									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.025									
1,4-Dioxane	ND	0.25									
Ethanol	ND	1.0									
Ethyl Acetate	ND	0.025									
Ethylbenzene	ND	0.025									
4-Ethyltoluene	ND	0.025									
Heptane	ND	0.025									
Hexachlorobutadiene	ND	0.025									L-03
Hexane	ND	1.0									
2-Hexanone (MBK)	ND	0.025									
Indane	ND	0.064									
Indene	ND	0.066									
Isopropanol	ND	1.0									V-05
Isopropylbenzene (Cumene)	ND	0.064									
Methyl tert-Butyl Ether (MTBE)	ND	0.025									
Methylene Chloride	ND	0.25									
4-Methyl-2-pentanone (MIBK)	ND	0.025									

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B108756 - TO-15 Prep											
Blank (B108756-BLK1)					Prepared & Analyzed: 10/31/14						
Naphthalene	ND	0.025									L-03
Propene	ND	1.0									
Styrene	ND	0.025									
1,1,2,2-Tetrachloroethane	ND	0.012									
Tetrachloroethylene	ND	0.012									
Tetrahydrofuran	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	ND	0.025									L-03
1,1,1-Trichloroethane	ND	0.012									
1,1,2-Trichloroethane	ND	0.012									
Trichloroethylene	ND	0.012									
Trichlorofluoromethane (Freon 11)	ND	0.025									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.025									
1,2,4-Trimethylbenzene	ND	0.025									
1,3,5-Trimethylbenzene	ND	0.025									
Vinyl Acetate	ND	0.50									
Vinyl Chloride	ND	0.012									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
Surrogate: 4-Bromofluorobenzene (1)	*8.08*				*8.00*		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*7.73*				*8.00*		*96.6*	*70-130*			
LCS (B108756-BS1)					Prepared & Analyzed: 10/31/14						
Acetone	5.08				5.00		102	70-130			B
Benzene	3.85				5.00		77.0	70-130			V-05
Benzyl chloride	4.46				5.00		89.1	70-130			
Bromodichloromethane	4.21				5.00		84.2	70-130			
Bromoform	4.30				5.00		85.9	70-130			
Bromomethane	4.20				5.00		84.0	70-130			
1,3-Butadiene	3.93				5.00		78.6	70-130			
2-Butanone (MEK)	4.66				5.00		93.2	70-130			
Carbon Disulfide	3.97				5.00		79.5	70-130			
Carbon Tetrachloride	4.81				5.00		96.2	70-130			
Chlorobenzene	4.32				5.00		86.5	70-130			
Chloroethane	4.06				5.00		81.1	70-130			
Chloroform	4.47				5.00		89.3	70-130			
Chloromethane	3.80				5.00		76.0	70-130			V-05
Cyclohexane	4.02				5.00		80.3	70-130			
Dibromochloromethane	4.52				5.00		90.4	70-130			
1,2-Dibromoethane (EDB)	4.04				5.00		80.8	70-130			
1,2-Dichlorobenzene	3.56				5.00		71.1	70-130			
1,3-Dichlorobenzene	3.99				5.00		79.8	70-130			
1,4-Dichlorobenzene	3.82				5.00		76.4	70-130			
Dichlorodifluoromethane (Freon 12)	4.66				5.00		93.3	70-130			
1,1-Dichloroethane	4.16				5.00		83.3	70-130			
1,2-Dichloroethane	4.57				5.00		91.4	70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B108756 - TO-15 Prep												
LCS (B108756-BS1)					Prepared & Analyzed: 10/31/14							
1,1-Dichloroethylene	4.38				5.00		87.6		70-130			
cis-1,2-Dichloroethylene	4.09				5.00		81.8		70-130			
trans-1,2-Dichloroethylene	3.94				5.00		78.8		70-130			V-05
1,2-Dichloropropane	3.70				5.00		74.0		70-130			V-05
cis-1,3-Dichloropropene	4.20				5.00		84.0		70-130			
trans-1,3-Dichloropropene	4.29				5.00		85.8		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.21				5.00		84.2		70-130			
1,4-Dioxane	3.53				5.00		70.6		70-130			
Ethanol	4.36				5.00		87.3		70-130			
Ethyl Acetate	4.51				5.00		90.2		70-130			
Ethylbenzene	4.41				5.00		88.1		70-130			
4-Ethyltoluene	4.34				5.00		86.9		70-130			
Heptane	4.72				5.00		94.4		70-130			
Hexachlorobutadiene	2.92				5.00		**58.5**	*	70-130			L-03
Hexane	4.68				5.00		93.6		70-130			
2-Hexanone (MBK)	4.00				5.00		80.0		70-130			
Indane	1.04				1.29		80.2		70-130			
Indene	1.06				1.32		80.2		70-130			
Isopropanol	3.96				5.00		79.3		70-130			V-05
Isopropylbenzene (Cumene)	1.04				1.27		81.7		70-130			
Methyl tert-Butyl Ether (MTBE)	3.88				5.00		77.7		70-130			
Methylene Chloride	4.37				5.00		87.3		70-130			
4-Methyl-2-pentanone (MIBK)	4.40				5.00		87.9		70-130			
Naphthalene	3.35				5.00		**67.0**	*	70-130			L-03
Propene	4.79				5.00		95.7		70-130			
Styrene	4.38				5.00		87.7		70-130			
1,1,2,2-Tetrachloroethane	3.65				5.00		73.0		70-130			
Tetrachloroethylene	4.47				5.00		89.5		70-130			
Tetrahydrofuran	4.03				5.00		80.6		70-130			
Toluene	4.37				5.00		87.5		70-130			
1,2,4-Trichlorobenzene	2.69				5.00		**53.9**	*	70-130			L-03
1,1,1-Trichloroethane	4.42				5.00		88.4		70-130			
1,1,2-Trichloroethane	4.07				5.00		81.4		70-130			
Trichloroethylene	4.11				5.00		82.3		70-130			
Trichlorofluoromethane (Freon 11)	5.58				5.00		112		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.63				5.00		92.7		70-130			
1,2,4-Trimethylbenzene	4.02				5.00		80.4		70-130			
1,3,5-Trimethylbenzene	4.44				5.00		88.7		70-130			
Vinyl Acetate	5.21				5.00		104		70-130			
Vinyl Chloride	4.46				5.00		89.1		70-130			
m&p-Xylene	9.64				10.0		96.4		70-130			
o-Xylene	4.47				5.00		89.4		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.42*				*8.00*		*105*		*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*7.90*				*8.00*		*98.8*		*70-130*			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B	Analyte is found in the associated blank as well as in the sample.
B-05	Data is not affected by elevated level in blank since sample(s) result is "Not Detected".
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S007005-CCV1)			Lab File ID: G103104.D			Analyzed: 10/31/14 13:11			
Bromochloromethane (1)	469507	8.768	504192	8.786	93	60 - 140	-0.0180	+/-0.50	
1,4-Difluorobenzene (1)	1321411	10.646	1391643	10.671	95	60 - 140	-0.0250	+/-0.50	
Chlorobenzene-d5 (1)	1112935	15.413	1251346	15.43	89	60 - 140	-0.0170	+/-0.50	
LCS (B108756-BS1)			Lab File ID: G103106.D			Analyzed: 10/31/14 14:09			
Bromochloromethane (1)	478828	8.768	469507	8.768	102	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1375927	10.654	1321411	10.646	104	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (1)	1212357	15.413	1112935	15.413	109	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (2)	1302684	10.646	1336548	10.638	97	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (2)	252753	15.413	261635	15.413	97	60 - 140	0.0000	+/-0.50	
Blank (B108756-BLK1)			Lab File ID: G103108.D			Analyzed: 10/31/14 17:33			
Bromochloromethane (1)	416859	8.777	469507	8.768	89	60 - 140	0.0090	+/-0.50	
1,4-Difluorobenzene (1)	1125490	10.654	1321411	10.646	85	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (1)	987675	15.413	1112935	15.413	89	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (2)	1125490	10.654	1336548	10.638	84	60 - 140	0.0160	+/-0.50	
Chlorobenzene-d5 (2)	219651	15.413	261635	15.413	84	60 - 140	0.0000	+/-0.50	
Ambient-102414 (14J1321-02)			Lab File ID: G103109.D			Analyzed: 10/31/14 18:18			
Bromochloromethane (1)	431396	8.768	469507	8.768	92	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1156819	10.646	1321411	10.646	88	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	1055618	15.413	1112935	15.413	95	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (2)	1156819	10.646	1336548	10.638	87	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (2)	233998	15.413	261635	15.413	89	60 - 140	0.0000	+/-0.50	
SG-105S (14J1321-01)			Lab File ID: G103118.D			Analyzed: 11/01/14 00:51			
Bromochloromethane (1)	525110	8.76	469507	8.768	112	60 - 140	-0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1573319	10.646	1321411	10.646	119	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	1451318	15.404	1112935	15.413	130	60 - 140	-0.0090	+/-0.50	
1,4-Difluorobenzene (2)	1573839	10.646	1336548	10.638	118	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (2)	288847	15.404	261635	15.413	110	60 - 140	-0.0090	+/-0.50	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CONTINUING CALIBRATION CHECK

EPA TO-15

S007005-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Acetone	A	5.00	4.28	0.6517469	0.5582162		-14.4	30	
Benzene	A	5.00	3.49	0.8942447	0.6240953		-30.2	30	*
Benzyl chloride	A	5.00	5.21	0.7819351	0.8145683		4.2	30	
Bromodichloromethane	A	5.00	3.93	0.6024274	0.4731016		-21.5	30	
Bromoform	A	5.00	4.52	0.5251071	0.474358		-9.7	30	
Bromomethane	A	5.00	3.97	0.628712	0.4988245		-20.7	30	
1,3-Butadiene	A	5.00	3.55	0.3792058	0.2689664		-29.1	30	
2-Butanone (MEK)	A	5.00	4.58	1.267082	1.160032		-8.4	30	
Carbon Disulfide	A	5.00	3.51	2.143665	1.506735		-29.7	30	
Carbon Tetrachloride	A	5.00	4.42	0.4914556	0.4343599		-11.6	30	
Chlorobenzene	A	5.00	4.35	0.884138	0.7699483		-12.9	30	
Chloroethane	A	5.00	3.68	0.2819568	0.2078095		-26.3	30	
Chloroform	A	5.00	4.06	1.57814	1.280536		-18.9	30	
Chloromethane	A	5.00	3.10	0.5481299	0.3396448		-38.0	30	*
Cyclohexane	A	5.00	3.71	0.3737589	0.2776184		-25.7	30	
Dibromochloromethane	A	5.00	4.50	0.5874548	0.529273		-9.9	30	
1,2-Dibromoethane (EDB)	A	5.00	4.03	0.6051551	0.4879336		-19.4	30	
1,2-Dichlorobenzene	A	5.00	4.26	0.7348896	0.6264359		-14.8	30	
1,3-Dichlorobenzene	A	5.00	4.66	0.7874897	0.7338132		-6.8	30	
1,4-Dichlorobenzene	A	5.00	4.42	0.7922155	0.7008668		-11.5	30	
Dichlorodifluoromethane (Freon 12)	A	5.00	4.38	1.784229	1.564296		-12.3	30	
1,1-Dichloroethane	A	5.00	3.74	1.419752	1.063495		-25.1	30	
1,2-Dichloroethane	A	5.00	4.15	1.008311	0.8361383		-17.1	30	
1,1-Dichloroethylene	A	5.00	3.87	1.096519	0.8478647		-22.7	30	
cis-1,2-Dichloroethylene	A	5.00	3.55	1.067416	0.7569438		-29.1	30	
trans-1,2-Dichloroethylene	A	5.00	3.45	1.077323	0.7425593		-31.1	30	*
1,2-Dichloropropane	A	5.00	3.41	0.3618054	0.2468319		-31.8	30	*
cis-1,3-Dichloropropene	A	5.00	3.84	0.437819	0.3360904		-23.2	30	
trans-1,3-Dichloropropene	A	5.00	4.01	0.4163178	0.3336167		-19.9	30	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	3.68	1.762348	1.298717		-26.3	30	
1,4-Dioxane	A	5.00	3.80	0.1837701	0.1396422		-24.0	30	
Ethanol	A	5.00	3.79	0.1383791	0.104968		-24.1	30	
Ethyl Acetate	A	5.00	4.42	0.2184979	0.1932614		-11.6	30	
Ethylbenzene	A	5.00	4.46	1.335633	1.191765		-10.8	30	
4-Ethyltoluene	A	5.00	4.77	1.327228	1.267357		-4.5	30	
Heptane	A	5.00	4.34	0.2483239	0.2157899		-13.1	30	
Hexachlorobutadiene	A	5.00	4.76	0.4770225	0.4544898		-4.7	30	
Hexane	A	5.00	4.22	0.8138059	0.686555		-15.6	30	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CONTINUING CALIBRATION CHECK

EPA TO-15

S007005-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
2-Hexanone (MBK)	A	5.00	4.43	0.6602144	0.5847127		-11.4	30	
Isopropanol	A	5.00	3.43	0.7469515	0.5120912		-31.4	30	*
Methyl tert-Butyl Ether (MTBE)	A	5.00	3.67	1.775522	1.30203		-26.7	30	
Methylene Chloride	A	5.00	3.95	0.8989836	0.7096261		-21.1	30	
4-Methyl-2-pentanone (MIBK)	A	5.00	4.58	0.57191	0.523432		-8.5	30	
Naphthalene	A	5.00	4.11	1.350914	1.111372		-17.7	30	
Propene	A	5.00	4.30	0.528133	0.4546556		-13.9	30	
Styrene	A	5.00	4.43	0.749994	0.6640517		-11.5	30	
1,1,2,2-Tetrachloroethane	A	5.00	4.13	0.9423023	0.7782018		-17.4	30	
Tetrachloroethylene	A	5.00	4.27	0.459785	0.392644		-14.6	30	
Tetrahydrofuran	A	5.00	3.91	0.3133766	0.2452479		-21.7	30	
Toluene	A	5.00	4.24	1.069888	0.9071495		-15.2	30	
1,2,4-Trichlorobenzene	A	5.00	4.07	0.530782	0.4319045		-18.6	30	
1,1,1-Trichloroethane	A	5.00	4.07	0.5060595	0.4119887		-18.6	30	
1,1,2-Trichloroethane	A	5.00	4.09	0.4037585	0.3299125		-18.3	30	
Trichloroethylene	A	5.00	3.73	0.3767178	0.281085		-25.4	30	
Trichlorofluoromethane (Freon 11)	A	5.00	4.86	1.469825	1.429745		-2.7	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	4.25	1.348989	1.147045		-15.0	30	
1,2,4-Trimethylbenzene	A	5.00	4.58	1.145482	1.050382		-8.3	30	
1,3,5-Trimethylbenzene	A	5.00	5.01	1.124122	1.126216		0.2	30	
Vinyl Acetate	A	5.00	4.84	1.840912	1.780073		-3.3	30	
Vinyl Chloride	A	5.00	3.68	0.587916	0.4333499		-26.3	30	
m&p-Xylene	A	10.0	9.89	1.040292	1.02916		-1.1	30	
o-Xylene	A	5.00	4.67	1.091483	1.018851		-6.7	30	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY,ME
Benzene	AIHA,FL,NJ,NY,VA,ME
Benzyl chloride	AIHA,FL,NJ,NY,VA,ME
Bromodichloromethane	AIHA,NJ,NY,VA,ME
Bromoform	AIHA,NJ,NY,VA,ME
Bromomethane	AIHA,FL,NJ,NY,ME
1,3-Butadiene	AIHA,NJ,NY,VA,ME
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA,ME
Carbon Disulfide	AIHA,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloroform	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
Cyclohexane	AIHA,NJ,NY,VA,ME
Dibromochloromethane	AIHA,NY,ME
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA,ME
trans-1,3-Dichloropropene	AIHA,NY,ME
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,VA,ME
1,4-Dioxane	AIHA,NJ,NY,VA,ME
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA,ME
Hexachlorobutadiene	AIHA,NJ,NY,VA,ME
Hexane	AIHA,FL,NJ,NY,VA,ME
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME
Isopropylbenzene (Cumene)	AIHA,NJ,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME
Naphthalene	NY,ME
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA,ME

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA,ME
Tetrachloroethylene	AIHA,FL,NJ,NY,VA,ME
Tetrahydrofuran	AIHA
Toluene	AIHA,FL,NJ,NY,VA,ME
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA,ME
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
Trichloroethylene	AIHA,FL,NJ,NY,VA,ME
Trichlorofluoromethane (Freon 11)	AIHA,NY,ME
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
Vinyl Acetate	AIHA,FL,NJ,NY,VA,ME
Vinyl Chloride	AIHA,FL,NJ,NY,VA,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2015
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2015
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2015
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015

con-test ANALYTICAL LABORATORY
www.contestlabs.com
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
39 SPRUCE ST
EAST LONGMEADOW, MA 01028

AIR SAMPLE CHAIN OF CUSTODY RECORD

14J1321

Company Name: GZA
Address: 530 BROADWAY
PROVIDENCE, RHODE ISLAND
Attention: MEG KILPATRICK SOPHIA NARKIEWICZ
Project Location: PAWTUCKET, RHODE ISLAND
Sampled By: SOPHIA NARKIEWICZ

Telephone: 401-421-4140
Project #: 43654
Client PO #:

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☐WEBSITE CLIENT
Fax #: snarkiewicz@gza.com
Email: mkilpatrick@gza.com
Format: ☒EXCEL ☒PDF ☐GIS KEY ☐OTHER___

Proposal Provided? (For Billing purposes)
☐yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS: Total Minutes Sampled	Flow Rate M³/Min. or L/Min.	Volume Liters or M³	Matrix Code*	ANALYSIS REQUESTED: TO-15	T-3C HELIUM			"Hg: Initial pressure	"Hg: Final pressure	"Hg: Lab Receipt pressure	Summa Canister ID	Flow Controll ID
1	SG-105S	S	01	10/24/14 9:54	10/24/14 10:07	-	-	-	SG	X	X			-29	-1.5	-2.3	1362	4205
2	AMBIENT-102414	S	02	10/24/14 9:00	10/24/14 15:00	-	-	-	AMB	X				-31	-5.5	-3.8	2093	3015
	DID NOT USE - RETURN ONLY - NO ANALYSIS																1370	4204

Please fill out completely, sign, date and retain the yellow copy for your record.
Summa canisters and flow controllers must returned within 14 day of receipt or rental fe will apply.
For summa canister and flow controller information please refer to Con-Test's A Media Agreement.

Laboratory Comments:

CLIENT COMMENTS:
- PROJECT SPECIFIC TO-15 LIST

Relinquished by: (signature)	Date/Time: 10/24/14 1600	
Received by: (signature)	Date/Time: 10/27/14 1215	
Relinquished by: (signature)	Date/Time: 10/27/14 1455	
Received by: (signature)	Date/Time: 10/27/14 14:55	

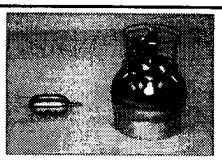
Turnaround **
☒ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

Special Requirements
Regulations: MADEP, NJDEP & CTDEEP
Data Enhancement/RCP? ☐Y ☒N
Enhanced Data Package ☐Y ☒N
(Surchage Applies)
Required Detection Limits: MADEP, NJDEP, CTDEEP
Other:

*Matrix Code:
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other_____

**Media Codes:
S=summa can
T=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other_____

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. NELAC & AIHA-LAP, LLC Accredited/WBE/DBE Certified



www.contestlabs.com

con-test® ANALYTICAL LABORATORY

AIR Only Receipt Checklist

39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

CLIENT NAME: GZA RECEIVED BY: KKM DATE: 10/27/14

1) Was the chain(s) of custody relinquished and signed? (Yes) No

2) Does the chain agree with the samples? (Yes) No
If not, explain:

3) Are all the samples in good condition? (Yes) No
If not, explain:

4) Are there any samples "On Hold"? Yes (No) Stored where:

5) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)
Who was notified _____ Date _____ Time _____

6) Location where samples are stored: Air Lab

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? _____

Containers received at Con-Test

	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	3	3L
Tedlar Bags		
TO-17 Tubes		
Regulators	3	15 min (8 hr. ~~4204~~ 3015) KM
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media: ~~4204~~ KM 1370

Unused Regulators: ~~1370~~ KM 4204 (15 min)

1) Was all media (used & unused) checked into the WASP? yes KM

2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet? yes KM

Laboratory Comments:
1362 4205 (15 min)
2083 3015 (8 hr.)

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	NA	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	NA	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Doc #278 Rev. 4 January 2014

Who notified of False statements?

Log-In Technician Initials: KRM

Date/Time:

Date/Time: 10/27/14

Air Sampling Media Certificate of Analysis

Date Analyzed: 10/3/2014 **Batch #:** 14CC0529

Certification Type: *Batch Certified* ☑ *Individual Certified* ☐

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC1362

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: WSD 11/3/14

Air Sampling Media Certificate of Analysis

Date Analyzed: 9/11/2014 **Batch #:** 14CC0490

Certification Type: *Batch Certified* ☑ *Individual Certified* ☐

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC2003

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: WSD 11/3/14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

February 19, 2015

Margaret Kilpatrick
GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909

Project Location: Pawtucket, RI
Client Job Number:
Project Number: 43654
Laboratory Work Order Number: 15A0882

Enclosed are results of analyses for samples received by the laboratory on January 26, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa A. Worthington
Project Manager

Table of Contents

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909
ATTN: Margaret Kilpatrick

REPORT DATE: 2/19/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 43654

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15A0882

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Pawtucket, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Ambient-12215	15A0882-01	Ambient Air		EPA TO-15	
SG-1055	15A0882-02	Soil Gas		EPA 3C	
				EPA TO-15	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

L-01

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene
B114808-BS1

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Dichlorodifluoromethane (Freon 1
15A0882-01[Ambient-12215], 15A0882-02[SG-1055], B114808-BLK1, B114808-BS1

Isopropylbenzene (Cumene)
15A0882-01RE1[Ambient-12215], 15A0882-02RE1[SG-1055], B115418-BLK1, B115418-BS1

L-05

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Naphthalene
15A0882-02[SG-1055], B114808-BS1

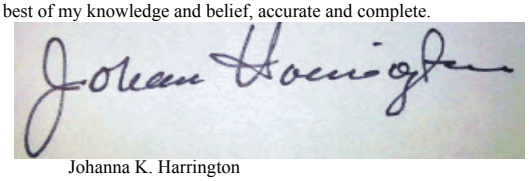
V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Dichlorodifluoromethane (Freon 1
15A0882-01[Ambient-12215], 15A0882-02[SG-1055], B114808-BLK1, B114808-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Johanna K. Harrington
Manager, Laboratory Reporting

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 1/26/2015
Field Sample #: Ambient-12215
Sample ID: 15A0882-01
Sample Matrix: Ambient Air
Sampled: 1/22/2015 16:15

Sample Description/Location:
Sub Description/Location:
Canister ID: 1401
Canister Size: 3 liter
Flow Controller ID: 3404
Sample Type: 8 hr

Work Order: 15A0882
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.9
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Acetone	4.9	1.4		12	3.3	0.702	2/4/15 1:49	WSD
Benzene	0.22	0.035		0.71	0.11	0.702	2/4/15 1:49	WSD
Benzyl chloride	ND	0.035		ND	0.18	0.702	2/4/15 1:49	WSD
Bromodichloromethane	ND	0.018		ND	0.12	0.702	2/4/15 1:49	WSD
Bromoform	ND	0.035		ND	0.36	0.702	2/4/15 1:49	WSD
Bromomethane	ND	0.035		ND	0.14	0.702	2/4/15 1:49	WSD
1,3-Butadiene	ND	0.035		ND	0.078	0.702	2/4/15 1:49	WSD
2-Butanone (MEK)	ND	1.4		ND	4.1	0.702	2/4/15 1:49	WSD
Carbon Disulfide	ND	0.35		ND	1.1	0.702	2/4/15 1:49	WSD
Carbon Tetrachloride	ND	0.018		ND	0.11	0.702	2/4/15 1:49	WSD
Chlorobenzene	ND	0.035		ND	0.16	0.702	2/4/15 1:49	WSD
Chloroethane	ND	0.035		ND	0.093	0.702	2/4/15 1:49	WSD
Chloroform	ND	0.018		ND	0.086	0.702	2/4/15 1:49	WSD
Chloromethane	0.52	0.070		1.1	0.14	0.702	2/4/15 1:49	WSD
Cyclohexane	ND	0.035		ND	0.12	0.702	2/4/15 1:49	WSD
Dibromochloromethane	ND	0.018		ND	0.15	0.702	2/4/15 1:49	WSD
1,2-Dibromoethane (EDB)	ND	0.018		ND	0.13	0.702	2/4/15 1:49	WSD
1,2-Dichlorobenzene	ND	0.035		ND	0.21	0.702	2/4/15 1:49	WSD
1,3-Dichlorobenzene	ND	0.035		ND	0.21	0.702	2/4/15 1:49	WSD
1,4-Dichlorobenzene	ND	0.035		ND	0.21	0.702	2/4/15 1:49	WSD
Dichlorodifluoromethane (Freon 12)	0.16	0.035	L-03, V-05	0.80	0.17	0.702	2/4/15 1:49	WSD
1,1-Dichloroethane	ND	0.018		ND	0.071	0.702	2/4/15 1:49	WSD
1,2-Dichloroethane	ND	0.018		ND	0.071	0.702	2/4/15 1:49	WSD
1,1-Dichloroethylene	ND	0.018		ND	0.070	0.702	2/4/15 1:49	WSD
cis-1,2-Dichloroethylene	ND	0.018		ND	0.070	0.702	2/4/15 1:49	WSD
trans-1,2-Dichloroethylene	ND	0.018		ND	0.070	0.702	2/4/15 1:49	WSD
1,2-Dichloropropane	ND	0.018		ND	0.081	0.702	2/4/15 1:49	WSD
cis-1,3-Dichloropropene	ND	0.018		ND	0.080	0.702	2/4/15 1:49	WSD
trans-1,3-Dichloropropene	ND	0.018		ND	0.080	0.702	2/4/15 1:49	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25	0.702	2/4/15 1:49	WSD
1,4-Dioxane	ND	0.35		ND	1.3	0.702	2/4/15 1:49	WSD
Ethanol	1.7	1.4		3.2	2.6	0.702	2/4/15 1:49	WSD
Ethyl Acetate	0.093	0.035		0.33	0.13	0.702	2/4/15 1:49	WSD
Ethylbenzene	ND	0.035		ND	0.15	0.702	2/4/15 1:49	WSD
4-Ethyltoluene	ND	0.035		ND	0.17	0.702	2/4/15 1:49	WSD
Heptane	0.036	0.035		0.15	0.14	0.702	2/4/15 1:49	WSD
Hexachlorobutadiene	ND	0.035		ND	0.37	0.702	2/4/15 1:49	WSD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 1/26/2015
Field Sample #: Ambient-12215
Sample ID: 15A0882-01
Sample Matrix: Ambient Air
Sampled: 1/22/2015 16:15

Sample Description/Location:
Sub Description/Location:
Canister ID: 1401
Canister Size: 3 liter
Flow Controller ID: 3404
Sample Type: 8 hr

Work Order: 15A0882
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.9
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	1.4		ND	4.9	0.702	2/4/15 1:49	WSD
2-Hexanone (MBK)	0.18	0.035		0.75	0.14	0.702	2/4/15 1:49	WSD
Indane	ND	0.15		ND	0.75	1.2	2/16/15 20:16	TPH
Indene	ND	0.16		ND	0.75	1.2	2/16/15 20:16	TPH
Isopropanol	ND	1.4		ND	3.4	0.702	2/4/15 1:49	WSD
Isopropylbenzene (Cumene)	ND	0.15	L-03	ND	0.75	1.2	2/16/15 20:16	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	2/4/15 1:49	WSD
Methylene Chloride	0.54	0.35		1.9	1.2	0.702	2/4/15 1:49	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	2/4/15 1:49	WSD
Naphthalene	ND	0.035		ND	0.18	0.702	2/4/15 1:49	WSD
Propene	ND	1.4		ND	2.4	0.702	2/4/15 1:49	WSD
Styrene	ND	0.035		ND	0.15	0.702	2/4/15 1:49	WSD
1,1,2,2-Tetrachloroethane	ND	0.018		ND	0.12	0.702	2/4/15 1:49	WSD
Tetrachloroethylene	ND	0.018		ND	0.12	0.702	2/4/15 1:49	WSD
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	2/4/15 1:49	WSD
Toluene	0.23	0.035		0.85	0.13	0.702	2/4/15 1:49	WSD
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	2/4/15 1:49	WSD
1,1,1-Trichloroethane	ND	0.018		ND	0.096	0.702	2/4/15 1:49	WSD
1,1,2-Trichloroethane	ND	0.018		ND	0.096	0.702	2/4/15 1:49	WSD
Trichloroethylene	ND	0.018		ND	0.094	0.702	2/4/15 1:49	WSD
Trichlorofluoromethane (Freon 11)	0.20	0.035		1.1	0.20	0.702	2/4/15 1:49	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.070	0.035		0.54	0.27	0.702	2/4/15 1:49	WSD
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	2/4/15 1:49	WSD
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	2/4/15 1:49	WSD
Vinyl Acetate	ND	0.70		ND	2.5	0.702	2/4/15 1:49	WSD
Vinyl Chloride	ND	0.018		ND	0.045	0.702	2/4/15 1:49	WSD
m&p-Xylene	ND	0.070		ND	0.30	0.702	2/4/15 1:49	WSD
o-Xylene	ND	0.035		ND	0.15	0.702	2/4/15 1:49	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.6	70-130	2/4/15 1:49
4-Bromofluorobenzene (2)	79.6	70-130	2/16/15 20:16

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 1/26/2015
Field Sample #: SG-1055
Sample ID: 15A0882-02
Sample Matrix: Soil Gas
Sampled: 1/22/2015 12:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 1358
Canister Size: 3 liter
Flow Controller ID: 4202
Sample Type: 15 min

Work Order: 15A0882
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -2.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA 3C

Analyte	% Results	RL	Flag/Qual	Dilution	Date/Time Analyzed	Analyst
Helium	ND	0.40		1	1/30/15 15:13	WSD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 1/26/2015
Field Sample #: SG-1055
Sample ID: 15A0882-02
Sample Matrix: Soil Gas
Sampled: 1/22/2015 12:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 1358
Canister Size: 3 liter
Flow Controller ID: 4202
Sample Type: 15 min

Work Order: 15A0882
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -2.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	ND	4.0		ND	9.5	2	2/4/15 3:10	WSD
Benzene	21	0.10		67	0.32	2	2/4/15 3:10	WSD
Benzyl chloride	ND	0.10		ND	0.52	2	2/4/15 3:10	WSD
Bromodichloromethane	ND	0.050		ND	0.34	2	2/4/15 3:10	WSD
Bromoform	ND	0.10		ND	1.0	2	2/4/15 3:10	WSD
Bromomethane	ND	0.10		ND	0.39	2	2/4/15 3:10	WSD
1,3-Butadiene	ND	0.10		ND	0.22	2	2/4/15 3:10	WSD
2-Butanone (MEK)	ND	4.0		ND	12	2	2/4/15 3:10	WSD
Carbon Disulfide	1.6	1.0		5.0	3.1	2	2/4/15 3:10	WSD
Carbon Tetrachloride	ND	0.050		ND	0.31	2	2/4/15 3:10	WSD
Chlorobenzene	ND	0.10		ND	0.46	2	2/4/15 3:10	WSD
Chloroethane	ND	0.10		ND	0.26	2	2/4/15 3:10	WSD
Chloroform	ND	0.050		ND	0.24	2	2/4/15 3:10	WSD
Chloromethane	ND	0.20		ND	0.41	2	2/4/15 3:10	WSD
Cyclohexane	42	0.10		140	0.34	2	2/4/15 3:10	WSD
Dibromochloromethane	ND	0.050		ND	0.43	2	2/4/15 3:10	WSD
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38	2	2/4/15 3:10	WSD
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	2/4/15 3:10	WSD
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	2/4/15 3:10	WSD
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	2/4/15 3:10	WSD
Dichlorodifluoromethane (Freon 12)	ND	0.10	L-03, V-05	ND	0.49	2	2/4/15 3:10	WSD
1,1-Dichloroethane	ND	0.050		ND	0.20	2	2/4/15 3:10	WSD
1,2-Dichloroethane	0.17	0.050		0.70	0.20	2	2/4/15 3:10	WSD
1,1-Dichloroethylene	ND	0.050		ND	0.20	2	2/4/15 3:10	WSD
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20	2	2/4/15 3:10	WSD
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20	2	2/4/15 3:10	WSD
1,2-Dichloropropane	ND	0.050		ND	0.23	2	2/4/15 3:10	WSD
cis-1,3-Dichloropropene	ND	0.050		ND	0.23	2	2/4/15 3:10	WSD
trans-1,3-Dichloropropene	ND	0.050		ND	0.23	2	2/4/15 3:10	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	2/4/15 3:10	WSD
1,4-Dioxane	ND	1.0		ND	3.6	2	2/4/15 3:10	WSD
Ethanol	ND	4.0		ND	7.5	2	2/4/15 3:10	WSD
Ethyl Acetate	ND	0.10		ND	0.36	2	2/4/15 3:10	WSD
Ethylbenzene	1.1	0.10		4.7	0.43	2	2/4/15 3:10	WSD
4-Ethyltoluene	1.3	0.10		6.2	0.49	2	2/4/15 3:10	WSD
Heptane	45	0.10		180	0.41	2	2/4/15 3:10	WSD
Hexachlorobutadiene	ND	0.10		ND	1.1	2	2/4/15 3:10	WSD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 1/26/2015
Field Sample #: SG-1055
Sample ID: 15A0882-02
Sample Matrix: Soil Gas
Sampled: 1/22/2015 12:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 1358
Canister Size: 3 liter
Flow Controller ID: 4202
Sample Type: 15 min

Work Order: 15A0882
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -2.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	88	4.0		310	14	2	2/4/15 3:10	WSD
2-Hexanone (MBK)	ND	0.10		ND	0.41	2	2/4/15 3:10	WSD
Indane	ND	0.26		ND	1.2	2	2/16/15 20:56	TPH
Indene	ND	0.26		ND	1.3	2	2/16/15 20:56	TPH
Isopropanol	ND	4.0		ND	9.8	2	2/4/15 3:10	WSD
Isopropylbenzene (Cumene)	0.43	0.25	L-03	2.1	1.2	2	2/16/15 20:56	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	2/4/15 3:10	WSD
Methylene Chloride	ND	1.0		ND	3.5	2	2/4/15 3:10	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	2/4/15 3:10	WSD
Naphthalene	0.26	0.10	L-05	1.4	0.52	2	2/4/15 3:10	WSD
Propene	ND	4.0		ND	6.9	2	2/4/15 3:10	WSD
Styrene	ND	0.10		ND	0.43	2	2/4/15 3:10	WSD
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34	2	2/4/15 3:10	WSD
Tetrachloroethylene	0.20	0.050		1.4	0.34	2	2/4/15 3:10	WSD
Tetrahydrofuran	ND	0.10		ND	0.29	2	2/4/15 3:10	WSD
Toluene	2.0	0.10		7.4	0.38	2	2/4/15 3:10	WSD
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	2/4/15 3:10	WSD
1,1,1-Trichloroethane	ND	0.050		ND	0.27	2	2/4/15 3:10	WSD
1,1,2-Trichloroethane	ND	0.050		ND	0.27	2	2/4/15 3:10	WSD
Trichloroethylene	ND	0.050		ND	0.27	2	2/4/15 3:10	WSD
Trichlorofluoromethane (Freon 11)	ND	0.10		ND	0.56	2	2/4/15 3:10	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	2/4/15 3:10	WSD
1,2,4-Trimethylbenzene	5.0	0.10		24	0.49	2	2/4/15 3:10	WSD
1,3,5-Trimethylbenzene	2.8	0.10		14	0.49	2	2/4/15 3:10	WSD
Vinyl Acetate	ND	2.0		ND	7.0	2	2/4/15 3:10	WSD
Vinyl Chloride	ND	0.050		ND	0.13	2	2/4/15 3:10	WSD
m&p-Xylene	8.6	0.20		38	0.87	2	2/4/15 3:10	WSD
o-Xylene	3.4	0.10		15	0.43	2	2/4/15 3:10	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	107	70-130	2/4/15 3:10
4-Bromofluorobenzene (2)	98.0	70-130	2/16/15 20:56

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: TO-15 Prep-EPA 3C

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15A0882-02 [SG-1055]	B114525	1.5	1	N/A	1000	0.5	0.75	01/30/15

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15A0882-01 [Ambient-12215]	B114808	1.5	1	N/A	1000	400	855	02/03/15
15A0882-02 [SG-1055]	B114808	1.5	1	N/A	1000	400	300	02/03/15

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15A0882-01RE1 [Ambient-12215]	B115418	3	1	N/A	1000	400	1000	02/16/15
15A0882-02RE1 [SG-1055]	B115418	2	1	N/A	1000	400	400	02/16/15

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Miscellaneous Air Analyses - Quality Control

Analyte	% Results	% RL	ug/m3 Results	ug/m3 RL	Spike Level %	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B114525 - TO-15 Prep											
Blank (B114525-BLK1)					Prepared & Analyzed: 01/30/15						
Helium	ND	0.40									
LCS (B114525-BS1)					Prepared & Analyzed: 01/30/15						
Helium	0.940				1.00		94.0	70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B114808 - TO-15 Prep											
Blank (B114808-BLK1)					Prepared & Analyzed: 02/03/15						
Acetone	ND	1.0									
Benzene	ND	0.025									
Benzyl chloride	ND	0.025									
Bromodichloromethane	ND	0.012									
Bromoform	ND	0.025									
Bromomethane	ND	0.025									
1,3-Butadiene	ND	0.025									
2-Butanone (MEK)	ND	1.0									
Carbon Disulfide	ND	0.25									
Carbon Tetrachloride	ND	0.012									
Chlorobenzene	ND	0.025									
Chloroethane	ND	0.025									
Chloroform	ND	0.012									
Chloromethane	ND	0.050									
Cyclohexane	ND	0.025									
Dibromochloromethane	ND	0.012									
1,2-Dibromoethane (EDB)	ND	0.012									
1,2-Dichlorobenzene	ND	0.025									
1,3-Dichlorobenzene	ND	0.025									
1,4-Dichlorobenzene	ND	0.025									
Dichlorodifluoromethane (Freon 12)	ND	0.025									L-03, V-05
1,1-Dichloroethane	ND	0.012									
1,2-Dichloroethane	ND	0.012									
1,1-Dichloroethylene	ND	0.012									
cis-1,2-Dichloroethylene	ND	0.012									
trans-1,2-Dichloroethylene	ND	0.012									
1,2-Dichloropropane	ND	0.012									
cis-1,3-Dichloropropene	ND	0.012									
trans-1,3-Dichloropropene	ND	0.012									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.025									
1,4-Dioxane	ND	0.25									
Ethanol	ND	1.0									
Ethyl Acetate	ND	0.025									
Ethylbenzene	ND	0.025									
4-Ethyltoluene	ND	0.025									
Heptane	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Hexane	ND	1.0									
2-Hexanone (MBK)	ND	0.025									
Isopropanol	ND	1.0									
Methyl tert-Butyl Ether (MTBE)	ND	0.025									
Methylene Chloride	ND	0.25									
4-Methyl-2-pentanone (MIBK)	ND	0.025									
Naphthalene	ND	0.025									
Propene	ND	1.0									
Styrene	ND	0.025									

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B114808 - TO-15 Prep												
Blank (B114808-BLK1)					Prepared & Analyzed: 02/03/15							
1,1,2,2-Tetrachloroethane	ND	0.012										
Tetrachloroethylene	ND	0.012										
Tetrahydrofuran	ND	0.025										
Toluene	ND	0.025										
1,2,4-Trichlorobenzene	ND	0.025										
1,1,1-Trichloroethane	ND	0.012										
1,1,2-Trichloroethane	ND	0.012										
Trichloroethylene	ND	0.012										
Trichlorofluoromethane (Freon 11)	ND	0.025										
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.025										
1,2,4-Trimethylbenzene	ND	0.025										
1,3,5-Trimethylbenzene	ND	0.025										
Vinyl Acetate	ND	0.50										
Vinyl Chloride	ND	0.012										
m&p-Xylene	ND	0.050										
o-Xylene	ND	0.025										
Surrogate: 4-Bromofluorobenzene (1)	*7.54*				*8.00*		*94.2*		*70-130*			
LCS (B114808-BS1)					Prepared & Analyzed: 02/03/15							
Acetone	4.74				5.00		94.8		70-130			
Benzene	4.82				5.00		96.4		70-130			
Benzyl chloride	6.35				5.00		127		70-130			
Bromodichloromethane	4.38				5.00		87.5		70-130			
Bromoform	5.02				5.00		100		70-130			
Bromomethane	4.64				5.00		92.7		70-130			
1,3-Butadiene	4.60				5.00		92.1		70-130			
2-Butanone (MEK)	4.49				5.00		89.8		70-130			
Carbon Disulfide	4.65				5.00		93.0		70-130			
Carbon Tetrachloride	4.26				5.00		85.2		70-130			
Chlorobenzene	3.57				5.00		71.3		70-130			
Chloroethane	4.81				5.00		96.2		70-130			
Chloroform	4.31				5.00		86.1		70-130			
Chloromethane	4.55				5.00		91.0		70-130			
Cyclohexane	4.69				5.00		93.8		70-130			
Dibromochloromethane	4.74				5.00		94.7		70-130			
1,2-Dibromoethane (EDB)	4.95				5.00		99.1		70-130			
1,2-Dichlorobenzene	5.63				5.00		113		70-130			
1,3-Dichlorobenzene	5.54				5.00		111		70-130			
1,4-Dichlorobenzene	5.48				5.00		110		70-130			
Dichlorodifluoromethane (Freon 12)	2.96				5.00		**59.2**	*	70-130			L-03, V-05
1,1-Dichloroethane	4.33				5.00		86.6		70-130			
1,2-Dichloroethane	4.13				5.00		82.6		70-130			
1,1-Dichloroethylene	4.39				5.00		87.7		70-130			
cis-1,2-Dichloroethylene	4.25				5.00		84.9		70-130			
trans-1,2-Dichloroethylene	4.31				5.00		86.3		70-130			
1,2-Dichloropropane	4.40				5.00		87.9		70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B114808 - TO-15 Prep												
LCS (B114808-BS1)					Prepared & Analyzed: 02/03/15							
cis-1,3-Dichloropropene	4.66				5.00		93.2		70-130			
trans-1,3-Dichloropropene	4.63				5.00		92.7		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.22				5.00		84.4		70-130			
1,4-Dioxane	5.12				5.00		102		70-130			
Ethanol	4.43				5.00		88.6		70-130			
Ethyl Acetate	5.40				5.00		108		70-130			
Ethylbenzene	5.17				5.00		103		70-130			
4-Ethyltoluene	5.55				5.00		111		70-130			
Heptane	5.29				5.00		106		70-130			
Hexachlorobutadiene	6.25				5.00		125		70-130			
Hexane	4.80				5.00		96.1		70-130			
2-Hexanone (MBK)	5.22				5.00		104		70-130			
Isopropanol	4.49				5.00		89.8		70-130			
Methyl tert-Butyl Ether (MTBE)	4.74				5.00		94.9		70-130			
Methylene Chloride	4.52				5.00		90.4		70-130			
4-Methyl-2-pentanone (MIBK)	5.26				5.00		105		70-130			
Naphthalene	7.25				5.00		**145**	*	70-130			L-05
Propene	4.50				5.00		89.9		70-130			
Styrene	5.25				5.00		105		70-130			
1,1,2,2-Tetrachloroethane	5.38				5.00		108		70-130			
Tetrachloroethylene	4.62				5.00		92.5		70-130			
Tetrahydrofuran	4.83				5.00		96.7		70-130			
Toluene	4.94				5.00		98.7		70-130			
1,2,4-Trichlorobenzene	6.78				5.00		**136**	*	70-130			L-01
1,1,1-Trichloroethane	4.38				5.00		87.5		70-130			
1,1,2-Trichloroethane	4.81				5.00		96.3		70-130			
Trichloroethylene	4.48				5.00		89.7		70-130			
Trichlorofluoromethane (Freon 11)	4.40				5.00		88.1		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.66				5.00		93.1		70-130			
1,2,4-Trimethylbenzene	5.80				5.00		116		70-130			
1,3,5-Trimethylbenzene	5.63				5.00		113		70-130			
Vinyl Acetate	4.56				5.00		91.2		70-130			
Vinyl Chloride	4.46				5.00		89.3		70-130			
m&p-Xylene	10.2				10.0		102		70-130			
o-Xylene	5.33				5.00		107		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*7.55*				*8.00*		*94.4*		*70-130*			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B115418 - TO-15 Prep												
Blank (B115418-BLK1)					Prepared & Analyzed: 02/16/15							
Indane	ND	0.052										
Indene	ND	0.053										
Isopropylbenzene (Cumene)	ND	0.051										L-03
Surrogate: 4-Bromofluorobenzene (2)	*6.40*				*8.00*		*80.0*		*70-130*			
LCS (B115418-BS1)					Prepared & Analyzed: 02/16/15							
Indane	0.917				1.29		71.1		70-130			
Indene	1.47				1.32		112		70-130			
Isopropylbenzene (Cumene)	0.828				1.27		**65.2**	*	70-130			L-03
Surrogate: 4-Bromofluorobenzene (2)	*6.79*				*8.00*		*84.8*		*70-130*			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.

L-01	Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY,ME
Benzene	AIHA,FL,NJ,NY,VA,ME
Benzyl chloride	AIHA,FL,NJ,NY,VA,ME
Bromodichloromethane	AIHA,NJ,NY,VA,ME
Bromoform	AIHA,NJ,NY,VA,ME
Bromomethane	AIHA,FL,NJ,NY,ME
1,3-Butadiene	AIHA,NJ,NY,VA,ME
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA,ME
Carbon Disulfide	AIHA,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloroform	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
Cyclohexane	AIHA,NJ,NY,VA,ME
Dibromochloromethane	AIHA,NY,ME
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA,ME
trans-1,3-Dichloropropene	AIHA,NY,ME
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,VA,ME
1,4-Dioxane	AIHA,NJ,NY,VA,ME
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA,ME
Hexachlorobutadiene	AIHA,NJ,NY,VA,ME
Hexane	AIHA,FL,NJ,NY,VA,ME
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME
Isopropylbenzene (Cumene)	AIHA,NJ,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME
Naphthalene	NY,ME
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA,ME

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA,ME
Tetrachloroethylene	AIHA,FL,NJ,NY,VA,ME
Tetrahydrofuran	AIHA
Toluene	AIHA,FL,NJ,NY,VA,ME
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA,ME
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
Trichloroethylene	AIHA,FL,NJ,NY,VA,ME
Trichlorofluoromethane (Freon 11)	AIHA,NY,ME
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
Vinyl Acetate	AIHA,FL,NJ,NY,VA,ME
Vinyl Chloride	AIHA,FL,NJ,NY,VA,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2015
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2015
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2015
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015

con-test ANALYTICAL LABORATORY
www.contestlabs.com

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY RECORD

15A0882

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

DOC#284
Rev. Feb 2014

Company Name: GZA
Address: 530 BROADWAY
PROVIDENCE, RHODE ISLAND
Attention: MEGHILPATRICK + SOPHIA NARKIEWICZ
Project Location: PAWTUCKET, RHODE ISLAND
Sampled By: SOPHIA NARKIEWICZ

Telephone: 401-421-4140
Project # 43654
Client PO #

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☐WEBSITE CLIENT
Fax #: mkipatrick@gza.com
Email: sophia.narkiewicz@gza.com
Format: ☒EXCEL ☒PDF ☐GIS KEY ☐OTHER___

Proposal Provided? (For Billing purposes)
☐yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS Total Minutes Sampled	Flow Rate M^3/Min. or L/Min.	Volume Liters or M^3	Matrix Code*	ANALYSIS REQUESTED TO-15	T-3C Helium			"Hg Initial pressure	"Hg Final pressure	Lab Receipt pressure	Please fill out completely, sign, date and retain the yellow copy for your record. Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply. For summa canister and flow controller information please refer to Con-Test's Air Media Agreement. Summa Canister ID	Flow Controller ID
1	AMBIENT-122115	S		1/22/15 9:01	1/22/15 16:15				AMB	X				-29	-7	5	1401	3404
2	SG-1055	S		1/23/15 12:10	1/23/15 12:25				SG	X	X			-30	-4	22	1358	4202
	DID NOT USE - RETURN ONLY																1368	4203

Laboratory Comments:

CLIENT COMMENTS:
Project Specific TO-15 LIST

Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround **
☒ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

Special Requirements
Regulations: MADEP, NJDEP & CTDEEP
Data Enhancement/RCP? ☐Y ☒N
Enhanced Data Package ☐Y ☒N
(Surchage Applies)
Required Detection Limits: NJDEP, MADEP
Other: CTDEEP

***Matrix Code:**
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other___

****Media Codes:**
S=summa can
T=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other___

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS CORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. NELAC & AIHA-LAP, LLC Accredited/WBE/DBE Certified

Table of Contents

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The coolers'/boxes' custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	NA	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) Samples are received within Holding Time.	T	
10) Sample containers have legible labels.	T	
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T	
12) Sample collection date/times are provided.	T	
13) Appropriate sample/media containers are used.	T	
14) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
15) Trip blanks provided if applicable.	NA	

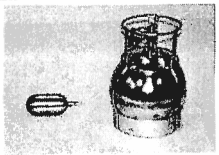
Who notified of False statements?

Log-In Technician Initials: PB

Date/Time:

Date/Time: 1/26/15 9:00

Doc #278 Rev. 5 October 2014



www.contestlabs.com

con-test® ANALYTICAL LABORATORY

39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

AIR Only Receipt Checklist

CLIENT NAME: GZA RECEIVED BY: PB DATE: 1/26/15

1) Was the chain(s) of custody relinquished and signed? (Yes) No

2) Does the chain agree with the samples? (Yes) No
If not, explain:

3) Are all the samples in good condition? (Yes) No
If not, explain:

4) Are there any samples "On Hold"? Yes (No) Stored where:

5) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)
Who was notified _____ Date _____ Time _____

6) Location where samples are stored: Air Lab

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? None

Containers received at Con-Test

		# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)		3	3 Lit
Tedlar Bags			
TO-17 Tubes			
Regulators		3	2 15min 1 8hr
Restrictors			
Hg/Hopcalite Tube (NIOSH 6009)			
(TO-4A/ TO-10A/TO-13) PUFs			
PCB Florisil Tubes (NIOSH 5503)			
Air cassette			
PM 2.5/PM 10			
TO-11A Cartridges			
Other			

Unused Summas/PUF Media: 1368

Unused Regulators:

1) Was all media (used & unused) checked into the WASP?

2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments: 1401 1358 15 min { 4202 4203 8hr 3044

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

May 12, 2015

Margaret Kilpatrick
GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909

Project Location: Tidewater
Client Job Number:
Project Number: 43654
Laboratory Work Order Number: 15D1506

Enclosed are results of analyses for samples received by the laboratory on April 29, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa A. Worthington
Project Manager

Table of Contents

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909
ATTN: Margaret Kilpatrick

REPORT DATE: 5/12/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 43654

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15D1506

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Tidewater

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Ambient-42815	15D1506-01	Ambient Air		EPA TO-15	
SG-1055	15D1506-02	Ambient Air		EPA 3C	
				EPA TO-15	
Unused 1402	15D1506-03	Air		-	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dichloro-1,1,2,2-tetrafluoroeth:
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

1,3-Butadiene
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

Bromomethane
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

Chloroethane
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

Chloromethane
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

Indane
15D1506-01RE1[Ambient-42815], 15D1506-02RE1[SG-1055], B121285-BLK1, B121285-BS1

Isopropylbenzene (Cumene)
15D1506-01RE1[Ambient-42815], 15D1506-02RE1[SG-1055], B121285-BLK1, B121285-BS1

Vinyl Chloride
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dichloro-1,1,2,2-tetrafluoroeth:
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

Bromomethane
15D1506-01[Ambient-42815], 15D1506-02[SG-1055], B121209-BLK1, B121209-BS1

Isopropylbenzene (Cumene)
15D1506-01RE1[Ambient-42815], 15D1506-02RE1[SG-1055], B121285-BLK1, B121285-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Tidewater
Date Received: 4/29/2015
Field Sample #: Ambient-42815
Sample ID: 15D1506-01
Sample Matrix: Ambient Air
Sampled: 4/28/2015 16:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1364
Canister Size: 3 liter
Flow Controller ID: 3303
Sample Type: 8 hr

Work Order: 15D1506
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -6
Receipt Vacuum(in Hg): -6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Acetone	6.1	1.4		15	3.3	0.702	5/6/15 0:25	TPH
Benzene	0.095	0.035		0.30	0.11	0.702	5/6/15 0:25	TPH
Benzyl chloride	ND	0.035		ND	0.18	0.702	5/6/15 0:25	TPH
Bromodichloromethane	ND	0.035		ND	0.24	0.702	5/6/15 0:25	TPH
Bromoform	ND	0.035		ND	0.36	0.702	5/6/15 0:25	TPH
Bromomethane	ND	0.035	L-03, V-05	ND	0.14	0.702	5/6/15 0:25	TPH
1,3-Butadiene	ND	0.035	L-03	ND	0.078	0.702	5/6/15 0:25	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1	0.702	5/6/15 0:25	TPH
Carbon Disulfide	ND	0.35		ND	1.1	0.702	5/6/15 0:25	TPH
Carbon Tetrachloride	0.062	0.035		0.39	0.22	0.702	5/6/15 0:25	TPH
Chlorobenzene	ND	0.035		ND	0.16	0.702	5/6/15 0:25	TPH
Chloroethane	ND	0.035	L-03	ND	0.093	0.702	5/6/15 0:25	TPH
Chloroform	ND	0.035		ND	0.17	0.702	5/6/15 0:25	TPH
Chloromethane	0.39	0.070	L-03	0.81	0.14	0.702	5/6/15 0:25	TPH
Cyclohexane	ND	0.035		ND	0.12	0.702	5/6/15 0:25	TPH
Dibromochloromethane	ND	0.035		ND	0.30	0.702	5/6/15 0:25	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27	0.702	5/6/15 0:25	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21	0.702	5/6/15 0:25	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21	0.702	5/6/15 0:25	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21	0.702	5/6/15 0:25	TPH
Dichlorodifluoromethane (Freon 12)	0.25	0.035		1.2	0.17	0.702	5/6/15 0:25	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14	0.702	5/6/15 0:25	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14	0.702	5/6/15 0:25	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14	0.702	5/6/15 0:25	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14	0.702	5/6/15 0:25	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14	0.702	5/6/15 0:25	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16	0.702	5/6/15 0:25	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16	0.702	5/6/15 0:25	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16	0.702	5/6/15 0:25	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035	L-03, V-05	ND	0.25	0.702	5/6/15 0:25	TPH
1,4-Dioxane	ND	0.35		ND	1.3	0.702	5/6/15 0:25	TPH
Ethanol	1.7	1.4		3.1	2.6	0.702	5/6/15 0:25	TPH
Ethyl Acetate	0.19	0.035		0.68	0.13	0.702	5/6/15 0:25	TPH
Ethylbenzene	ND	0.035		ND	0.15	0.702	5/6/15 0:25	TPH
4-Ethyltoluene	ND	0.035		ND	0.17	0.702	5/6/15 0:25	TPH
Heptane	0.036	0.035		0.15	0.14	0.702	5/6/15 0:25	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37	0.702	5/6/15 0:25	TPH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Tidewater
Date Received: 4/29/2015
Field Sample #: Ambient-42815
Sample ID: 15D1506-01
Sample Matrix: Ambient Air
Sampled: 4/28/2015 16:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1364
Canister Size: 3 liter
Flow Controller ID: 3303
Sample Type: 8 hr

Work Order: 15D1506
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -6
Receipt Vacuum(in Hg): -6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	1.4		ND	4.9	0.702	5/6/15 0:25	TPH
2-Hexanone (MBK)	0.088	0.035		0.36	0.14	0.702	5/6/15 0:25	TPH
Indane	0.38	0.26	L-03	1.8	1.2	2	5/7/15 16:11	TPH
Indene	ND	0.26		ND	1.3	2	5/7/15 16:11	TPH
Isopropanol	ND	1.4		ND	3.4	0.702	5/6/15 0:25	TPH
Isopropylbenzene (Cumene)	1.2	0.25	V-05, L-03	5.8	1.2	2	5/7/15 16:11	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	5/6/15 0:25	TPH
Methylene Chloride	0.49	0.35		1.7	1.2	0.702	5/6/15 0:25	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	5/6/15 0:25	TPH
Naphthalene	ND	0.035		ND	0.18	0.702	5/6/15 0:25	TPH
Propene	ND	1.4		ND	2.4	0.702	5/6/15 0:25	TPH
Styrene	ND	0.035		ND	0.15	0.702	5/6/15 0:25	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	5/6/15 0:25	TPH
Tetrachloroethylene	0.072	0.035		0.49	0.24	0.702	5/6/15 0:25	TPH
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	5/6/15 0:25	TPH
Toluene	0.12	0.035		0.46	0.13	0.702	5/6/15 0:25	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	5/6/15 0:25	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	5/6/15 0:25	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	5/6/15 0:25	TPH
Trichloroethylene	ND	0.035		ND	0.19	0.702	5/6/15 0:25	TPH
Trichlorofluoromethane (Freon 11)	0.19	0.14		1.0	0.79	0.702	5/6/15 0:25	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	5/6/15 0:25	TPH
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	5/6/15 0:25	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	5/6/15 0:25	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	5/6/15 0:25	TPH
Vinyl Chloride	ND	0.035	L-03	ND	0.090	0.702	5/6/15 0:25	TPH
m&p-Xylene	ND	0.070		ND	0.30	0.702	5/6/15 0:25	TPH
o-Xylene	ND	0.035		ND	0.15	0.702	5/6/15 0:25	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.7	70-130	5/6/15 0:25
4-Bromofluorobenzene (2)	115	70-130	5/7/15 16:11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Tidewater
Date Received: 4/29/2015
Field Sample #: SG-1055
Sample ID: 15D1506-02
Sample Matrix: Ambient Air
Sampled: 4/28/2015 09:37

Sample Description/Location:
Sub Description/Location:
Canister ID: 1374
Canister Size: 3 liter
Flow Controller ID: 4038
Sample Type: 15 min

Work Order: 15D1506
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -1.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA 3C

Analyte	Results	% RL	Flag/Qual	Dilution	Date/Time Analyzed	Analyst
Helium	ND	0.40		1	5/11/15 21:39	TPH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Tidewater
Date Received: 4/29/2015
Field Sample #: SG-1055
Sample ID: 15D1506-02
Sample Matrix: Ambient Air
Sampled: 4/28/2015 09:37

Sample Description/Location:
Sub Description/Location:
Canister ID: 1374
Canister Size: 3 liter
Flow Controller ID: 4038
Sample Type: 15 min

Work Order: 15D1506
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -1.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	3.2	1.4		7.6	3.3	0.702	5/6/15 1:04	TPH
Benzene	14	0.035		43	0.11	0.702	5/6/15 1:04	TPH
Benzyl chloride	ND	0.035		ND	0.18	0.702	5/6/15 1:04	TPH
Bromodichloromethane	ND	0.035		ND	0.24	0.702	5/6/15 1:04	TPH
Bromoform	ND	0.035		ND	0.36	0.702	5/6/15 1:04	TPH
Bromomethane	ND	0.035	L-03, V-05	ND	0.14	0.702	5/6/15 1:04	TPH
1,3-Butadiene	ND	0.035	L-03	ND	0.078	0.702	5/6/15 1:04	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1	0.702	5/6/15 1:04	TPH
Carbon Disulfide	0.43	0.35		1.3	1.1	0.702	5/6/15 1:04	TPH
Carbon Tetrachloride	ND	0.035		ND	0.22	0.702	5/6/15 1:04	TPH
Chlorobenzene	ND	0.035		ND	0.16	0.702	5/6/15 1:04	TPH
Chloroethane	ND	0.035	L-03	ND	0.093	0.702	5/6/15 1:04	TPH
Chloroform	ND	0.035		ND	0.17	0.702	5/6/15 1:04	TPH
Chloromethane	ND	0.070	L-03	ND	0.14	0.702	5/6/15 1:04	TPH
Cyclohexane	1.9	0.035		6.4	0.12	0.702	5/6/15 1:04	TPH
Dibromochloromethane	ND	0.035		ND	0.30	0.702	5/6/15 1:04	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27	0.702	5/6/15 1:04	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21	0.702	5/6/15 1:04	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21	0.702	5/6/15 1:04	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21	0.702	5/6/15 1:04	TPH
Dichlorodifluoromethane (Freon 12)	ND	0.035		ND	0.17	0.702	5/6/15 1:04	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16	0.702	5/6/15 1:04	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16	0.702	5/6/15 1:04	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16	0.702	5/6/15 1:04	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035	L-03, V-05	ND	0.25	0.702	5/6/15 1:04	TPH
1,4-Dioxane	ND	0.35		ND	1.3	0.702	5/6/15 1:04	TPH
Ethanol	ND	1.4		ND	2.6	0.702	5/6/15 1:04	TPH
Ethyl Acetate	ND	0.035		ND	0.13	0.702	5/6/15 1:04	TPH
Ethylbenzene	0.14	0.035		0.62	0.15	0.702	5/6/15 1:04	TPH
4-Ethyltoluene	0.30	0.035		1.5	0.17	0.702	5/6/15 1:04	TPH
Heptane	1.5	0.035		6.2	0.14	0.702	5/6/15 1:04	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37	0.702	5/6/15 1:04	TPH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Tidewater
Date Received: 4/29/2015
Field Sample #: SG-1055
Sample ID: 15D1506-02
Sample Matrix: Ambient Air
Sampled: 4/28/2015 09:37

Sample Description/Location:
Sub Description/Location:
Canister ID: 1374
Canister Size: 3 liter
Flow Controller ID: 4038
Sample Type: 15 min

Work Order: 15D1506
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -1.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	2.5	1.4		8.9	4.9	0.702	5/6/15 1:04	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
Indane	ND	0.091	L-03	ND	0.44	0.702	5/7/15 15:32	TPH
Indene	ND	0.093		ND	0.44	0.702	5/7/15 15:32	TPH
Isopropanol	ND	1.4		ND	3.4	0.702	5/6/15 1:04	TPH
Isopropylbenzene (Cumene)	ND	0.089	V-05, L-03	ND	0.44	0.702	5/7/15 15:32	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	5/6/15 1:04	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	5/6/15 1:04	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	5/6/15 1:04	TPH
Naphthalene	0.037	0.035		0.19	0.18	0.702	5/6/15 1:04	TPH
Propene	ND	1.4		ND	2.4	0.702	5/6/15 1:04	TPH
Styrene	ND	0.035		ND	0.15	0.702	5/6/15 1:04	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	5/6/15 1:04	TPH
Tetrachloroethylene	ND	0.035		ND	0.24	0.702	5/6/15 1:04	TPH
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	5/6/15 1:04	TPH
Toluene	0.25	0.035		0.94	0.13	0.702	5/6/15 1:04	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	5/6/15 1:04	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	5/6/15 1:04	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	5/6/15 1:04	TPH
Trichloroethylene	ND	0.035		ND	0.19	0.702	5/6/15 1:04	TPH
Trichlorofluoromethane (Freon 11)	ND	0.14		ND	0.79	0.702	5/6/15 1:04	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	5/6/15 1:04	TPH
1,2,4-Trimethylbenzene	1.1	0.035		5.4	0.17	0.702	5/6/15 1:04	TPH
1,3,5-Trimethylbenzene	0.59	0.035		2.9	0.17	0.702	5/6/15 1:04	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	5/6/15 1:04	TPH
Vinyl Chloride	ND	0.035	L-03	ND	0.090	0.702	5/6/15 1:04	TPH
m&p-Xylene	2.0	0.070		8.6	0.30	0.702	5/6/15 1:04	TPH
o-Xylene	0.86	0.035		3.8	0.15	0.702	5/6/15 1:04	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.7	70-130	5/6/15 1:04
4-Bromofluorobenzene (2)	95.8	70-130	5/7/15 15:32

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: TO-15 Prep-EPA 3C

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15D1506-02 [SG-1055]	B121472	1	1	N/A	1000	0.5	0.5	05/11/15

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15D1506-01 [Ambient-42815]	B121209	1.5	1	N/A	1000	400	855	05/05/15
15D1506-02 [SG-1055]	B121209	1.5	1	N/A	1000	400	855	05/05/15

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15D1506-01RE1 [Ambient-42815]	B121285	1.5	1	N/A	1000	400	300	05/06/15
15D1506-02RE1 [SG-1055]	B121285	1.5	1	N/A	1000	400	855	05/06/15

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Miscellaneous Air Analyses - Quality Control

Analyte	% Results	% RL	ug/m3 Results	ug/m3 RL	Spike Level %	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B121472 - TO-15 Prep											
Blank (B121472-BLK1)					Prepared & Analyzed: 05/11/15						
Helium	ND	0.40									
LCS (B121472-BS1)					Prepared & Analyzed: 05/11/15						
Helium	0.810				1.00		81.0	70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B121209 - TO-15 Prep											
Blank (B121209-BLK1)					Prepared & Analyzed: 05/05/15						
Acetone	ND	1.4									
Benzene	ND	0.035									
Benzyl chloride	ND	0.035									
Bromodichloromethane	ND	0.035									
Bromoform	ND	0.035									
Bromomethane	ND	0.035									L-03, V-05
1,3-Butadiene	ND	0.035									L-03
2-Butanone (MEK)	ND	1.4									
Carbon Disulfide	ND	0.35									
Carbon Tetrachloride	ND	0.035									
Chlorobenzene	ND	0.035									
Chloroethane	ND	0.035									L-03
Chloroform	ND	0.035									
Chloromethane	ND	0.070									L-03
Cyclohexane	ND	0.035									
Dibromochloromethane	ND	0.035									
1,2-Dibromoethane (EDB)	ND	0.035									
1,2-Dichlorobenzene	ND	0.035									
1,3-Dichlorobenzene	ND	0.035									
1,4-Dichlorobenzene	ND	0.035									
Dichlorodifluoromethane (Freon 12)	ND	0.035									
1,1-Dichloroethane	ND	0.035									
1,2-Dichloroethane	ND	0.035									
1,1-Dichloroethylene	ND	0.035									
cis-1,2-Dichloroethylene	ND	0.035									
trans-1,2-Dichloroethylene	ND	0.035									
1,2-Dichloropropane	ND	0.035									
cis-1,3-Dichloropropene	ND	0.035									
trans-1,3-Dichloropropene	ND	0.035									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035									L-03, V-05
1,4-Dioxane	ND	0.35									
Ethanol	ND	1.4									
Ethyl Acetate	ND	0.035									
Ethylbenzene	ND	0.035									
4-Ethyltoluene	ND	0.035									
Heptane	ND	0.035									
Hexachlorobutadiene	ND	0.035									
Hexane	ND	1.4									
2-Hexanone (MBK)	ND	0.035									
Isopropanol	ND	1.4									
Methyl tert-Butyl Ether (MTBE)	ND	0.035									
Methylene Chloride	ND	0.35									
4-Methyl-2-pentanone (MIBK)	ND	0.035									
Naphthalene	ND	0.035									
Propene	ND	1.4									
Styrene	ND	0.035									

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B121209 - TO-15 Prep												
Blank (B121209-BLK1)					Prepared & Analyzed: 05/05/15							
1,1,2,2-Tetrachloroethane	ND	0.035										
Tetrachloroethylene	ND	0.035										
Tetrahydrofuran	ND	0.035										
Toluene	ND	0.035										
1,2,4-Trichlorobenzene	ND	0.035										
1,1,1-Trichloroethane	ND	0.035										
1,1,2-Trichloroethane	ND	0.035										
Trichloroethylene	ND	0.035										
Trichlorofluoromethane (Freon 11)	ND	0.14										
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14										
1,2,4-Trimethylbenzene	ND	0.035										
1,3,5-Trimethylbenzene	ND	0.035										
Vinyl Acetate	ND	0.70										
Vinyl Chloride	ND	0.035										L-03
m&p-Xylene	ND	0.070										
o-Xylene	ND	0.035										
Surrogate: 4-Bromofluorobenzene (1)	*7.50*				*8.00*		*93.7*		*70-130*			
LCS (B121209-BS1)					Prepared & Analyzed: 05/05/15							
Acetone	5.34				5.00		107		70-130			
Benzene	3.58				5.00		71.6		70-130			
Benzyl chloride	4.74				5.00		94.8		70-130			
Bromodichloromethane	4.29				5.00		85.8		70-130			
Bromoform	4.36				5.00		87.1		70-130			
Bromomethane	2.64				5.00		**52.7**	*	70-130			L-03, V-05
1,3-Butadiene	3.20				5.00		**64.0**	*	70-130			L-03
2-Butanone (MEK)	3.69				5.00		73.9		70-130			
Carbon Disulfide	3.68				5.00		73.5		70-130			
Carbon Tetrachloride	4.27				5.00		85.3		70-130			
Chlorobenzene	3.97				5.00		79.4		70-130			
Chloroethane	3.26				5.00		**65.2**	*	70-130			L-03
Chloroform	3.86				5.00		77.1		70-130			
Chloromethane	3.31				5.00		**66.1**	*	70-130			L-03
Cyclohexane	3.76				5.00		75.1		70-130			
Dibromochloromethane	4.25				5.00		85.1		70-130			
1,2-Dibromoethane (EDB)	4.16				5.00		83.3		70-130			
1,2-Dichlorobenzene	4.91				5.00		98.2		70-130			
1,3-Dichlorobenzene	4.67				5.00		93.3		70-130			
1,4-Dichlorobenzene	4.62				5.00		92.4		70-130			
Dichlorodifluoromethane (Freon 12)	4.14				5.00		82.7		70-130			
1,1-Dichloroethane	3.85				5.00		77.0		70-130			
1,2-Dichloroethane	4.04				5.00		80.7		70-130			
1,1-Dichloroethylene	4.02				5.00		80.4		70-130			
cis-1,2-Dichloroethylene	3.93				5.00		78.7		70-130			
trans-1,2-Dichloroethylene	3.75				5.00		75.0		70-130			
1,2-Dichloropropane	4.15				5.00		83.0		70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B121209 - TO-15 Prep												
LCS (B121209-BS1)					Prepared & Analyzed: 05/05/15							
cis-1,3-Dichloropropene	4.36				5.00		87.1		70-130			
trans-1,3-Dichloropropene	4.14				5.00		82.8		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	3.04				5.00		**60.7**	*	70-130			L-03, V-05
1,4-Dioxane	4.16				5.00		83.2		70-130			
Ethanol	4.73				5.00		94.7		70-130			
Ethyl Acetate	3.71				5.00		74.2		70-130			
Ethylbenzene	4.16				5.00		83.1		70-130			
4-Ethyltoluene	4.39				5.00		87.8		70-130			
Heptane	4.03				5.00		80.6		70-130			
Hexachlorobutadiene	4.98				5.00		99.6		70-130			
Hexane	4.33				5.00		86.6		70-130			
2-Hexanone (MBK)	3.99				5.00		79.8		70-130			
Isopropanol	5.33				5.00		107		70-130			
Methyl tert-Butyl Ether (MTBE)	3.72				5.00		74.4		70-130			
Methylene Chloride	3.80				5.00		76.0		70-130			
4-Methyl-2-pentanone (MIBK)	4.17				5.00		83.5		70-130			
Naphthalene	4.10				5.00		82.0		70-130			
Propene	3.94				5.00		78.8		70-130			
Styrene	4.02				5.00		80.5		70-130			
1,1,2,2-Tetrachloroethane	4.70				5.00		94.1		70-130			
Tetrachloroethylene	3.76				5.00		75.1		70-130			
Tetrahydrofuran	3.90				5.00		78.0		70-130			
Toluene	3.96				5.00		79.1		70-130			
1,2,4-Trichlorobenzene	5.12				5.00		102		70-130			
1,1,1-Trichloroethane	3.97				5.00		79.5		70-130			
1,1,2-Trichloroethane	4.15				5.00		83.1		70-130			
Trichloroethylene	3.90				5.00		78.1		70-130			
Trichlorofluoromethane (Freon 11)	3.86				5.00		77.2		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.04				5.00		80.8		70-130			
1,2,4-Trimethylbenzene	4.69				5.00		93.9		70-130			
1,3,5-Trimethylbenzene	4.54				5.00		90.7		70-130			
Vinyl Acetate	4.07				5.00		81.3		70-130			
Vinyl Chloride	3.17				5.00		**63.3**	*	70-130			L-03
m&p-Xylene	9.04				10.0		90.4		70-130			
o-Xylene	4.20				5.00		84.0		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.46*				*8.00*		*106*		*70-130*			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B121285 - TO-15 Prep												
Blank (B121285-BLK1)					Prepared & Analyzed: 05/06/15							
Indane	ND	0.064										L-03
Indene	ND	0.066										
Isopropylbenzene (Cumene)	ND	0.064										L-03, V-05
Surrogate: 4-Bromofluorobenzene (2)	*6.29*				*8.00*		*78.6*		*70-130*			
LCS (B121285-BS1)					Prepared & Analyzed: 05/06/15							
Indane	0.898				1.29		**69.6**	*	70-130			L-03
Indene	1.45				1.32		110		70-130			
Isopropylbenzene (Cumene)	0.851				1.27		**67.0**	*	70-130			L-03, V-05
Surrogate: 4-Bromofluorobenzene (2)	*6.50*				*8.00*		*81.3*		*70-130*			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	NY,ME
Benzene	AIHA,FL,NJ,NY,VA,ME
Benzyl chloride	AIHA,FL,NJ,NY,VA,ME
Bromodichloromethane	AIHA,NJ,NY,VA,ME
Bromoform	AIHA,NJ,NY,VA,ME
Bromomethane	AIHA,FL,NJ,NY,ME
1,3-Butadiene	AIHA,NJ,NY,VA,ME
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA,ME
Carbon Disulfide	AIHA,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloroform	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
Cyclohexane	AIHA,NJ,NY,VA,ME
Dibromochloromethane	NY,ME
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA,ME
trans-1,3-Dichloropropene	NY,ME
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,VA,ME
1,4-Dioxane	AIHA,NJ,NY,VA,ME
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA,ME
Hexachlorobutadiene	AIHA,NJ,NY,VA,ME
Hexane	AIHA,FL,NJ,NY,VA,ME
Isopropanol	NY,ME
Isopropylbenzene (Cumene)	AIHA,NJ,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME
Naphthalene	NY,ME
Styrene	AIHA,FL,NJ,NY,VA,ME
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA,ME
Tetrachloroethylene	AIHA,FL,NJ,NY,VA,ME
Tetrahydrofuran	VA
Toluene	AIHA,FL,NJ,NY,VA,ME

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA,ME
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
Trichloroethylene	AIHA,FL,NJ,NY,VA,ME
Trichlorofluoromethane (Freon 11)	NY,ME
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
Vinyl Acetate	AIHA,FL,NJ,NY,VA,ME
Vinyl Chloride	AIHA,FL,NJ,NY,VA,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2015
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2015
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2015
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015

con-test ANALYTICAL LABORATORY
www.contestlabs.com
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
39 SPRUCE ST
EAST LONGMEADOW, MA 01028

AIR SAMPLE CHAIN OF CUSTODY RECORD

15D1506

DOC#284
Rev. Feb 2014

Company Name: GZA
Address: 530 BROADWAY
PROVIDENCE RHODE ISLAND
Attention: SOPHIA NAKIEWICK / MEG KILPATRICK
Project Location: TIDEWATER
Sampled By: SOPHIA NAKIEWICK

Telephone: 401-421-4140
Project #: 43654
Client PO #:

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☐WEBSITE CLIENT
Fax #:
Email: snakiewicz@gza.com mkilpatrick@gza.com
Format: ☒EXCEL ☐PDF ☐GIS KEY ☐OTHER___

Proposal Provided? (For Billing purposes)
☐yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS Total Minutes Sampled	Flow Rate M^3/Min. or L/Min.	Volume Liters or M^3	Matrix Code*	ANALYSIS REQUESTED T-15	T-3C HELIUM			"Hg Initial pressure	"Hg Final pressure	Lab Receipt pressure	Summa Canister ID	Flow Controller ID
	AMBIENT-4205	S	01	4/20/15 8:30	4/20/15 16:30	–	–	–	AMB	X				-29	-6	-6	1364	3303
	SG-105S	S	02	4/20/15 9:20	4/20/15 9:37	–	–	–	SG	X	X			-30	-4	-1.3	1374	4038
		S	DID NOT USE. RETURN ONLY													-29	1402	4198

Please fill out completely, sign, date and retain the yellow copy for your record.
Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.
For summa canister and flow controller information please refer to Con-Test's Air Media Agreement.

Laboratory Comments:

CLIENT COMMENTS:
-SITE SPECIFIC TO-15 LIST
-DID NOT USE - RETURN ONLY 1402/4198

Relinquished by: (signature)	Date/Time: 4/20/15 17:30	
Received by: (signature)	Date/Time: 4/21/15 925	
Relinquished by: (signature)	Date/Time: 4/21/15 1350	
Received by: (signature)	Date/Time:	

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

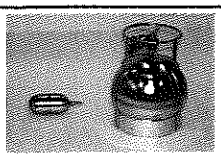
Special Requirements
Regulations: NO CT RCP/MADEP
Data Enhancement/RCP? ☐Y ☒N
Enhanced Data Package ☐Y ☒N
(Surchage Applies)
Required Detection Limits:
Other:

*Matrix Code:
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other

**Media Codes:
S=summa can
T=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. NELAC & AIHA-LAP, LLC Accredited/WBE/DBE Certified

Table of Contents



www.contestlabs.com

con-test® ANALYTICAL LABORATORY

39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

AIR Only Receipt Checklist

CLIENT NAME: GZA **RECEIVED BY:** KB **DATE:** 4/29/15

1) Was the chain(s) of custody relinquished and signed? (Yes) No

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) Are there any samples "On Hold"? Yes (No) Stored where:

5) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)

Who was notified _____ Date _____ Time _____

6) Location where samples are stored: Air Lab

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? _____

Containers received at Con-Test

		# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)		3	3L
Tedlar Bags			
TO-17 Tubes			
Regulators		3	8 Hr., 15 min.
Restrictors			
Hg/Hopcalite Tube (NIOSH 6009)			
(TO-4A/ TO-10A/TO-13) PUFs			
PCB Florisil Tubes (NIOSH 5503)			
Air cassette			
PM 2.5/PM 10			
TO-11A Cartridges			
Other			

Unused Summas/PUF Media:

1402 -29"

Unused Regulators:

4198

1) Was all media (used & unused) checked into the WASP?

2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments: 1364 1374 | 3303 4038

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The coolers'/boxes' custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	F	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) Samples are received within Holding Time.	T	
10) Sample containers have legible labels.	T	
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T	
12) Sample collection date/times are provided.	T	
13) Appropriate sample/media containers are used.	T	
14) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
15) Trip blanks provided if applicable.	NA	

Who notified of False statements?

Log-In Technician Initials: KB

Date/Time: 4/29/15

Date/Time: 15:50 (KB)

Doc #278 Rev. 5 October 2014

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 7, 2015

Margaret Kilpatrick
GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909

Project Location: Pawtucket, RI
Client Job Number:
Project Number: 43654 Tidewater
Laboratory Work Order Number: 15G1327

Enclosed are results of analyses for samples received by the laboratory on July 29, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa A. Worthington
Project Manager

Table of Contents

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

GZA GeoEnvironmental-RI
530 Broadway Street
Providence, RI 02909
ATTN: Margaret Kilpatrick

REPORT DATE: 8/7/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 43654 Tidewater

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15G1327

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Pawtucket, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Ambient-72815	15G1327-01	Ambient Air		EPA TO-15	
SG-105S	15G1327-02	Soil Gas		EPA 3C	
				EPA TO-15	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,1,1-Trichloroethane
15G1327-01[Ambient-72815], 15G1327-02[SG-105S], B128121-BLK1, B128121-BS1

1,2-Dichloropropane
15G1327-01[Ambient-72815], 15G1327-02[SG-105S], B128121-BLK1, B128121-BS1

Acetone
15G1327-01[Ambient-72815], 15G1327-02[SG-105S], B128121-BLK1, B128121-BS1

Hexane
15G1327-01[Ambient-72815], 15G1327-02[SG-105S], B128121-BLK1, B128121-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 7/29/2015
Field Sample #: Ambient-72815
Sample ID: 15G1327-01
Sample Matrix: Ambient Air
Sampled: 7/29/2015 11:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1524
Canister Size: 3 liter
Flow Controller ID: 3081
Sample Type: 8 hr

Work Order: 15G1327
Initial Vacuum(in Hg): -31
Final Vacuum(in Hg): -9
Receipt Vacuum(in Hg): -10
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	ND	2.0	L-03	ND	4.8	1	8/5/15 23:15	TPH
Benzene	0.083	0.050		0.27	0.16	1	8/5/15 23:15	TPH
Benzyl chloride	ND	0.050		ND	0.26	1	8/5/15 23:15	TPH
Bromodichloromethane	ND	0.050		ND	0.34	1	8/5/15 23:15	TPH
Bromoform	ND	0.050		ND	0.52	1	8/5/15 23:15	TPH
Bromomethane	ND	0.050		ND	0.19	1	8/5/15 23:15	TPH
1,3-Butadiene	ND	0.050		ND	0.11	1	8/5/15 23:15	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9	1	8/5/15 23:15	TPH
Carbon Disulfide	ND	0.50		ND	1.6	1	8/5/15 23:15	TPH
Carbon Tetrachloride	ND	0.050		ND	0.31	1	8/5/15 23:15	TPH
Chlorobenzene	ND	0.050		ND	0.23	1	8/5/15 23:15	TPH
Chloroethane	ND	0.050		ND	0.13	1	8/5/15 23:15	TPH
Chloroform	ND	0.050		ND	0.24	1	8/5/15 23:15	TPH
Chloromethane	0.16	0.10		0.34	0.21	1	8/5/15 23:15	TPH
Cyclohexane	ND	0.050		ND	0.17	1	8/5/15 23:15	TPH
Dibromochloromethane	ND	0.050		ND	0.43	1	8/5/15 23:15	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38	1	8/5/15 23:15	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30	1	8/5/15 23:15	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30	1	8/5/15 23:15	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30	1	8/5/15 23:15	TPH
Dichlorodifluoromethane (Freon 12)	0.13	0.050		0.64	0.25	1	8/5/15 23:15	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
1,2-Dichloropropane	ND	0.050	L-03	ND	0.23	1	8/5/15 23:15	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23	1	8/5/15 23:15	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23	1	8/5/15 23:15	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.050		ND	0.35	1	8/5/15 23:15	TPH
1,4-Dioxane	ND	0.50		ND	1.8	1	8/5/15 23:15	TPH
Ethanol	ND	2.0		ND	3.8	1	8/5/15 23:15	TPH
Ethyl Acetate	ND	0.050		ND	0.18	1	8/5/15 23:15	TPH
Ethylbenzene	ND	0.050		ND	0.22	1	8/5/15 23:15	TPH
4-Ethyltoluene	ND	0.050		ND	0.25	1	8/5/15 23:15	TPH
Heptane	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53	1	8/5/15 23:15	TPH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 7/29/2015
Field Sample #: Ambient-72815
Sample ID: 15G1327-01
Sample Matrix: Ambient Air
Sampled: 7/29/2015 11:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1524
Canister Size: 3 liter
Flow Controller ID: 3081
Sample Type: 8 hr

Work Order: 15G1327
Initial Vacuum(in Hg): -31
Final Vacuum(in Hg): -9
Receipt Vacuum(in Hg): -10
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	2.0	L-03	ND	7.0	1	8/5/15 23:15	TPH
2-Hexanone (MBK)	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
Indane	ND	0.13		ND	0.62	1	8/5/15 23:15	TPH
Indene	ND	0.13		ND	0.63	1	8/5/15 23:15	TPH
Isopropanol	ND	2.0		ND	4.9	1	8/5/15 23:15	TPH
Isopropylbenzene (Cumene)	ND	0.13		ND	0.62	1	8/5/15 23:15	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18	1	8/5/15 23:15	TPH
Methylene Chloride	ND	0.50		ND	1.7	1	8/5/15 23:15	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.050		ND	0.20	1	8/5/15 23:15	TPH
Naphthalene	ND	0.050		ND	0.26	1	8/5/15 23:15	TPH
Propene	ND	2.0		ND	3.4	1	8/5/15 23:15	TPH
Styrene	ND	0.050		ND	0.21	1	8/5/15 23:15	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34	1	8/5/15 23:15	TPH
Tetrachloroethylene	0.43	0.050		2.9	0.34	1	8/5/15 23:15	TPH
Tetrahydrofuran	ND	0.050		ND	0.15	1	8/5/15 23:15	TPH
Toluene	0.068	0.050		0.26	0.19	1	8/5/15 23:15	TPH
1,2,4-Trichlorobenzene	ND	0.050		ND	0.37	1	8/5/15 23:15	TPH
1,1,1-Trichloroethane	ND	0.050	L-03	ND	0.27	1	8/5/15 23:15	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27	1	8/5/15 23:15	TPH
Trichloroethylene	ND	0.050		ND	0.27	1	8/5/15 23:15	TPH
Trichlorofluoromethane (Freon 11)	ND	0.20		ND	1.1	1	8/5/15 23:15	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.20		ND	1.5	1	8/5/15 23:15	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25	1	8/5/15 23:15	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25	1	8/5/15 23:15	TPH
Vinyl Acetate	ND	1.0		ND	3.5	1	8/5/15 23:15	TPH
Vinyl Chloride	ND	0.050		ND	0.13	1	8/5/15 23:15	TPH
m&p-Xylene	ND	0.10		ND	0.43	1	8/5/15 23:15	TPH
o-Xylene	ND	0.050		ND	0.22	1	8/5/15 23:15	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	119	70-130	8/5/15 23:15
4-Bromofluorobenzene (2)	114	70-130	8/5/15 23:15

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 7/29/2015
Field Sample #: SG-105S
Sample ID: 15G1327-02
Sample Matrix: Soil Gas
Sampled: 7/29/2015 11:28

Sample Description/Location:
Sub Description/Location:
Canister ID: 1632
Canister Size: 3 liter
Flow Controller ID: 4301
Sample Type: 15 min

Work Order: 15G1327
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA 3C

Analyte	% Results	RL	Flag/Qual	Dilution	Date/Time Analyzed	Analyst
Helium	ND	0.40		1	8/4/15 11:36	TPH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 7/29/2015
Field Sample #: SG-105S
Sample ID: 15G1327-02
Sample Matrix: Soil Gas
Sampled: 7/29/2015 11:28

Sample Description/Location:
Sub Description/Location:
Canister ID: 1632
Canister Size: 3 liter
Flow Controller ID: 4301
Sample Type: 15 min

Work Order: 15G1327
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	11	2.0	L-03	25	4.8	1	8/5/15 23:52	TPH
Benzene	41	0.050		130	0.16	1	8/5/15 23:52	TPH
Benzyl chloride	ND	0.050		ND	0.26	1	8/5/15 23:52	TPH
Bromodichloromethane	ND	0.050		ND	0.34	1	8/5/15 23:52	TPH
Bromoform	ND	0.050		ND	0.52	1	8/5/15 23:52	TPH
Bromomethane	ND	0.050		ND	0.19	1	8/5/15 23:52	TPH
1,3-Butadiene	ND	0.050		ND	0.11	1	8/5/15 23:52	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9	1	8/5/15 23:52	TPH
Carbon Disulfide	ND	0.50		ND	1.6	1	8/5/15 23:52	TPH
Carbon Tetrachloride	ND	0.050		ND	0.31	1	8/5/15 23:52	TPH
Chlorobenzene	0.59	0.050		2.7	0.23	1	8/5/15 23:52	TPH
Chloroethane	ND	0.050		ND	0.13	1	8/5/15 23:52	TPH
Chloroform	ND	0.050		ND	0.24	1	8/5/15 23:52	TPH
Chloromethane	0.89	0.10		1.8	0.21	1	8/5/15 23:52	TPH
Cyclohexane	3.1	0.050		11	0.17	1	8/5/15 23:52	TPH
Dibromochloromethane	ND	0.050		ND	0.43	1	8/5/15 23:52	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38	1	8/5/15 23:52	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30	1	8/5/15 23:52	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30	1	8/5/15 23:52	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30	1	8/5/15 23:52	TPH
Dichlorodifluoromethane (Freon 12)	ND	0.050		ND	0.25	1	8/5/15 23:52	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20	1	8/5/15 23:52	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20	1	8/5/15 23:52	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20	1	8/5/15 23:52	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20	1	8/5/15 23:52	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20	1	8/5/15 23:52	TPH
1,2-Dichloropropane	ND	0.050	L-03	ND	0.23	1	8/5/15 23:52	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23	1	8/5/15 23:52	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23	1	8/5/15 23:52	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.050		ND	0.35	1	8/5/15 23:52	TPH
1,4-Dioxane	ND	0.50		ND	1.8	1	8/5/15 23:52	TPH
Ethanol	ND	2.0		ND	3.8	1	8/5/15 23:52	TPH
Ethyl Acetate	ND	0.050		ND	0.18	1	8/5/15 23:52	TPH
Ethylbenzene	1.2	0.050		5.4	0.22	1	8/5/15 23:52	TPH
4-Ethyltoluene	1.6	0.050		7.7	0.25	1	8/5/15 23:52	TPH
Heptane	10	0.050		41	0.20	1	8/5/15 23:52	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53	1	8/5/15 23:52	TPH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Pawtucket, RI
Date Received: 7/29/2015
Field Sample #: SG-105S
Sample ID: 15G1327-02
Sample Matrix: Soil Gas
Sampled: 7/29/2015 11:28

Sample Description/Location:
Sub Description/Location:
Canister ID: 1632
Canister Size: 3 liter
Flow Controller ID: 4301
Sample Type: 15 min

Work Order: 15G1327
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	15	2.0	L-03	54	7.0	1	8/5/15 23:52	TPH
2-Hexanone (MBK)	4.5	0.050		18	0.20	1	8/5/15 23:52	TPH
Indane	0.60	0.13		2.9	0.62	1	8/5/15 23:52	TPH
Indene	ND	0.13		ND	0.63	1	8/5/15 23:52	TPH
Isopropanol	ND	2.0		ND	4.9	1	8/5/15 23:52	TPH
Isopropylbenzene (Cumene)	1.1	0.13		5.6	0.62	1	8/5/15 23:52	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18	1	8/5/15 23:52	TPH
Methylene Chloride	ND	0.50		ND	1.7	1	8/5/15 23:52	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.050		ND	0.20	1	8/5/15 23:52	TPH
Naphthalene	0.25	0.050		1.3	0.26	1	8/5/15 23:52	TPH
Propene	ND	2.0		ND	3.4	1	8/5/15 23:52	TPH
Styrene	0.20	0.050		0.84	0.21	1	8/5/15 23:52	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34	1	8/5/15 23:52	TPH
Tetrachloroethylene	ND	0.050		ND	0.34	1	8/5/15 23:52	TPH
Tetrahydrofuran	ND	0.050		ND	0.15	1	8/5/15 23:52	TPH
Toluene	2.1	0.050		7.9	0.19	1	8/5/15 23:52	TPH
1,2,4-Trichlorobenzene	ND	0.050		ND	0.37	1	8/5/15 23:52	TPH
1,1,1-Trichloroethane	ND	0.050	L-03	ND	0.27	1	8/5/15 23:52	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27	1	8/5/15 23:52	TPH
Trichloroethylene	ND	0.050		ND	0.27	1	8/5/15 23:52	TPH
Trichlorofluoromethane (Freon 11)	ND	0.20		ND	1.1	1	8/5/15 23:52	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.20		ND	1.5	1	8/5/15 23:52	TPH
1,2,4-Trimethylbenzene	5.1	0.050		25	0.25	1	8/5/15 23:52	TPH
1,3,5-Trimethylbenzene	2.6	0.050		13	0.25	1	8/5/15 23:52	TPH
Vinyl Acetate	ND	1.0		ND	3.5	1	8/5/15 23:52	TPH
Vinyl Chloride	ND	0.050		ND	0.13	1	8/5/15 23:52	TPH
m&p-Xylene	11	0.10		47	0.43	1	8/5/15 23:52	TPH
o-Xylene	3.2	0.050		14	0.22	1	8/5/15 23:52	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	120	70-130	8/5/15 23:52
4-Bromofluorobenzene (2)	117	70-130	8/5/15 23:52

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: TO-15 Prep-EPA 3C

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15G1327-02 [SG-105S]	B127805	1.5	1	N/A	1000	0.5	0.75	08/04/15

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15G1327-01 [Ambient-72815]	B128121	1	1	N/A	1000			08/05/15
15G1327-02 [SG-105S]	B128121	1	1	N/A	1000			08/05/15

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Miscellaneous Air Analyses - Quality Control

Analyte	% Results	% RL	ug/m3 Results	ug/m3 RL	Spike Level %	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B127805 - TO-15 Prep											
Blank (B127805-BLK1)					Prepared & Analyzed: 08/04/15						
Helium	ND	0.40									
LCS (B127805-BS1)					Prepared & Analyzed: 08/04/15						
Helium	1.08				1.00		108	70-130			
Duplicate (B127805-DUP1)			**Source: 15G1327-02**		Prepared & Analyzed: 08/04/15						
Helium	ND	0.40				0.0				25	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B128121 - TO-15 Prep											
Blank (B128121-BLK1)					Prepared & Analyzed: 08/05/15						
Acetone	ND	2.0									L-03
Benzene	ND	0.050									
Benzyl chloride	ND	0.050									
Bromodichloromethane	ND	0.050									
Bromoform	ND	0.050									
Bromomethane	ND	0.050									
1,3-Butadiene	ND	0.050									
2-Butanone (MEK)	ND	2.0									
Carbon Disulfide	ND	0.50									
Carbon Tetrachloride	ND	0.050									
Chlorobenzene	ND	0.050									
Chloroethane	ND	0.050									
Chloroform	ND	0.050									
Chloromethane	ND	0.10									
Cyclohexane	ND	0.050									
Dibromochloromethane	ND	0.050									
1,2-Dibromoethane (EDB)	ND	0.050									
1,2-Dichlorobenzene	ND	0.050									
1,3-Dichlorobenzene	ND	0.050									
1,4-Dichlorobenzene	ND	0.050									
Dichlorodifluoromethane (Freon 12)	ND	0.050									
1,1-Dichloroethane	ND	0.050									
1,2-Dichloroethane	ND	0.050									
1,1-Dichloroethylene	ND	0.050									
cis-1,2-Dichloroethylene	ND	0.050									
trans-1,2-Dichloroethylene	ND	0.050									
1,2-Dichloropropane	ND	0.050									L-03
cis-1,3-Dichloropropene	ND	0.050									
trans-1,3-Dichloropropene	ND	0.050									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.050									
1,4-Dioxane	ND	0.50									
Ethanol	ND	2.0									
Ethyl Acetate	ND	0.050									
Ethylbenzene	ND	0.050									
4-Ethyltoluene	ND	0.050									
Heptane	ND	0.050									
Hexachlorobutadiene	ND	0.050									
Hexane	ND	2.0									L-03
2-Hexanone (MBK)	ND	0.050									
Indane	ND	0.13									
Indene	ND	0.13									
Isopropanol	ND	2.0									
Isopropylbenzene (Cumene)	ND	0.13									
Methyl tert-Butyl Ether (MTBE)	ND	0.050									
Methylene Chloride	ND	0.50									
4-Methyl-2-pentanone (MIBK)	ND	0.050									

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B128121 - TO-15 Prep												
Blank (B128121-BLK1)					Prepared & Analyzed: 08/05/15							
Naphthalene	ND	0.050										
Propene	ND	2.0										
Styrene	ND	0.050										
1,1,2,2-Tetrachloroethane	ND	0.050										
Tetrachloroethylene	ND	0.050										
Tetrahydrofuran	ND	0.050										
Toluene	ND	0.050										
1,2,4-Trichlorobenzene	ND	0.050										
1,1,1-Trichloroethane	ND	0.050										L-03
1,1,2-Trichloroethane	ND	0.050										
Trichloroethylene	ND	0.050										
Trichlorofluoromethane (Freon 11)	ND	0.20										
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.20										
1,2,4-Trimethylbenzene	ND	0.050										
1,3,5-Trimethylbenzene	ND	0.050										
Vinyl Acetate	ND	1.0										
Vinyl Chloride	ND	0.050										
m&p-Xylene	ND	0.10										
o-Xylene	ND	0.050										
Surrogate: 4-Bromofluorobenzene (1)	*9.44*				*8.00*		*118*		*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*9.03*				*8.00*		*113*		*70-130*			
LCS (B128121-BS1)					Prepared & Analyzed: 08/05/15							
Acetone	3.35				5.00		**66.9**	*	70-130			L-03
Benzene	3.64				5.00		72.8		70-130			
Benzyl chloride	4.83				5.00		96.7		70-130			
Bromodichloromethane	3.68				5.00		73.6		70-130			
Bromoform	5.11				5.00		102		70-130			
Bromomethane	5.53				5.00		111		70-130			
1,3-Butadiene	4.25				5.00		85.0		70-130			
2-Butanone (MEK)	4.40				5.00		88.0		70-130			
Carbon Disulfide	4.21				5.00		84.2		70-130			
Carbon Tetrachloride	3.90				5.00		77.9		70-130			
Chlorobenzene	4.40				5.00		87.9		70-130			
Chloroethane	4.55				5.00		91.0		70-130			
Chloroform	4.36				5.00		87.2		70-130			
Chloromethane	3.90				5.00		77.9		70-130			
Cyclohexane	3.88				5.00		77.5		70-130			
Dibromochloromethane	4.18				5.00		83.7		70-130			
1,2-Dibromoethane (EDB)	3.66				5.00		73.2		70-130			
1,2-Dichlorobenzene	5.05				5.00		101		70-130			
1,3-Dichlorobenzene	5.06				5.00		101		70-130			
1,4-Dichlorobenzene	5.09				5.00		102		70-130			
Dichlorodifluoromethane (Freon 12)	4.80				5.00		95.9		70-130			
1,1-Dichloroethane	4.07				5.00		81.5		70-130			
1,2-Dichloroethane	3.80				5.00		76.0		70-130			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B128121 - TO-15 Prep												
LCS (B128121-BS1)					Prepared & Analyzed: 08/05/15							
1,1-Dichloroethylene	4.00				5.00		79.9		70-130			
cis-1,2-Dichloroethylene	3.99				5.00		79.8		70-130			
trans-1,2-Dichloroethylene	3.63				5.00		72.7		70-130			
1,2-Dichloropropane	3.31				5.00		**66.2**	*	70-130			L-03
cis-1,3-Dichloropropene	3.82				5.00		76.4		70-130			
trans-1,3-Dichloropropene	3.70				5.00		74.1		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	5.44				5.00		109		70-130			
1,4-Dioxane	4.24				5.00		84.8		70-130			
Ethanol	4.34				5.00		86.9		70-130			
Ethyl Acetate	4.52				5.00		90.3		70-130			
Ethylbenzene	4.22				5.00		84.5		70-130			
4-Ethyltoluene	4.31				5.00		86.2		70-130			
Heptane	3.66				5.00		73.1		70-130			
Hexachlorobutadiene	5.79				5.00		116		70-130			
Hexane	3.26				5.00		**65.3**	*	70-130			L-03
2-Hexanone (MBK)	3.60				5.00		72.1		70-130			
Indane	1.04				1.29		80.5		70-130			
Indene	1.10				1.32		83.0		70-130			
Isopropanol	3.68				5.00		73.5		70-130			
Isopropylbenzene (Cumene)	0.919				1.27		72.4		70-130			
Methyl tert-Butyl Ether (MTBE)	4.41				5.00		88.2		70-130			
Methylene Chloride	4.36				5.00		87.2		70-130			
4-Methyl-2-pentanone (MIBK)	3.67				5.00		73.3		70-130			
Naphthalene	5.65				5.00		113		70-130			
Propene	4.54				5.00		90.9		70-130			
Styrene	4.66				5.00		93.2		70-130			
1,1,2,2-Tetrachloroethane	3.77				5.00		75.4		70-130			
Tetrachloroethylene	3.95				5.00		79.0		70-130			
Tetrahydrofuran	4.97				5.00		99.4		70-130			
Toluene	3.77				5.00		75.5		70-130			
1,2,4-Trichlorobenzene	6.02				5.00		120		70-130			
1,1,1-Trichloroethane	3.48				5.00		**69.6**	*	70-130			L-03
1,1,2-Trichloroethane	3.52				5.00		70.4		70-130			
Trichloroethylene	3.65				5.00		73.0		70-130			
Trichlorofluoromethane (Freon 11)	5.90				5.00		118		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.06				5.00		101		70-130			
1,2,4-Trimethylbenzene	4.36				5.00		87.3		70-130			
1,3,5-Trimethylbenzene	4.15				5.00		83.0		70-130			
Vinyl Acetate	4.44				5.00		88.9		70-130			
Vinyl Chloride	4.77				5.00		95.5		70-130			
m&p-Xylene	8.85				10.0		88.5		70-130			
o-Xylene	4.05				5.00		81.0		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*9.49*				*8.00*		*119*		*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*9.10*				*8.00*		*114*		*70-130*			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	NY,ME
Benzene	AIHA,FL,NJ,NY,VA,ME
Benzyl chloride	AIHA,FL,NJ,NY,VA,ME
Bromodichloromethane	AIHA,NJ,NY,VA,ME
Bromoform	AIHA,NJ,NY,VA,ME
Bromomethane	AIHA,FL,NJ,NY,ME
1,3-Butadiene	AIHA,NJ,NY,VA,ME
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA,ME
Carbon Disulfide	AIHA,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloroform	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
Cyclohexane	AIHA,NJ,NY,VA,ME
Dibromochloromethane	NY,ME
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA,ME
trans-1,3-Dichloropropene	NY,ME
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,VA,ME
1,4-Dioxane	AIHA,NJ,NY,VA,ME
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA,ME
Hexachlorobutadiene	AIHA,NJ,NY,VA,ME
Hexane	AIHA,FL,NJ,NY,VA,ME
Isopropanol	NY,ME
Isopropylbenzene (Cumene)	AIHA,NJ,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME
Naphthalene	NY,ME
Styrene	AIHA,FL,NJ,NY,VA,ME
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA,ME
Tetrachloroethylene	AIHA,FL,NJ,NY,VA,ME
Tetrahydrofuran	VA
Toluene	AIHA,FL,NJ,NY,VA,ME

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA,ME
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
Trichloroethylene	AIHA,FL,NJ,NY,VA,ME
Trichlorofluoromethane (Freon 11)	NY,ME
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
Vinyl Acetate	AIHA,FL,NJ,NY,VA,ME
Vinyl Chloride	AIHA,FL,NJ,NY,VA,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	09/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY RECORD

EC1327

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

Page 1 of 1

Company Name: GZA
Address: 530 BROADWAY
PROVIDENCE, RI
Attention: SOPHIA NARKIEWICZ / MEG KILPATRICK
Project Location: PROVIDENCE, RI
Sampled By: SOPHIA NARKIEWICZ

Telephone: (401) 421-4140
Project # 43654 TIDEWATER
Client PO #

DATA DELIVERY (check one):
☐ FAX ☐ EMAIL ☐ WEBSITE CLIENT
Fax # : mk.kilpatrick@gza.com
Email: sophia.narkiewicz@gza.com
Format: ☒ EXCEL ☒ PDF ☐ GIS KEY ☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS Total Minutes Sampled	Flow Rate M^3/Min. or L / Min.	Volume Liters or M^3	Matrix Code*	ANALYSIS REQUESTED: 10-15 Site-specific	TO-3C Helium			" Hg Initial pressure	" Hg Final Pressure	Lab Receipt Pressure	Summa Canister ID	Flow Controller ID
	AMBIENT-72815	S	01	7/28/15 8:30	7/28/15 14:35	—	—	—	AMB	X				-31	-9		1524	3081
	SG 1055	S	02	7/28/15 10:13	7/28/15 12:28	—	—	—	SG	X	X			-29	-4		1632	4301
			DID NOT USE - RETURN ONLY														1403	4300

Please fill out completely, sign, date and retain the yellow copy for your record.
Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.
Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.

Laboratory Comments:

CLIENT COMMENTS:
- SITE SPECIFIC TO 15 LIST
- DID NOT USE

Relinquished by: (signature)	Date/Time: 7/28/15 17:35	
Received by: (signature)	Date/Time: 7/29/15 930	
Relinquished by: (signature)	Date/Time: 7/29/15 2410	
Received by: (signature)	Date/Time: 7/29/15 1440	

Turnaround **
☒ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

Special Requirements
Regulations: _____
Data Enhancement/RCP? ☐ Y ☒ N
Enhanced Data Package ☐ Y ☒ N
(Surchage Applies)
Required Detection Limits: NONE CITED
Other: MADEP

***Matrix Code:**
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other_____

****Media Codes:**
S=summa can
TB=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other_____

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

Table of Contents

www.contestlabs.com

con-test ANALYTICAL LABORATORY

Page 1 of 2

39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

AIR Only Receipt Checklist

CLIENT NAME: GZA RECEIVED BY: RF DATE: 7/29/15

1) Was the chain(s) of custody relinquished and signed? (Yes) No

2) Does the chain agree with the samples? (Yes) No
If not, explain:

3) Are all the samples in good condition? (Yes) No
If not, explain:

4) Are there any samples "On Hold"? Yes (No) Stored where:

5) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)
Who was notified _____ Date _____ Time _____

6) Location where samples are stored: air lab

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? None

Containers received at Con-Test

	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	3	3
Tedlar Bags		
TO-17 Tubes		
Regulators	3	8hr
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media: 1403 -28

Unused Regulators: 4300

1) Was all media (used & unused) checked into the WASP?

2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments: 1524 1630 3081 4301

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The coolers'/boxes' custody seal, if present, is intact.	T	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	NA	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) Samples are received within Holding Time.	T	
10) Sample containers have legible labels.	T	
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T	
12) Sample collection date/times are provided.	T	
13) Appropriate sample/media containers are used.	T	
14) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
15) Trip blanks provided if applicable.	NA	

Who notified of False statements? **Date/Time:**

Log-In Technician Initials: **Date/Time:**

BLF 7/29/15 1440

Doc #278 Rev. 5 October 2014