Payson Long
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
Bureau of Program Management
625 Broadway, 12th Floor
Albany, NY 12233-7012

Arcadis CE, Inc.
855 Route 146
Suite 210
Clifton Park
New York 12065
Tel 518 250 7300
Fax 518 250 7301
www.arcadis.com

Subject:
May 2017 Monthly Report
Site Management/RSO
Fort Edward Landfill
NYSDEC Site No. 558001
Contract No. D007618-39

Date:
July 11, 2017

Contact:
Andy Vitolins

Phone:
518.250.7300

Email:
andy.vitolins@arcadis.com

Our ref:
00266434.0000

Dear Mr. Long:

Arcadis CE, Inc. (Arcadis) has prepared this letter report to summarize the leachate collection and treatment system operation, maintenance, and monitoring (OM&M) activities completed during the May 2017 reporting period.

Leachate Collection and Treatment System Operation and Maintenance

The leachate collection system operated with minimal downtime during this period. The primary downtime was related to alarms generated during reconfiguration of the program logic controller (PLC). Approximately 405,096 gallons of leachate were collected and treated through the system during May 2017. The corresponding average leachate recovery rate for the month was approximately 9.1 gallons per minute (gpm).

The following O&M activities were completed during the May 2017 operating period:

- Iron and solids sludge processing was performed throughout the month. In total, six 55-gallon drums of sludge were generated during the May 2017 operating period.
- Filter press sludge samples were collected on May 24, 2017 for waste characterization analysis. The analytical results are provided in Attachment A. As shown in Attachment A, the total PCB concentration in the sludge sample (87 milligram per kilogram [mg/kg]) was greater than 50 mg/kg,

therefore the waste will be regulated in accordance with the Toxic Substance Control Act (TSCA).

- The leak in the hydraulic ram for the filter press was repaired. The repaired ram was installed and the filter press is now fully operational.
- Surface water samples were collected from the Unnamed Pond on May 24, 2017 to provide baseline analytical results prior to dewatering the pond. Dewatering is scheduled to commence in June 2017. A summary of the analytical data and dewatering activities will be provided in the June 2017 Monthly Report.

System Optimization

Arcadis is currently in the process of upgrading the treatment system as described in the Fort Edward WA 2015 Work Scope, and as outlined in the Remedial System Optimization (HRP, 2015). The first and second phases of upgrades have been completed. These elements were summarized in the previous Monthly Reports (Arcadis 2016 and 2017), respectively. The third phase of remedial system optimization upgrades completed in May 2017 included the following:

- Extraction wells EW-1 and EW-3 were brought online on May 12, 2017 after inspection of level and flow sensors determined that they were operational.
- ProControl PLC modifications were made throughout the month of May to allow for automation of the chemical feed pumps.

System Sampling

The monthly samples were collected on May 24, 2017 from the following locations:

- Extraction Wells EW-1, EW-2, EW-3, and EW-4.
- Treatment System Influent (i.e. combined flow from EW-1, EW-2, EW-3, and EW-4)
- Clarifier Catch Tank discharge
- Cell 1, Cell 2, and Cell 3 (i.e. treatment cell discharge into the effluent collection chambers)
- Polishing Pond Effluent.

During the May sampling event, Treatment Cell 1 was offline. However, water was flowing from the Treatment Cell 1 discharge pipe in the collection chamber. This was likely due to the combination of precipitation, and/or groundwater seepage into the cell. Therefore, samples were collected from the Treatment Cell 1 discharge piping to evaluate contaminant loading from Treatment Cell 1 to the polishing pond. In addition, water was flowing from the Treatment Cell 3 discharge piping in the collection chamber. This was also likely due to frequent precipitation events. Therefore, samples were also collected from the discharge piping in the collection chamber at Cell 3.

The routine samples were submitted to Con-Test Analytical for analysis of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), metals, total dissolved solids (TDS), and total suspended solids (TSS).

The analytical results are discussed in the sections below and have been summarized in Table 1. The laboratory analytical data will be submitted to NYSDEC's EIMS Administrator in the required EQuIS EDD format.

Analytical Results

VOCs

As shown in Table 1, VOCs were detected in Extraction Wells EW-1, EW-2, and EW-3 at concentrations that exceeded the NYSDEC Class GA Groundwater Standards. EW-1 contained nine VOCs, EW-2 contained one VOC, and EW-3 contained three VOCs at concentrations greater than the respective NYSDEC Standards. The sample from EW-1 contained cis-1,2-dichloroethylene (320 micrograms per liter [µg/L]) and vinyl chloride (390 µg/L). These compounds were also present in the combined influent to the treatment system (Influent) and treatment plant discharge (Clarifier Catch) at concentrations that exceeded the NYSDEC Class GA Groundwater Standards. As shown in Table 1, the Influent sample concentrations of cis-1,2-dichloroethylene and vinyl chloride were 7.0 µg/L and 11 µg/L, respectively; the Clarifier Catch sample concentrations of cis-1,2-dichloroethylene and vinyl chloride were 10.0 µg/L and 14 µg/L, respectively. Table 1 shows that VOCs were detected at estimated concentrations and did not exceed NYSDEC Standards in the effluent collection chamber samples (Cell 1, Cell 2 and Cell 3). As shown in Table 1, no VOCs were detected at concentrations greater than the respective quantitation limits in the Effluent sample from the Polishing Pond.

PCBs

PCB-1016 was the only PCB Aroclor detected in the samples collected from EW-1, EW-4, Influent, and the Clarifier Catch Tank at concentrations greater than the NYSDEC Class GA Groundwater Standard. PCBs were not detected in the effluent collection chamber samples or the Polishing Pond Effluent sample during the May 2017 sampling event (Table 1). During monthly sampling events since July 2016, PCB Aroclor 1221, 1232, or 1242 had generally been detected in the Influent or Clarifier Catch Tank samples. However, the concentration of Aroclor 1016 in the sample from EW-1 (910 µg/L) is significantly greater than these previous results.

Metals

Iron and manganese were detected at nearly all the sample locations at concentrations greater than the corresponding NYSDEC Class GA Groundwater Standard and Effluent Limitation of 0.3 milligram per liter (mg/L) and 0.6 mg/L, respectively. The highest concentration of iron was detected in the sample from EW-1 (72 mg/L). The highest concentration of manganese was detected in the sample from Cell 3 (2.3 mg/L). As shown in Table 1, the Effluent samples also contained iron and manganese concentrations (1.8 mg/L and 0.96 mg/L, respectively) above the respective NYSDEC Class GA Groundwater Standard and/or Effluent Limitations. Table 1 also shows that the concentration of iron increased by an order of magnitude after being discharged from the treatment plant and flowing through the treatment cells. Magnesium was detected in the samples from EW-1 (57 mg/L), EW-2 (43 mg/L), EW-3 (39 mg/L) at concentrations greater than the respective NYSDEC Class GA Groundwater Standard and Effluent Limitation of 35 mg/L. None of the other samples contained magnesium greater than the corresponding NYSDEC Standards.

TDS and TSS

The concentrations of TDS and TSS continue to fluctuate between sampling events. During the May sampling event, TDS concentrations ranged between 390 mg/L and 1,300 mg/L; TSS concentrations ranged from non-detect and 120 mg/L. These data are consistent with the results from previous sampling

events. Since September 2016, TDS and TSS have ranged from 210 to 1,300 mg/L and 0 to 120 mg/L, respectively.

Next Reporting Period Planned Activities

The following activities are anticipated for June 2017:

- Substantial completion of programmable logic controller programming;
- Brush cutting and clearing along the landfill drainage swales, the perimeter of the treatment cells, and near well vaults and other structures;
- Mowing in select areas of the cap for wild parsnip control;
- Excavation of accumulated sediment and regrading in Southern midcap swale;
- Placement of gravel and regrading of select roadway areas;
- Dewatering and monitoring of Unnamed Pond;
- Inspection and repair cleanout CO FD-2;
- Continuation of iron and solids treatment and processing.

If you have any questions, please do not hesitate to contact me or Jeremy Wyckoff.

Sincerely,

Arcadis CE, Inc.

Andy Vitolins
Associate Vice President

Copies:
Jeremy Wyckoff, Arcadis
File

Enclosures:
Table
1 May Treatment System Analytical Data

Attachment
1 Filter Sludge Analytical Results

Table 1. May Treatment System Analytical Data, Fort Edward Landfill
Fort Edward, New York. NYSDEC Site No. 558001

ARCADIS Design & Consultancy for natural and built assets

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	EW-1 5/24/2017	EW-2 5/24/2017	EW-3 5/24/2017	EW-4 5/24/2017	INFLUENT 5/24/2017	CLARIFIER CATCH 5/24/2017	CELL 3 5/24/2017	CELL 2 5/24/2017	CELL 1 5/24/2017	EFFLUENT 5/24/2017
Volatile Organic Compounds (ug/L)												
ACETONE	50	50	17.0 J	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	9.5 J	50.0 U	50.0 U	50.0 U
BENZENE	1	1	**8.80**	**2.30**	**4.20**	0.16 J	0.38 J	0.47 J	1.00 U	1.00 U	1.00 U	1.00 U
BROMOCHLOROMETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-BUTANONE (MEK)	50	50	47	20 U	20 U	20 U	20 U	20 U	13 J	20 U	20 U	20 U
CARBON DISULFIDE	60	60	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
CARBON TETRACHLORIDE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	5	**7.40**	0.93 J	**30.00**	0.26 J	0.59 J	0.67 J	1.00 U	1.00 U	1.00 U	1.00 U
CHLORODIBROMOMETHANE	50	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	5	2.00 U	2.00 U	0.51 J	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
CYCLOHEXANE	--	--	0.64	5.00 U	0.92 J	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	3	1.00 U	1.00 U	0.52 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,3-DICHLOROBENZENE	3	3	0.39 J	1.00 U	0.31 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
1,4-DICHLOROBENZENE	3	3	0.67 J	0.29 J	**6.50**	1.00 U	0.20 J	0.23 J	1.00 U	1.00 U	1.00 U	1.00 U
DICHLORODIFLUOROMETHANE	5	5	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-DICHLOROETHANE	5	5	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	5	**320.00**	0.37 J	1.00 U	0.31 J	**7.00**	**10.00**	0.68 J	0.69 J	1.00 U	1.00 U
TRANS-1,2-DICHLOROETHYLENE	5	5	**5.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	0.6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	5	5	2.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	--	--	140	50 U	81	50 U	50 U	50 U	50 U	50 U	50 U	50 U
ETHYLBENZENE	5	5	**7.20**	1.00 U	1.00 U	1.00 U	0.15 J	0.20 J	1.00 U	1.00 U	1.00 U	1.00 U
2-HEXANONE	50	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	5	3.10	0.34 J	1.30	1.00 U	0.12 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
METHYL ACETATE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.00 U	0.92 J	0.68 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
METHYL CYCLOHEXANE	--	--	1.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYLENE CHLORIDE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	5	930	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	5	5	**28.00**	1.00 U	1.00 U	1.00 U	0.55 J	0.85 J	1.00 U	1.00 U	1.00 U	1.00 U
1,2,3-TRICHLOROBENZENE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE (TCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	2	**390.00**	0.44 J	2.00 U	2.00 U	**11.00**	**14.00**	1.30 J	0.62 J	2.00 U	2.00 U
M,P-XYLENES	5	5	**36.00**	2.00	2.00 U	2.00 U	0.58 J	0.89 J	2.00 U	2.00 U	2.00 U	2.00 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	3.80	0.21 J	0.16 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
XYLENES, TOTAL	5	5	**40.0**	2.0 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
mg/L - milligrams per liter
ug/L - micrograms per liter
NS - Not Sampled

Table 1. May Treatment System Analytical Data, Fort Edward Landfill
Fort Edward, New York. NYSDEC Site No. 558001

ARCADIS Design & Consultancy for natural and built assets

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	EW-1 5/24/2017	EW-2 5/24/2017	EW-3 5/24/2017	EW-4 5/24/2017	INFLUENT 5/24/2017	CLARIFIER CATCH 5/24/2017	CELL 3 5/24/2017	CELL 2 5/24/2017	CELL 1 5/24/2017	EFFLUENT 5/24/2017
Polychlorinated Biphenyls (ug/L)												
PCB-1016 (AROCLOR 1016)	*	*	**910.00**	0.20 U	0.20 U	**0.29**	**4.10**	**4.10**	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1221 (AROCLOR 1221)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1232 (AROCLOR 1232)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1242 (AROCLOR 1242)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1248 (AROCLOR 1248)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1254 (AROCLOR 1254)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1260 (AROCLOR 1260)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1262 (AROCLOR 1262)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
PCB-1268 (AROCLOR 1268)	*	*	100 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Metals (mg/L)												
ALUMINUM	--	2	0.18	0.05 U	0.05 U	0.05 U	0.05 U	0.54	0.05 U	0.05 U	0.05 U	0.05 U
ANTIMONY	0.003	0.006	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
ARSENIC	0.025	0.05	0.010 U	**0.049**	0.012	0.010 U	0.010 U	0.010 U	0.019	0.012	0.010 U	0.010 U
BARIUM	1	2	0.420	0.220	0.310	0.055	0.061	0.053	0.060	0.074	0.061	0.050 U
BERYLLIUM	0.003	0.003	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
CADMIUM	0.005	0.01	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
CALCIUM	--	--	180	130	83	92	100	100	110	110	130	90
CHROMIUM, TOTAL	0.05	0.1	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
COBALT	--	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
COPPER	0.2	1	0.010 U	0.034	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
IRON	0.3	0.6	**72.00**	**68.00**	**35.00**	**20.00**	**16.00**	**4.00**	**19.00**	**9.20**	**10.00**	**1.80**
LEAD	0.025	0.05	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MAGNESIUM	35	35	**57**	**43**	**39**	22	25	25	21	17	25	18
MANGANESE	0.3	0.6	**1.60**	**1.10**	0.17	**1.70**	**1.90**	**1.80**	**2.30**	**1.80**	**1.30**	**0.96**
MERCURY	0.0007	0.0014	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
NICKEL	0.1	0.2	0.019	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.014	0.020	0.010 U
POTASSIUM	--	--	35.0	2.6	51.0	3.1	4.5	5.1	6.5	3.5	2.2	2.1
SELENIUM	0.01	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
SILVER	0.05	0.1	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
SODIUM	--	--	190	99	120	43	65	61	49	41	23	32
THALLIUM	0.0005	0.0005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
VANADIUM	--	--	0.01 U	0.01 U	0.011	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
ZINC	2	5	0.075	0.020 U	0.025	0.020 U	0.020 U	0.035	0.020 U	0.020 U	0.020 U	0.020 U
Conventional Chemistry (mg/L)												
TOTAL DISSOLVED SOLIDS	--	--	1300	740	760	510	540	550	470	510	510	390
TOTAL SUSPENDED SOLIDS	--	--	70	120	64	27	42	23	41	37	49	5 U

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.
* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
mg/L - milligrams per liter
ug/L - micrograms per liter
NS - Not Sampled

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

June 20, 2017

Katie Bidwell
Arcadis US, Inc. - Clifton Park-NY
855 Route 146, Suite 210
Clifton Park, NY 12065

Project Location: Fort Edward
Client Job Number:
Project Number: 00266434
Laboratory Work Order Number: 17E1252

Enclosed are results of analyses for samples received by the laboratory on May 25, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

Table of Contents

Sample Summary 4

Case Narrative 5

Sample Results 8

17E1252-01 8

17E1252-02 16

Sample Preparation Information 18

QC Data 20

Volatile Organic Compounds by GC/MS 20

B177926 20

Polychlorinated Biphenyls By GC/ECD 24

B179608 24

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) 25

B177813 25

B177820 25

B177851 25

B177900 25

TCLP - Volatile Organic Compounds by GC/MS 26

B177953 26

TCLP - Semivolatile Organic Compounds by GC/MS 27

B177897 27

TCLP - Organochloride Pesticides by GC/ECD 29

B177912 29

TCLP - Polychlorinated Biphenyls By GC/ECD 31

B177913 31

TCLP - Herbicides by GC/ECD 33

Table of Contents (continued)

B177935 33

TCLP - Metals Analyses 34

B177898 34

B178035 34

Pesticides Degradation Report 35

Dual Column RPD Report 37

Flag/Qualifier Summary 48

Certifications 49

Chain of Custody/Sample Receipt 55

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

Arcadis US, Inc. - Clifton Park-NY
855 Route 146, Suite 210
Clifton Park, NY 12065
ATTN: Katie Bidwell

REPORT DATE: 6/20/2017

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 00266434

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 17E1252

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

PROJECT LOCATION: Fort Edward

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Filter Sludge	17E1252-01	Sludge		SM 2540G	
				SW-846 1030	
				SW-846 1311	
				SW-846 6010C-D	
				SW-846 7470A	
				SW-846 8081B	
				SW-846 8082A	
				SW-846 8151A	
				SW-846 8260C	
				SW-846 8270D	
				SW-846 9014	
				SW-846 9030A	
				SW-846 9045C	
Trip Blank	17E1252-02	Trip Blank Water		SW-846 8260C	

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.

REVISED REPORT 06/21/2017: Report revised for PCB 8082 added per client request on 6/19/17.

For method 8151, samples were derivatized on 05/31/17.

For method 8151, sample analysis bracketed by LCS to monitor esterification. All recoveries in the bracketing LCS met method criteria.

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

SW-846 6010C-D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Selenium
B177898-BS1

SW-846 8081B

Qualifications:

P-02

Sample RPD between primary and confirmatory analysis exceeded 40%. Per EPA method 8000, the lower value was reported due to obvious chromatographic interference on the column with the higher result.

Analyte & Samples(s) Qualified:

gamma-BHC (Lindane) [2C]
17E1252-01[Filter Sludge]

SW-846 8082A

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Aroclor-1016
B177913-MS1

Aroclor-1016 [2C]
B177913-MS1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Aroclor-1016
17E1252-01[Filter Sludge], B179608-BLK1, B179608-BS1, B179608-BSD1

Aroclor-1016 [2C]
17E1252-01[Filter Sludge], B179608-BLK1, B179608-BS1, B179608-BSD1

Aroclor-1260
17E1252-01[Filter Sludge], B179608-BLK1, B179608-BS1, B179608-BSD1

Aroclor-1260 [2C]
17E1252-01[Filter Sludge], B179608-BLK1, B179608-BS1, B179608-BSD1

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
17E1252-01[Filter Sludge]

Decachlorobiphenyl [2C]
17E1252-01[Filter Sludge]

Tetrachloro-m-xylene
17E1252-01[Filter Sludge]

Tetrachloro-m-xylene [2C]
17E1252-01[Filter Sludge]

SW-846 8151A

Qualifications:

DL-03

Elevated reporting limit due to matrix.

Analyte & Samples(s) Qualified:

17E1252-01[Filter Sludge]

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

SW-846 8260C

Qualifications:

L-04

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

Analyte & Samples(s) Qualified:

Methyl Acetate

17E1252-02[Trip Blank], B177926-BLK1, B177926-BS1, B177926-BSD1, S014262-CCV1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Chloromethane

S014262-CCV1

SW-846 9045C

Qualifications:

H-01

Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

Analyte & Samples(s) Qualified:

pH

17E1252-01[Filter Sludge]

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

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.

Lisa A. Worthington
Project Manager

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [2]	87	10	mg/Kg dry	100	R-05	SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1221 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1232 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1242 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1248 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1254 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1260 [1]	ND	10	mg/Kg dry	100	R-05	SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1262 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL
Aroclor-1268 [1]	ND	10	mg/Kg dry	100		SW-846 8082A	6/19/17	6/20/17 12:37	KAL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	6/20/17 12:37
Decachlorobiphenyl [2]	*	30-150	S-01	6/20/17 12:37
Tetrachloro-m-xylene [1]	*	30-150	S-01	6/20/17 12:37
Tetrachloro-m-xylene [2]	*	30-150	S-01	6/20/17 12:37

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ignitability	Absent		present/absent	1		SW-846 1030	5/26/17	5/26/17 16:00	DCF
pH @20.7°C	6.5		pH Units	1	H-01	SW-846 9045C	5/25/17	5/25/17 21:00	IS
Reactive Cyanide	ND	4.0	mg/Kg	1		SW-846 9014	5/26/17	5/30/17 10:05	LL
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	5/26/17	5/30/17 11:35	LL
% Solids	19.2		% Wt	1		SM 2540G	5/25/17	5/25/17 22:34	PDM

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

TCLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
2-Butanone (MEK)	ND	0.20	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
Carbon Tetrachloride	ND	0.050	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
Chlorobenzene	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
Chloroform	ND	0.020	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
1,4-Dichlorobenzene	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
1,2-Dichloroethane	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
1,1-Dichloroethylene	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
Tetrachloroethylene	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
Trichloroethylene	ND	0.010	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD
Vinyl Chloride	ND	0.020	mg/L	10		SW-846 8260C	5/30/17	5/30/17 18:58	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	88.3	70-130		5/30/17 18:58
Toluene-d8	99.0	70-130		5/30/17 18:58
4-Bromofluorobenzene	98.3	70-130		5/30/17 18:58

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

TCLP - Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-Dinitrotoluene	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
Hexachlorobenzene	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
Hexachlorobutadiene	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
Hexachloroethane	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
2-Methylphenol	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
3/4-Methylphenol	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
Nitrobenzene	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
Pentachlorophenol	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
Pyridine	ND	0.025	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
2,4,5-Trichlorophenol	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC
2,4,6-Trichlorophenol	ND	0.050	mg/L	1		SW-846 8270D	5/26/17	5/30/17 15:35	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	67.2	15-110		5/30/17 15:35
Phenol-d6	64.7	15-110		5/30/17 15:35
Nitrobenzene-d5	73.8	30-130		5/30/17 15:35
2-Fluorobiphenyl	80.0	30-130		5/30/17 15:35
2,4,6-Tribromophenol	70.1	15-110		5/30/17 15:35
p-Terphenyl-d14	78.8	30-130		5/30/17 15:35

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

TCLP - Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
gamma-BHC (Lindane) [2]	0.087	0.030	µg/L	1	P-02	SW-846 8081B	5/27/17	5/30/17 14:58	PJG
Chlordane [1]	ND	0.20	µg/L	1		SW-846 8081B	5/27/17	5/30/17 14:58	PJG
Endrin [1]	ND	0.080	µg/L	1		SW-846 8081B	5/27/17	5/30/17 14:58	PJG
Heptachlor [1]	ND	0.050	µg/L	1		SW-846 8081B	5/27/17	5/30/17 14:58	PJG
Heptachlor epoxide [1]	ND	0.050	µg/L	1		SW-846 8081B	5/27/17	5/30/17 14:58	PJG
Methoxychlor [1]	ND	0.50	µg/L	1		SW-846 8081B	5/27/17	5/30/17 14:58	PJG
Toxaphene [1]	ND	1.0	µg/L	1		SW-846 8081B	5/27/17	5/30/17 14:58	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	44.1	30-150		5/30/17 14:58
Decachlorobiphenyl [2]	46.7	30-150		5/30/17 14:58
Tetrachloro-m-xylene [1]	52.5	30-150		5/30/17 14:58
Tetrachloro-m-xylene [2]	46.3	30-150		5/30/17 14:58

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

TCLP - Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [2]	26	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1221 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1232 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1242 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1248 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1254 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1260 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1262 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG
Aroclor-1268 [1]	ND	4.0	µg/L	20		SW-846 8082A	5/27/17	5/31/17 9:56	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	56.3	30-150		5/31/17 9:56
Decachlorobiphenyl [2]	64.0	30-150		5/31/17 9:56
Tetrachloro-m-xylene [1]	66.7	30-150		5/31/17 9:56
Tetrachloro-m-xylene [2]	76.6	30-150		5/31/17 9:56

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

Sample Flags: DL-03

TCLP - Herbicides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-D [1]	ND	1.0	mg/L	20		SW-846 8151A	5/30/17	5/31/17 14:48	JMB
2,4,5-TP (Silvex) [1]	ND	0.10	mg/L	20		SW-846 8151A	5/30/17	5/31/17 14:48	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2,4-Dichlorophenylacetic acid [1]	132	30-150					5/31/17 14:48
2,4-Dichlorophenylacetic acid [2]	137	30-150					5/31/17 14:48

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Filter Sludge | Sampled: 5/24/2017 16:50

Sample ID: 17E1252-01

Sample Matrix: Sludge

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	0.015	0.010	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	5/31/17	6/1/17 8:51	TJK
Barium	1.1	0.050	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN
Cadmium	ND	0.0040	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN
Chromium	0.011	0.010	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN
Lead	ND	0.010	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN
Selenium	ND	0.050	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN
Silver	ND	0.0050	mg/L	1		SW-846 6010C-D	5/26/17	5/30/17 21:49	SHN

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Trip Blank | Sampled: 5/24/2017 00:00

Sample ID: 17E1252-02

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Benzene	ND	1.0	0.12	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Bromochloromethane	ND	1.0	0.22	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Bromodichloromethane	ND	0.50	0.30	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Bromoform	ND	2.0	0.21	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Bromomethane	ND	5.0	0.94	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
2-Butanone (MEK)	ND	20	2.4	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Carbon Disulfide	ND	4.0	1.0	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Carbon Tetrachloride	ND	5.0	0.25	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Chlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Chlorodibromomethane	ND	0.50	0.10	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Cyclohexane	ND	5.0	0.25	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.37	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,3-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,4-Dichlorobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.28	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2-Dichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,1-Dichloroethylene	ND	1.0	0.21	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2-Dichloropropane	ND	1.0	0.13	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
trans-1,3-Dichloropropene	ND	0.50	0.11	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,4-Dioxane	ND	50	26	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Ethylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
2-Hexanone (MBK)	ND	10	1.5	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.12	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Methyl Acetate	ND	1.0	0.42	µg/L	1	L-04	SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.090	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Methyl Cyclohexane	ND	1.0	0.63	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.5	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.12	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Tetrachloroethylene	ND	1.0	0.27	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Toluene	ND	1.0	0.17	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.19	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,1,1-Trichloroethane	ND	1.0	0.13	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,1,2-Trichloroethane	ND	1.0	0.24	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH

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

Project Location: Fort Edward | Sample Description: | Work Order: 17E1252

Date Received: 5/25/2017

Field Sample #: Trip Blank | Sampled: 5/24/2017 00:00

Sample ID: 17E1252-02

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Trichloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.20	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
m+p Xylene	ND	2.0	0.26	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
o-Xylene	ND	1.0	0.13	µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH
Xylenes (total)	ND	3.0		µg/L	1		SW-846 8260C	5/26/17	5/30/17 10:35	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.8	70-130		5/30/17 10:35
Toluene-d8	98.9	70-130		5/30/17 10:35
4-Bromofluorobenzene	99.4	70-130		5/30/17 10:35

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

Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
17E1252-01 [Filter Sludge]	B177813	05/25/17

SW-846 1030

Lab Number [Field ID]	Batch	Initial [g]	Date
17E1252-01 [Filter Sludge]	B177904	50.0	05/26/17

Prep Method: SW-846 3010A-SW-846 6010C-D **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177800**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177898	50.0	50.0	05/26/17

Prep Method: SW-846 7470A Prep-SW-846 7470A **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177800**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B178035	6.00	6.00	05/31/17

Prep Method: SW-846 3510C-SW-846 8081B **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177800**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177912	500	5.00	05/27/17

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B179608	10.0	10.0	06/19/17

Prep Method: SW-846 3510C-SW-846 8082A **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177800**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177913	500	5.00	05/27/17

Prep Method: SW-846 3510C-SW-846 8151A **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177800**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177935	10.0	5.00	05/30/17

Prep Method: SW-846 5030B-SW-846 8260C **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177819**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177953	5.00	5.00	05/30/17

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

Sample Extraction Data

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-02 [Trip Blank]	B177926	5	5.00	05/26/17

Prep Method: SW-846 3510C-SW-846 8270D **Leachates were extracted on 5/25/2017 per SW-846 1311 in Batch B177800**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177897	200	1.00	05/26/17

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177851	25.1	250	05/26/17

SW-846 9030A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17E1252-01 [Filter Sludge]	B177900	25.1	250	05/26/17

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
17E1252-01 [Filter Sludge]	B177820	20.0	05/25/17

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

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177926 - SW-846 5030B										
Blank (B177926-BLK1)				Prepared & Analyzed: 05/30/17						
Acetone	ND	50	µg/L							
Benzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
Carbon Disulfide	ND	4.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Cyclohexane	ND	5.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							L-04
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Xylenes (total)	ND	3.0	µg/L							

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

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B177926 - SW-846 5030B												
Blank (B177926-BLK1)				Prepared & Analyzed: 05/30/17								
Surrogate: 1,2-Dichloroethane-d4	*23.4*		µg/L	25.0		93.8		70-130				
Surrogate: Toluene-d8	*24.6*		µg/L	25.0		98.4		70-130				
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100		70-130				
LCS (B177926-BS1)				Prepared & Analyzed: 05/30/17								
Acetone	81.1	50	µg/L	100		81.1		70-160				†
Benzene	9.13	1.0	µg/L	10.0		91.3		70-130				
Bromochloromethane	9.22	1.0	µg/L	10.0		92.2		70-130				
Bromodichloromethane	9.86	0.50	µg/L	10.0		98.6		70-130				
Bromoform	11.2	1.0	µg/L	10.0		112		70-130				
Bromomethane	4.79	2.0	µg/L	10.0		47.9		40-160				†
2-Butanone (MEK)	73.8	20	µg/L	100		73.8		40-160				†
Carbon Disulfide	12.7	4.0	µg/L	10.0		127		70-130				
Carbon Tetrachloride	10.2	5.0	µg/L	10.0		102		70-130				
Chlorobenzene	10.2	1.0	µg/L	10.0		102		70-130				
Chlorodibromomethane	10.2	0.50	µg/L	10.0		102		70-130				
Chloroethane	8.90	2.0	µg/L	10.0		89.0		70-130				
Cyclohexane	8.88	5.0	µg/L	10.0		88.8		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	10.2	5.0	µg/L	10.0		102		70-130				
1,2-Dibromoethane (EDB)	9.67	0.50	µg/L	10.0		96.7		70-130				
1,2-Dichlorobenzene	9.95	1.0	µg/L	10.0		99.5		70-130				
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103		70-130				
1,4-Dichlorobenzene	9.49	1.0	µg/L	10.0		94.9		70-130				
Dichlorodifluoromethane (Freon 12)	5.78	2.0	µg/L	10.0		57.8		40-160				†
1,1-Dichloroethane	9.99	1.0	µg/L	10.0		99.9		70-130				
1,2-Dichloroethane	8.83	1.0	µg/L	10.0		88.3		70-130				
1,1-Dichloroethylene	9.26	1.0	µg/L	10.0		92.6		70-130				
cis-1,2-Dichloroethylene	9.03	1.0	µg/L	10.0		90.3		70-130				
trans-1,2-Dichloroethylene	9.11	1.0	µg/L	10.0		91.1		70-130				
1,2-Dichloropropane	8.90	1.0	µg/L	10.0		89.0		70-130				
cis-1,3-Dichloropropene	9.47	0.50	µg/L	10.0		94.7		70-130				
trans-1,3-Dichloropropene	11.1	0.50	µg/L	10.0		111		70-130				
1,4-Dioxane	113	50	µg/L	100		113		40-130				†
Ethylbenzene	10.4	1.0	µg/L	10.0		104		70-130				
2-Hexanone (MBK)	77.6	10	µg/L	100		77.6		70-160				†
Isopropylbenzene (Cumene)	10.9	1.0	µg/L	10.0		109		70-130				
Methyl Acetate	4.48	1.0	µg/L	10.0		**44.8**	*	70-130			L-04	
Methyl tert-Butyl Ether (MTBE)	9.87	1.0	µg/L	10.0		98.7		70-130				
Methyl Cyclohexane	9.35	1.0	µg/L	10.0		93.5		70-130				
Methylene Chloride	9.31	5.0	µg/L	10.0		93.1		70-130				
4-Methyl-2-pentanone (MIBK)	78.5	10	µg/L	100		78.5		70-160				†
Styrene	10.6	1.0	µg/L	10.0		106		70-130				
1,1,1,2-Tetrachloroethane	10.5	1.0	µg/L	10.0		105		70-130				
Tetrachloroethylene	10.6	1.0	µg/L	10.0		106		70-130				
Toluene	9.67	1.0	µg/L	10.0		96.7		70-130				
1,2,3-Trichlorobenzene	9.21	5.0	µg/L	10.0		92.1		70-130				
1,2,4-Trichlorobenzene	9.70	1.0	µg/L	10.0		97.0		70-130				
1,1,1-Trichloroethane	10.0	1.0	µg/L	10.0		100		70-130				
1,1,2-Trichloroethane	9.70	1.0	µg/L	10.0		97.0		70-130				
Trichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
Trichlorofluoromethane (Freon 11)	8.28	2.0	µg/L	10.0		82.8		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.72	1.0	µg/L	10.0		87.2		70-130				

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

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B177926 - SW-846 5030B												
LCS (B177926-BS1)				Prepared & Analyzed: 05/30/17								
Vinyl Chloride	9.12	2.0	µg/L	10.0		91.2		40-160				†
m+p Xylene	20.3	2.0	µg/L	20.0		102		70-130				
o-Xylene	10.3	1.0	µg/L	10.0		103		70-130				
Surrogate: 1,2-Dichloroethane-d4	*23.1*		µg/L	25.0		92.4		70-130				
Surrogate: Toluene-d8	*24.4*		µg/L	25.0		97.4		70-130				
Surrogate: 4-Bromofluorobenzene	*25.3*		µg/L	25.0		101		70-130				
LCS Dup (B177926-BSD1)				Prepared & Analyzed: 05/30/17								
Acetone	81.6	50	µg/L	100		81.6		70-160	0.615	25		†
Benzene	8.81	1.0	µg/L	10.0		88.1		70-130	3.57	25		
Bromochloromethane	9.18	1.0	µg/L	10.0		91.8		70-130	0.435	25		
Bromodichloromethane	9.51	0.50	µg/L	10.0		95.1		70-130	3.61	25		
Bromoform	10.9	1.0	µg/L	10.0		109		70-130	2.63	25		
Bromomethane	5.42	2.0	µg/L	10.0		54.2		40-160	12.3	25		†
2-Butanone (MEK)	71.2	20	µg/L	100		71.2		40-160	3.63	25		†
Carbon Disulfide	12.5	4.0	µg/L	10.0		125		70-130	1.27	25		
Carbon Tetrachloride	9.83	5.0	µg/L	10.0		98.3		70-130	3.79	25		
Chlorobenzene	10.3	1.0	µg/L	10.0		103		70-130	0.973	25		
Chlorodibromomethane	10.1	0.50	µg/L	10.0		101		70-130	0.891	25		
Chloroethane	9.03	2.0	µg/L	10.0		90.3		70-130	1.45	25		
Cyclohexane	8.26	5.0	µg/L	10.0		82.6		70-130	7.23	25		
1,2-Dibromo-3-chloropropane (DBCP)	10.2	5.0	µg/L	10.0		102		70-130	0.294	25		
1,2-Dibromoethane (EDB)	9.90	0.50	µg/L	10.0		99.0		70-130	2.35	25		
1,2-Dichlorobenzene	9.98	1.0	µg/L	10.0		99.8		70-130	0.301	25		
1,3-Dichlorobenzene	9.92	1.0	µg/L	10.0		99.2		70-130	4.05	25		
1,4-Dichlorobenzene	9.46	1.0	µg/L	10.0		94.6		70-130	0.317	25		
Dichlorodifluoromethane (Freon 12)	5.72	2.0	µg/L	10.0		57.2		40-160	1.04	25		†
1,1-Dichloroethane	9.68	1.0	µg/L	10.0		96.8		70-130	3.15	25		
1,2-Dichloroethane	8.63	1.0	µg/L	10.0		86.3		70-130	2.29	25		
1,1-Dichloroethylene	8.89	1.0	µg/L	10.0		88.9		70-130	4.08	25		
cis-1,2-Dichloroethylene	8.89	1.0	µg/L	10.0		88.9		70-130	1.56	25		
trans-1,2-Dichloroethylene	9.28	1.0	µg/L	10.0		92.8		70-130	1.85	25		
1,2-Dichloropropane	8.67	1.0	µg/L	10.0		86.7		70-130	2.62	25		
cis-1,3-Dichloropropene	9.19	0.50	µg/L	10.0		91.9		70-130	3.00	25		
trans-1,3-Dichloropropene	11.2	0.50	µg/L	10.0		112		70-130	0.989	25		
1,4-Dioxane	110	50	µg/L	100		110		40-130	3.02	50		† ‡
Ethylbenzene	10.3	1.0	µg/L	10.0		103		70-130	0.776	25		
2-Hexanone (MBK)	79.8	10	µg/L	100		79.8		70-160	2.81	25		†
Isopropylbenzene (Cumene)	10.8	1.0	µg/L	10.0		108		70-130	0.828	25		
Methyl Acetate	4.81	1.0	µg/L	10.0		**48.1**	*	70-130	7.10	25	L-04	
Methyl tert-Butyl Ether (MTBE)	10.2	1.0	µg/L	10.0		102		70-130	3.19	25		
Methyl Cyclohexane	8.88	1.0	µg/L	10.0		88.8		70-130	5.16	25		
Methylene Chloride	9.07	5.0	µg/L	10.0		90.7		70-130	2.61	25		
4-Methyl-2-pentanone (MIBK)	80.4	10	µg/L	100		80.4		70-160	2.39	25		†
Styrene	10.4	1.0	µg/L	10.0		104		70-130	1.62	25		
1,1,1,2-Tetrachloroethane	11.1	1.0	µg/L	10.0		111		70-130	5.84	25		
Tetrachloroethylene	10.4	1.0	µg/L	10.0		104		70-130	1.90	25		
Toluene	9.42	1.0	µg/L	10.0		94.2		70-130	2.62	25		
1,2,3-Trichlorobenzene	11.1	5.0	µg/L	10.0		111		70-130	18.7	25		
1,2,4-Trichlorobenzene	10.3	1.0	µg/L	10.0		103		70-130	5.71	25		
1,1,1-Trichloroethane	9.53	1.0	µg/L	10.0		95.3		70-130	4.81	25		
1,1,2-Trichloroethane	9.76	1.0	µg/L	10.0		97.6		70-130	0.617	25		

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

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177926 - SW-846 5030B										
LCS Dup (B177926-BSD1)				Prepared & Analyzed: 05/30/17						
Trichloroethylene	9.44	1.0	µg/L	10.0		94.4	70-130	7.35	25	
Trichlorofluoromethane (Freon 11)	8.03	2.0	µg/L	10.0		80.3	70-130	3.07	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.44	1.0	µg/L	10.0		84.4	70-130	3.26	25	
Vinyl Chloride	8.73	2.0	µg/L	10.0		87.3	40-160	4.37	25	†
m+p Xylene	20.2	2.0	µg/L	20.0		101	70-130	0.592	25	
o-Xylene	10.3	1.0	µg/L	10.0		103	70-130	0.00	25	
Surrogate: 1,2-Dichloroethane-d4	*23.2*		µg/L	25.0		92.8	70-130			
Surrogate: Toluene-d8	*24.3*		µg/L	25.0		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	*26.4*		µg/L	25.0		106	70-130			

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

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B179608 - SW-846 3546											
Blank (B179608-BLK1)				Prepared: 06/19/17 Analyzed: 06/20/17							
Aroclor-1016	ND	0.020	mg/Kg wet								R-05
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet								R-05
Aroclor-1221	ND	0.020	mg/Kg wet								
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet								
Aroclor-1232	ND	0.020	mg/Kg wet								
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet								
Aroclor-1242	ND	0.020	mg/Kg wet								
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet								
Aroclor-1248	ND	0.020	mg/Kg wet								
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet								
Aroclor-1254	ND	0.020	mg/Kg wet								
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet								
Aroclor-1260	ND	0.020	mg/Kg wet								R-05
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet								R-05
Aroclor-1262	ND	0.020	mg/Kg wet								
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet								
Aroclor-1268	ND	0.020	mg/Kg wet								
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet								
Surrogate: Decachlorobiphenyl	*0.187*		mg/Kg wet	0.200		93.4	30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.181*		mg/Kg wet	0.200		90.4	30-150				
Surrogate: Tetrachloro-m-xylene	*0.153*		mg/Kg wet	0.200		76.7	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.153*		mg/Kg wet	0.200		76.5	30-150				
LCS (B179608-BS1)				Prepared: 06/19/17 Analyzed: 06/20/17							
Aroclor-1016	0.20	0.020	mg/Kg wet	0.200		102	40-140				R-05
Aroclor-1016 [2C]	0.23	0.020	mg/Kg wet	0.200		115	40-140				R-05
Aroclor-1260	0.19	0.020	mg/Kg wet	0.200		97.4	40-140				R-05
Aroclor-1260 [2C]	0.21	0.020	mg/Kg wet	0.200		107	40-140				R-05
Surrogate: Decachlorobiphenyl	*0.225*		mg/Kg wet	0.200		113	30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.208*		mg/Kg wet	0.200		104	30-150				
Surrogate: Tetrachloro-m-xylene	*0.193*		mg/Kg wet	0.200		96.7	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.179*		mg/Kg wet	0.200		89.4	30-150				
LCS Dup (B179608-BSD1)				Prepared: 06/19/17 Analyzed: 06/20/17							
Aroclor-1016	0.15	0.020	mg/Kg wet	0.200		73.1	40-140	**33.2**	*	30	R-05
Aroclor-1016 [2C]	0.16	0.020	mg/Kg wet	0.200		80.5	40-140	**35.1**	*	30	R-05
Aroclor-1260	0.14	0.020	mg/Kg wet	0.200		69.9	40-140	**32.8**	*	30	R-05
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		76.3	40-140	**33.3**	*	30	R-05
Surrogate: Decachlorobiphenyl	*0.156*		mg/Kg wet	0.200		78.2	30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.161*		mg/Kg wet	0.200		80.5	30-150				
Surrogate: Tetrachloro-m-xylene	*0.147*		mg/Kg wet	0.200		73.4	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.149*		mg/Kg wet	0.200		74.6	30-150				

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

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177813 - % Solids										
Duplicate (B177813-DUP1)	**Source: 17E1252-01**			Prepared & Analyzed: 05/25/17						
% Solids	17.6		% Wt		19.2			8.70	20	
Batch B177820 - SW-846 9045C										
LCS (B177820-BS1)				Prepared & Analyzed: 05/25/17						
pH	5.98		pH Units	6.00		99.7	98.5-110			
Batch B177851 - SW-846 9014										
Blank (B177851-BLK1)				Prepared: 05/26/17 Analyzed: 05/30/17						
Reactive Cyanide	ND	0.40	mg/Kg							
LCS (B177851-BS1)				Prepared: 05/26/17 Analyzed: 05/30/17						
Reactive Cyanide	11	0.40	mg/Kg	10.0		106	85.9-110			
Batch B177900 - SW-846 9030A										
Blank (B177900-BLK1)				Prepared: 05/26/17 Analyzed: 05/30/17						
Reactive Sulfide	ND	2.0	mg/Kg							
LCS (B177900-BS1)				Prepared: 05/26/17 Analyzed: 05/30/17						
Reactive Sulfide	13	2.0	mg/Kg	14.8		89.2	64.5-120			

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

QUALITY CONTROL

TCLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177953 - SW-846 5030B										
Blank (B177953-BLK1)				Prepared & Analyzed: 05/30/17						
Benzene	ND	0.010	mg/L							
2-Butanone (MEK)	ND	0.20	mg/L							
Carbon Tetrachloride	ND	0.050	mg/L							
Chlorobenzene	ND	0.010	mg/L							
Chloroform	ND	0.020	mg/L							
1,4-Dichlorobenzene	ND	0.010	mg/L							
1,2-Dichloroethane	ND	0.010	mg/L							
1,1-Dichloroethylene	ND	0.010	mg/L							
Tetrachloroethylene	ND	0.010	mg/L							
Trichloroethylene	ND	0.010	mg/L							
Vinyl Chloride	ND	0.020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0224*		mg/L	0.0250		89.4	70-130			
Surrogate: Toluene-d8	*0.0253*		mg/L	0.0250		101	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0242*		mg/L	0.0250		96.6	70-130			
LCS (B177953-BS1)				Prepared & Analyzed: 05/30/17						
Benzene	0.0114	0.0010	mg/L	0.0100		114	70-130			
2-Butanone (MEK)	0.0838	0.020	mg/L	0.100		83.8	40-160			†
Carbon Tetrachloride	0.0111	0.0050	mg/L	0.0100		111	70-130			
Chlorobenzene	0.0102	0.0010	mg/L	0.0100		102	70-130			
Chloroform	0.0104	0.0020	mg/L	0.0100		104	70-130			
1,4-Dichlorobenzene	0.00938	0.0010	mg/L	0.0100		93.8	70-130			
1,2-Dichloroethane	0.00980	0.0010	mg/L	0.0100		98.0	70-130			
1,1-Dichloroethylene	0.00940	0.0010	mg/L	0.0100		94.0	70-130			
Tetrachloroethylene	0.0110	0.0010	mg/L	0.0100		110	70-130			
Trichloroethylene	0.0109	0.0010	mg/L	0.0100		109	70-130			
Vinyl Chloride	0.00892	0.0020	mg/L	0.0100		89.2	40-160			†
Surrogate: 1,2-Dichloroethane-d4	*0.0227*		mg/L	0.0250		90.8	70-130			
Surrogate: Toluene-d8	*0.0252*		mg/L	0.0250		101	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0249*		mg/L	0.0250		99.5	70-130			
LCS Dup (B177953-BSD1)				Prepared & Analyzed: 05/30/17						
Benzene	0.0110	0.0010	mg/L	0.0100		110	70-130	3.75	25	
2-Butanone (MEK)	0.0799	0.020	mg/L	0.100		79.9	40-160	4.84	25	†
Carbon Tetrachloride	0.0109	0.0050	mg/L	0.0100		109	70-130	2.36	25	
Chlorobenzene	0.0105	0.0010	mg/L	0.0100		105	70-130	3.19	25	
Chloroform	0.0101	0.0020	mg/L	0.0100		101	70-130	3.80	25	
1,4-Dichlorobenzene	0.00914	0.0010	mg/L	0.0100		91.4	70-130	2.59	25	
1,2-Dichloroethane	0.0100	0.0010	mg/L	0.0100		100	70-130	2.02	25	
1,1-Dichloroethylene	0.00930	0.0010	mg/L	0.0100		93.0	70-130	1.07	25	
Tetrachloroethylene	0.0113	0.0010	mg/L	0.0100		113	70-130	2.60	25	
Trichloroethylene	0.0107	0.0010	mg/L	0.0100		107	70-130	2.13	25	
Vinyl Chloride	0.00881	0.0020	mg/L	0.0100		88.1	40-160	1.24	25	†
Surrogate: 1,2-Dichloroethane-d4	*0.0220*		mg/L	0.0250		88.0	70-130			
Surrogate: Toluene-d8	*0.0257*		mg/L	0.0250		103	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0248*		mg/L	0.0250		99.1	70-130			

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

QUALITY CONTROL

TCLP - Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177897 - SW-846 3510C										
Blank (B177897-BLK1)				Prepared: 05/26/17 Analyzed: 05/30/17						
2,4-Dinitrotoluene	ND	0.050	mg/L							
Hexachlorobenzene	ND	0.050	mg/L							
Hexachlorobutadiene	ND	0.050	mg/L							
Hexachloroethane	ND	0.050	mg/L							
2-Methylphenol	ND	0.050	mg/L							
3/4-Methylphenol	ND	0.050	mg/L							
Nitrobenzene	ND	0.050	mg/L							
Pentachlorophenol	ND	0.050	mg/L							
Pyridine	ND	0.025	mg/L							
2,4,5-Trichlorophenol	ND	0.050	mg/L							
2,4,6-Trichlorophenol	ND	0.050	mg/L							
Surrogate: 2-Fluorophenol	*0.706*		mg/L	1.00		70.6	15-110			
Surrogate: Phenol-d6	*0.630*		mg/L	1.00		63.0	15-110			
Surrogate: Nitrobenzene-d5	*0.378*		mg/L	0.500		75.7	30-130			
Surrogate: 2-Fluorobiphenyl	*0.395*		mg/L	0.500		78.9	30-130			
Surrogate: 2,4,6-Tribromophenol	*0.670*		mg/L	1.00		67.0	15-110			
Surrogate: p-Terphenyl-d14	*0.398*		mg/L	0.500		79.6	30-130			
LCS (B177897-BS1)				Prepared: 05/26/17 Analyzed: 05/30/17						
2,4-Dinitrotoluene	0.185	0.050	mg/L	0.250		73.9	40-140			
Hexachlorobenzene	0.185	0.050	mg/L	0.250		74.0	40-140			
Hexachlorobutadiene	0.176	0.050	mg/L	0.250		70.4	40-140			
Hexachloroethane	0.171	0.050	mg/L	0.250		68.5	40-140			
2-Methylphenol	0.160	0.050	mg/L	0.250		64.1	30-130			
3/4-Methylphenol	0.164	0.050	mg/L	0.250		65.5	30-130			
Nitrobenzene	0.170	0.050	mg/L	0.250		68.1	40-140			
Pentachlorophenol	0.160	0.050	mg/L	0.250		64.0	30-130			
Pyridine	0.102	0.025	mg/L	0.250		41.0	10-140			†
2,4,5-Trichlorophenol	0.178	0.050	mg/L	0.250		71.3	30-130			
2,4,6-Trichlorophenol	0.183	0.050	mg/L	0.250		73.1	30-130			
Surrogate: 2-Fluorophenol	*0.498*		mg/L	1.00		49.8	15-110			
Surrogate: Phenol-d6	*0.353*		mg/L	1.00		35.3	15-110			
Surrogate: Nitrobenzene-d5	*0.355*		mg/L	0.500		71.0	30-130			
Surrogate: 2-Fluorobiphenyl	*0.385*		mg/L	0.500		77.0	30-130			
Surrogate: 2,4,6-Tribromophenol	*0.740*		mg/L	1.00		74.0	15-110			
Surrogate: p-Terphenyl-d14	*0.380*		mg/L	0.500		76.0	30-130			
LCS Dup (B177897-BSD1)				Prepared: 05/26/17 Analyzed: 05/30/17						
2,4-Dinitrotoluene	0.186	0.050	mg/L	0.250		74.3	40-140	0.594	20	
Hexachlorobenzene	0.185	0.050	mg/L	0.250		74.1	40-140	0.135	20	
Hexachlorobutadiene	0.179	0.050	mg/L	0.250		71.8	40-140	1.97	20	
Hexachloroethane	0.165	0.050	mg/L	0.250		66.1	40-140	3.51	50	‡
2-Methylphenol	0.154	0.050	mg/L	0.250		61.8	30-130	3.62	20	
3/4-Methylphenol	0.161	0.050	mg/L	0.250		64.3	30-130	1.76	20	
Nitrobenzene	0.169	0.050	mg/L	0.250		67.4	40-140	0.945	20	
Pentachlorophenol	0.178	0.050	mg/L	0.250		71.1	30-130	10.5	50	‡
Pyridine	0.0857	0.025	mg/L	0.250		34.3	10-140	17.8	50	† ‡
2,4,5-Trichlorophenol	0.179	0.050	mg/L	0.250		71.8	30-130	0.643	20	
2,4,6-Trichlorophenol	0.181	0.050	mg/L	0.250		72.6	30-130	0.741	50	‡
Surrogate: 2-Fluorophenol	*0.458*		mg/L	1.00		45.8	15-110			
Surrogate: Phenol-d6	*0.337*		mg/L	1.00		33.7	15-110			
Surrogate: Nitrobenzene-d5	*0.362*		mg/L	0.500		72.3	30-130			

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

QUALITY CONTROL

TCLP - Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177897 - SW-846 3510C										
LCS Dup (B177897-BSD1)				Prepared: 05/26/17 Analyzed: 05/30/17						
Surrogate: 2-Fluorobiphenyl	*0.387*		mg/L	0.500		77.5	30-130			
Surrogate: 2,4,6-Tribromophenol	*0.734*		mg/L	1.00		73.4	15-110			
Surrogate: p-Terphenyl-d14	*0.378*		mg/L	0.500		75.6	30-130			

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

QUALITY CONTROL

TCLP - Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177912 - SW-846 3510C										
Blank (B177912-BLK1)				Prepared: 05/27/17 Analyzed: 05/30/17						
gamma-BHC (Lindane)	ND	0.030	µg/L							
gamma-BHC (Lindane) [2C]	ND	0.030	µg/L							
Chlordane	ND	0.20	µg/L							
Chlordane [2C]	ND	0.20	µg/L							
Endrin	ND	0.080	µg/L							
Endrin [2C]	ND	0.080	µg/L							
Heptachlor	ND	0.050	µg/L							
Heptachlor [2C]	ND	0.050	µg/L							
Heptachlor Epoxide	ND	0.050	µg/L							
Heptachlor Epoxide [2C]	ND	0.050	µg/L							
Methoxychlor	ND	0.50	µg/L							
Methoxychlor [2C]	ND	0.50	µg/L							
Toxaphene	ND	1.0	µg/L							
Toxaphene [2C]	ND	1.0	µg/L							
Surrogate: Decachlorobiphenyl	*1.70*		µg/L	2.00		85.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.73*		µg/L	2.00		86.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.57*		µg/L	2.00		78.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.35*		µg/L	2.00		67.5	30-150			
LCS (B177912-BS1)				Prepared: 05/27/17 Analyzed: 05/30/17						
gamma-BHC (Lindane)	0.96	0.030	µg/L	1.00		95.6	40-140			
gamma-BHC (Lindane) [2C]	0.83	0.030	µg/L	1.00		83.0	40-140			
Endrin	0.98	0.080	µg/L	1.00		98.4	40-140			
Endrin [2C]	1.0	0.080	µg/L	1.00		102	40-140			
Heptachlor	0.69	0.050	µg/L	1.00		69.0	40-140			
Heptachlor [2C]	0.87	0.050	µg/L	1.00		86.5	40-140			
Heptachlor Epoxide	0.91	0.050	µg/L	1.00		91.2	40-140			
Heptachlor Epoxide [2C]	0.89	0.050	µg/L	1.00		88.7	40-140			
Methoxychlor	0.96	0.50	µg/L	1.00		96.0	40-140			
Methoxychlor [2C]	1.0	0.50	µg/L	1.00		105	40-140			
Surrogate: Decachlorobiphenyl	*1.97*		µg/L	2.00		98.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.97*		µg/L	2.00		98.5	30-150			
Surrogate: Tetrachloro-m-xylene	*1.83*		µg/L	2.00		91.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.51*		µg/L	2.00		75.5	30-150			
LCS Dup (B177912-BSD1)				Prepared: 05/27/17 Analyzed: 05/30/17						
gamma-BHC (Lindane)	0.91	0.030	µg/L	1.00		90.9	40-140	5.02	20	
gamma-BHC (Lindane) [2C]	0.84	0.030	µg/L	1.00		84.2	40-140	1.49	20	
Endrin	0.93	0.080	µg/L	1.00		93.4	40-140	5.26	20	
Endrin [2C]	0.98	0.080	µg/L	1.00		97.8	40-140	3.87	20	
Heptachlor	0.67	0.050	µg/L	1.00		67.1	40-140	2.78	20	
Heptachlor [2C]	0.87	0.050	µg/L	1.00		86.8	40-140	0.367	20	
Heptachlor Epoxide	0.86	0.050	µg/L	1.00		85.8	40-140	6.17	20	
Heptachlor Epoxide [2C]	0.86	0.050	µg/L	1.00		85.7	40-140	3.47	20	
Methoxychlor	0.91	0.50	µg/L	1.00		91.0	40-140	5.32	20	
Methoxychlor [2C]	0.99	0.50	µg/L	1.00		99.0	40-140	5.56	20	
Surrogate: Decachlorobiphenyl	*1.87*		µg/L	2.00		93.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.87*		µg/L	2.00		93.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.73*		µg/L	2.00		86.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.52*		µg/L	2.00		76.0	30-150			

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

QUALITY CONTROL

TCLP - Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177912 - SW-846 3510C										
Matrix Spike (B177912-MS1)	**Source: 17E1252-01**			Prepared: 05/27/17 Analyzed: 05/30/17						
gamma-BHC (Lindane)	1.1	0.030	µg/L	1.00	0.23	84.1	0-200			
gamma-BHC (Lindane) [2C]	0.80	0.030	µg/L	1.00	0.087	70.8	0-200			
Endrin	0.78	0.080	µg/L	1.00	ND	78.3	0-200			
Endrin [2C]	0.82	0.080	µg/L	1.00	ND	82.2	0-200			
Heptachlor	0.90	0.050	µg/L	1.00	ND	89.7	0-200			
Heptachlor [2C]	0.66	0.050	µg/L	1.00	ND	65.5	0-200			
Heptachlor Epoxide	0.67	0.050	µg/L	1.00	ND	67.2	0-200			
Heptachlor Epoxide [2C]	0.80	0.050	µg/L	1.00	ND	79.8	0-200			
Methoxychlor	0.76	0.50	µg/L	1.00	ND	76.0	0-200			
Methoxychlor [2C]	0.85	0.50	µg/L	1.00	ND	85.4	0-200			
Surrogate: Decachlorobiphenyl	*0.990*		µg/L	2.00		49.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.04*		µg/L	2.00		52.2	30-150			
Surrogate: Tetrachloro-m-xylene	*1.24*		µg/L	2.00		62.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.12*		µg/L	2.00		56.0	30-150			

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

QUALITY CONTROL

TCLP - Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177913 - SW-846 3510C										
Blank (B177913-BLK1)				Prepared: 05/27/17 Analyzed: 05/30/17						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*2.07*		µg/L	2.00		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.92*		µg/L	2.00		95.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.82*		µg/L	2.00		91.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.61*		µg/L	2.00		80.3	30-150			
LCS (B177913-BS1)				Prepared: 05/27/17 Analyzed: 05/30/17						
Aroclor-1016	0.57	0.20	µg/L	0.500		113	40-140			
Aroclor-1016 [2C]	0.61	0.20	µg/L	0.500		121	40-140			
Aroclor-1260	0.49	0.20	µg/L	0.500		98.9	40-140			
Aroclor-1260 [2C]	0.52	0.20	µg/L	0.500		103	40-140			
Surrogate: Decachlorobiphenyl	*2.12*		µg/L	2.00		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.95*		µg/L	2.00		97.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.91*		µg/L	2.00		95.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.74*		µg/L	2.00		86.9	30-150			
LCS Dup (B177913-BSD1)				Prepared: 05/27/17 Analyzed: 05/30/17						
Aroclor-1016	0.58	0.20	µg/L	0.500		115	40-140	1.73	20	
Aroclor-1016 [2C]	0.60	0.20	µg/L	0.500		121	40-140	0.512	20	
Aroclor-1260	0.51	0.20	µg/L	0.500		102	40-140	3.08	20	
Aroclor-1260 [2C]	0.52	0.20	µg/L	0.500		103	40-140	0.0271	20	
Surrogate: Decachlorobiphenyl	*2.09*		µg/L	2.00		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.95*		µg/L	2.00		97.3	30-150			
Surrogate: Tetrachloro-m-xylene	*1.88*		µg/L	2.00		93.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.71*		µg/L	2.00		85.3	30-150			

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

QUALITY CONTROL

TCLP - Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B177913 - SW-846 3510C											
Matrix Spike (B177913-MS1)	**Source: 17E1252-01**			Prepared: 05/27/17 Analyzed: 05/30/17							
Aroclor-1016	18	0.20	µg/L	0.500	25	**-1440**	*	40-140			MS-19
Aroclor-1016 [2C]	19	0.20	µg/L	0.500	26	**-1390**	*	40-140			MS-19
Aroclor-1260	0.35	0.20	µg/L	0.500	ND	69.3		40-140			
Aroclor-1260 [2C]	0.34	0.20	µg/L	0.500	ND	68.8		40-140			
Surrogate: Decachlorobiphenyl	*1.01*		µg/L	2.00		50.7		30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.18*		µg/L	2.00		59.0		30-150			
Surrogate: Tetrachloro-m-xylene	*1.31*		µg/L	2.00		65.3		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.27*		µg/L	2.00		63.6		30-150			

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

QUALITY CONTROL

TCLP - Herbicides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B177935 - SW-846 3510C										
Blank (B177935-BLK1)				Prepared: 05/30/17 Analyzed: 05/31/17						
2,4-D	ND	0.050	mg/L							
2,4-D [2C]	ND	0.050	mg/L							
2,4,5-TP (Silvex)	ND	0.0050	mg/L							
2,4,5-TP (Silvex) [2C]	ND	0.0050	mg/L							
Surrogate: 2,4-Dichlorophenylacetic acid	*0.163*		mg/L	0.200		81.7	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*0.163*		mg/L	0.200		81.4	30-150			
LCS (B177935-BS1)				Prepared: 05/30/17 Analyzed: 05/31/17						
2,4-D	0.210	0.050	mg/L	0.250		84.0	40-140			
2,4-D [2C]	0.206	0.050	mg/L	0.250		82.4	40-140			
2,4,5-TP (Silvex)	0.0226	0.0050	mg/L	0.0250		90.4	40-140			
2,4,5-TP (Silvex) [2C]	0.0220	0.0050	mg/L	0.0250		88.2	40-140			
Surrogate: 2,4-Dichlorophenylacetic acid	*0.183*		mg/L	0.200		91.3	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*0.183*		mg/L	0.200		91.5	30-150			
LCS Dup (B177935-BSD1)				Prepared: 05/30/17 Analyzed: 05/31/17						
2,4-D	0.213	0.050	mg/L	0.250		85.1	40-140	1.34	20	
2,4-D [2C]	0.208	0.050	mg/L	0.250		83.0	40-140	0.794	20	
2,4,5-TP (Silvex)	0.0231	0.0050	mg/L	0.0250		92.2	40-140	1.97	20	
2,4,5-TP (Silvex) [2C]	0.0227	0.0050	mg/L	0.0250		90.9	40-140	3.01	20	
Surrogate: 2,4-Dichlorophenylacetic acid	*0.181*		mg/L	0.200		90.4	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*0.180*		mg/L	0.200		89.9	30-150			

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

QUALITY CONTROL

TCLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B177898 - SW-846 3010A											
Blank (B177898-BLK1)				Prepared: 05/26/17 Analyzed: 05/30/17							
Arsenic	ND	0.010	mg/L								
Barium	ND	0.050	mg/L								
Cadmium	ND	0.0040	mg/L								
Chromium	ND	0.010	mg/L								
Lead	ND	0.010	mg/L								
Selenium	ND	0.050	mg/L								
Silver	ND	0.0050	mg/L								
LCS (B177898-BS1)				Prepared: 05/26/17 Analyzed: 05/31/17							
Arsenic	0.574	0.010	mg/L	0.500		115		80-120			
Barium	0.506	0.050	mg/L	0.500		101		80-120			
Cadmium	0.554	0.0040	mg/L	0.500		111		80-120			
Chromium	0.500	0.010	mg/L	0.500		99.9		80-120			
Lead	0.502	0.010	mg/L	0.500		100		80-120			
Selenium	0.604	0.050	mg/L	0.500		**121**	*	80-120			L-07
Silver	0.531	0.0050	mg/L	0.500		106		80-120			
LCS Dup (B177898-BSD1)				Prepared: 05/26/17 Analyzed: 05/31/17							
Arsenic	0.550	0.010	mg/L	0.500		110		80-120	4.25	20	
Barium	0.494	0.050	mg/L	0.500		98.9		80-120	2.37	20	
Cadmium	0.544	0.0040	mg/L	0.500		109		80-120	1.83	20	
Chromium	0.491	0.010	mg/L	0.500		98.3		80-120	1.68	20	
Lead	0.485	0.010	mg/L	0.500		97.0		80-120	3.47	20	
Selenium	0.577	0.050	mg/L	0.500		115		80-120	4.55	20	
Silver	0.527	0.0050	mg/L	0.500		105		80-120	0.924	20	
Batch B178035 - SW-846 7470A Prep											
Blank (B178035-BLK1)				Prepared: 05/31/17 Analyzed: 06/01/17							
Mercury	ND	0.00010	mg/L								
LCS (B178035-BS1)				Prepared: 05/31/17 Analyzed: 06/01/17							
Mercury	0.00184	0.00010	mg/L	0.00200		92.0		80-120			
LCS Dup (B178035-BSD1)				Prepared: 05/31/17 Analyzed: 06/01/17							
Mercury	0.00186	0.00010	mg/L	0.00200		93.2		80-120	1.25	20	

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

BREAKDOWN REPORT

Lab Sample ID: **S014279-PEM1** **Analyzed:** **05/30/2017**

Column Number: **1**

Analyte	% Breakdown
4,4'-DDT [1]	0.49
Endrin [1]	2.56

Column Number: **2**

Analyte	% Breakdown
4,4'-DDT [2]	0.61
Endrin [2]	2.79

BREAKDOWN REPORT

Lab Sample ID: **S014279-PEM2** **Analyzed:** **05/30/2017**

Column Number: **1**

Analyte	% Breakdown
4,4'-DDT [1]	0.62
Endrin [1]	3.36

Column Number: **2**

Analyte	% Breakdown
4,4'-DDT [2]	0.77
Endrin [2]	3.68

BREAKDOWN REPORT

Lab Sample ID: **S014279-PEM3** **Analyzed:** **05/31/2017**

Column Number: **1**

Analyte	% Breakdown
4,4'-DDT [1]	0.97
Endrin [1]	2.47

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

BREAKDOWN REPORT

Lab Sample ID:	**S014279-PEM3**	**Analyzed:**	**05/31/2017**

Column Number: **2**

Analyte	% Breakdown
4,4'-DDT [2]	1.24
Endrin [2]	2.76

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Filter Sludge

Lab Sample ID: 17E1252-01 Date(s) Analyzed 05/31/2017 05/31/2017

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	25	
	1	0.000	0.000	0.000	62	
	2	0.000	0.000	0.000	87	33.6
	2	0.000	0.000	0.000	26	3.9
gamma-BHC (Lindane)	1	5.671	0.000	0.000	0.23	
	2	5.685	0.000	0.000	0.087	90.2

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B177912-BS1 Date(s) Analyzed 05/30/2017 05/30/2017

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Endrin	1	7.244	0.000	0.000	0.98	
	2	7.296	0.000	0.000	1.0	2.0
gamma-BHC (Lindane)	1	5.671	0.000	0.000	0.96	
	2	5.683	0.000	0.000	0.83	14.5
Heptachlor	1	5.979	0.000	0.000	0.69	
	2	5.965	0.000	0.000	0.87	23.1
Heptachlor Epoxide	1	6.609	0.000	0.000	0.91	
	2	6.581	0.000	0.000	0.89	2.2
Methoxychlor	1	7.887	0.000	0.000	0.96	
	2	8.169	0.000	0.000	1.0	4.1

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B177912-BSD1 Date(s) Analyzed 05/30/2017 05/30/2017

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Endrin	1	7.244	0.000	0.000	0.93	
	2	7.297	0.000	0.000	0.98	5.2
gamma-BHC (Lindane)	1	5.671	0.000	0.000	0.91	
	2	5.684	0.000	0.000	0.84	8.0
Heptachlor	1	5.979	0.000	0.000	0.67	
	2	5.966	0.000	0.000	0.87	26.0
Heptachlor Epoxide	1	6.609	0.000	0.000	0.86	
	2	6.583	0.000	0.000	0.86	0.0
Methoxychlor	1	7.889	0.000	0.000	0.91	
	2	8.169	0.000	0.000	0.99	8.4

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike

Lab Sample ID: B177912-MS1 Date(s) Analyzed 05/30/2017 05/30/2017

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Endrin	1	7.244	0.000	0.000	0.78	
	2	7.297	0.000	0.000	0.82	5.0
gamma-BHC (Lindane)	1	5.671	0.000	0.000	1.1	
	2	5.684	0.000	0.000	0.80	31.6
Heptachlor	1	5.979	0.000	0.000	0.90	
	2	5.966	0.000	0.000	0.66	30.8
Heptachlor Epoxide	1	6.609	0.000	0.000	0.67	
	2	6.582	0.000	0.000	0.80	17.7
Methoxychlor	1	7.888	0.000	0.000	0.76	
	2	8.169	0.000	0.000	0.85	11.2

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B177913-BS1 Date(s) Analyzed 05/30/2017 05/30/2017

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.57	
	2	0.000	0.000	0.000	0.61	6.8
Aroclor-1260	1	0.000	0.000	0.000	0.49	
	2	0.000	0.000	0.000	0.52	3.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B177913-BSD1 Date(s) Analyzed 05/30/2017 05/30/2017

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.58	
	2	0.000	0.000	0.000	0.60	3.4
Aroclor-1260	1	0.000	0.000	0.000	0.51	
	2	0.000	0.000	0.000	0.52	1.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike

Lab Sample ID: B177913-MS1 Date(s) Analyzed 05/30/2017 05/30/2017

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	18	
	2	0.000	0.000	0.000	19	5.4
Aroclor-1260	1	0.000	0.000	0.000	0.35	
	2	0.000	0.000	0.000	0.34	2.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS

Lab Sample ID: B177935-BS1 Date(s) Analyzed 05/31/2017 05/31/2017

Instrument ID (1): ECD 8 Instrument ID (2): ECD 8

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4,5-TP (Silvex)	1	14.494	0.000	0.000	0.0226	
	2	14.017	0.000	0.000	0.0220	4.4
2,4-D	1	12.714	0.000	0.000	0.210	
	2	12.354	0.000	0.000	0.206	1.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS Dup

Lab Sample ID: B177935-BSD1 Date(s) Analyzed 05/31/2017 05/31/2017

Instrument ID (1): ECD 8 Instrument ID (2): ECD 8

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4,5-TP (Silvex)	1	14.494	0.000	0.000	0.0231	
	2	14.016	0.000	0.000	0.0227	1.3
2,4-D	1	12.714	0.000	0.000	0.213	
	2	12.354	0.000	0.000	0.208	1.0

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B179608-BS1 Date(s) Analyzed 06/20/2017 06/20/2017

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.20	
	2	0.000	0.000	0.000	0.23	14.0
Aroclor-1260	1	0.000	0.000	0.000	0.19	
	2	0.000	0.000	0.000	0.21	4.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B179608-BSD1 Date(s) Analyzed 06/20/2017 06/20/2017

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.16	6.5
Aroclor-1260	1	0.000	0.000	0.000	0.14	
	2	0.000	0.000	0.000	0.15	6.9

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
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant 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.
DL-03	Elevated reporting limit due to matrix.
H-01	Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
P-02	Sample RPD between primary and confirmatory analysis exceeded 40%. Per EPA method 8000, the lower value was reported due to obvious chromatographic interference on the column with the higher result.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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
SW-846 1030 in Soil	
Ignitability	NY,NH,CT,NC,ME,VA
SW-846 6010C-D in Water	
Arsenic	NY,CT,NC,ME,NH,VA
Barium	NY,CT,ME,NC,NH,VA
Cadmium	NY,CT,ME,NC,NH,VA
Chromium	NY,CT,ME,NC,NH,VA
Lead	NY,CT,ME,NC,NH,VA
Selenium	CT,ME,NC,NH,NY,VA
Silver	CT,ME,NC,NH,NY,VA
SW-846 7470A in Water	
Mercury	CT,ME,NC,NH,NY,VA
SW-846 8081B in Water	
gamma-BHC (Lindane)	CT,ME,NC,NH,NY,VA
gamma-BHC (Lindane) [2C]	CT,ME,NC,NH,NY,VA
Chlordane	CT,ME,NC,NH,NY,VA
Chlordane [2C]	CT,ME,NC,NH,NY,VA
Endrin	CT,ME,NC,NH,NY,VA
Endrin [2C]	CT,ME,NC,NH,NY,VA
Heptachlor	CT,ME,NC,NH,NY,VA
Heptachlor [2C]	CT,ME,NC,NH,NY,VA
Heptachlor Epoxide	CT,ME,NC,NH,NY,VA
Heptachlor Epoxide [2C]	CT,ME,NC,NH,NY,VA
Hexachlorobenzene	NC
Methoxychlor	CT,ME,NC,NH,NY,VA
Methoxychlor [2C]	CT,ME,NC,NH,NY,VA
Toxaphene	CT,ME,NC,NH,NY,VA
Toxaphene [2C]	CT,ME,NC,NH,NY,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA

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
SW-846 8082A in Soil	
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
SW-846 8082A in Water	
Aroclor-1016	CT,NY,ME,NC,NH,VA
Aroclor-1016 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1221	CT,NY,ME,NC,NH,VA
Aroclor-1221 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1232	CT,NY,ME,NC,NH,VA
Aroclor-1232 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1242	CT,NY,ME,NC,NH,VA
Aroclor-1242 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1248	CT,NY,ME,NC,NH,VA
Aroclor-1248 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1254	CT,NY,ME,NC,NH,VA
Aroclor-1254 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1260	CT,NY,ME,NC,NH,VA
Aroclor-1260 [2C]	CT,NY,ME,NC,NH,VA
Aroclor-1262	NY,VA
Aroclor-1262 [2C]	NY,VA
Aroclor-1268	NY,VA
Aroclor-1268 [2C]	NY,VA
SW-846 8260C in Soil	
Acetone	ME,NY,VA
Benzene	ME,NY,CT,NC,VA
Bromochloromethane	ME,NY,VA
Bromodichloromethane	ME,NY,VA
Bromoform	ME,NY,VA
Bromomethane	ME,NY,VA
2-Butanone (MEK)	ME,NY,CT,NC,VA
Carbon Disulfide	ME,VA
Carbon Tetrachloride	ME,NY,CT,NC,VA
Chlorobenzene	ME,NY,CT,NC,VA
Chlorodibromomethane	ME,NY,VA
Chloroethane	ME,NY,VA
Chloroform	ME,NY,CT,NC,VA
1,2-Dichlorobenzene	ME,NY,VA
1,3-Dichlorobenzene	ME,NY,VA
1,4-Dichlorobenzene	ME,NY,CT,NC,VA
Dichlorodifluoromethane (Freon 12)	ME,NY,VA
1,1-Dichloroethane	ME,NY,VA
1,2-Dichloroethane	ME,NY,CT,NC,VA
1,1-Dichloroethylene	ME,NY,CT,NC,VA
cis-1,2-Dichloroethylene	ME,NY,VA
trans-1,2-Dichloroethylene	ME,NY,VA
1,2-Dichloropropane	ME,NY,VA
cis-1,3-Dichloropropene	ME,NY,VA
trans-1,3-Dichloropropene	ME,NY,VA

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
SW-846 8260C in Soil	
Ethylbenzene	ME,NY,VA
Hexachlorobutadiene	ME,NY,VA
2-Hexanone (MBK)	ME,NY,VA
Isopropylbenzene (Cumene)	ME,NY,VA
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methylene Chloride	ME,NY,VA
4-Methyl-2-pentanone (MIBK)	NY,VA
Styrene	ME,NY,VA
1,1,1,2-Tetrachloroethane	ME,NY,VA
Tetrachloroethylene	ME,NY,CT,NC,VA
Toluene	ME,NY,VA
1,2,4-Trichlorobenzene	ME,NY,VA
1,1,1-Trichloroethane	ME,NY,VA
1,1,2-Trichloroethane	ME,NY,VA
Trichloroethylene	ME,NY,CT,NC,VA
Trichlorofluoromethane (Freon 11)	NY,VA
Vinyl Chloride	ME,NY,CT,NC,VA
m+p Xylene	ME,VA
o-Xylene	ME,VA
SW-846 8260C in Water	
Acetone	CT,NY,ME,NH,VA
Acetone	ME,NY,VA
Benzene	ME,NY,CT,NC,VA
Benzene	CT,NY,ME,NH,VA
Bromochloromethane	NY,ME,NH,VA
Bromochloromethane	ME,NY,VA
Bromodichloromethane	ME,NY,VA
Bromodichloromethane	CT,NY,ME,NH,VA
Bromoform	ME,NY,VA
Bromoform	CT,NY,ME,NH,VA
Bromomethane	ME,NY,VA
Bromomethane	CT,NY,ME,NH,VA
2-Butanone (MEK)	CT,NY,ME,NH,VA
2-Butanone (MEK)	ME,NY,CT,NC,VA
Carbon Disulfide	CT,NY,ME,NH,VA
Carbon Disulfide	ME,NY,VA
Carbon Tetrachloride	CT,NY,ME,NH,VA
Carbon Tetrachloride	ME,NY,CT,NC,VA
Chlorobenzene	CT,NY,ME,NH,VA
Chlorobenzene	ME,NY,CT,NC,VA
Chlorodibromomethane	CT,NY,ME,NH,VA
Chlorodibromomethane	ME,NY,VA
Chloroethane	ME,NY,VA
Chloroethane	CT,NY,ME,NH,VA
Chloroform	ME,NY,CT,NC,VA
Chloroform	CT,NY,ME,NH,VA

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
SW-846 8260C in Water	
Cyclohexane	NY
1,2-Dichlorobenzene	ME,NY,VA
1,2-Dichlorobenzene	CT,NY,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,ME,NH,VA
1,3-Dichlorobenzene	ME,NY,VA
1,4-Dichlorobenzene	ME,NY,CT,NC,VA
1,4-Dichlorobenzene	CT,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	ME,NY,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH,VA
1,1-Dichloroethane	ME,NY,VA
1,1-Dichloroethane	CT,NY,ME,NH,VA
1,2-Dichloroethane	CT,NY,ME,NH,VA
1,2-Dichloroethane	ME,NY,CT,NC,VA
1,1-Dichloroethylene	CT,NY,ME,NH,VA
1,1-Dichloroethylene	ME,NY,CT,NC,VA
cis-1,2-Dichloroethylene	NY,ME
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,NY,ME,NH,VA
trans-1,2-Dichloroethylene	ME,NY,VA
1,2-Dichloropropane	ME,NY,VA
1,2-Dichloropropane	CT,NY,ME,NH,VA
cis-1,3-Dichloropropene	CT,NY,ME,NH,VA
cis-1,3-Dichloropropene	ME,NY,VA
trans-1,3-Dichloropropene	ME,NY,VA
trans-1,3-Dichloropropene	CT,NY,ME,NH,VA
1,4-Dioxane	NY
Ethylbenzene	ME,NY,VA
Ethylbenzene	CT,NY,ME,NH,VA
Hexachlorobutadiene	CT,NY,ME,NH,VA
Hexachlorobutadiene	ME,NY,VA
2-Hexanone (MBK)	ME,NY,VA
2-Hexanone (MBK)	CT,NY,ME,NH,VA
Isopropylbenzene (Cumene)	ME,NY,VA
Isopropylbenzene (Cumene)	NY,ME,VA
Methyl Acetate	NY
Methyl tert-Butyl Ether (MTBE)	ME,NY,VA
Methyl tert-Butyl Ether (MTBE)	CT,NY,ME,NH,VA
Methyl Cyclohexane	NY
Methylene Chloride	ME,NY,VA
Methylene Chloride	CT,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	ME,NY,VA
4-Methyl-2-pentanone (MIBK)	CT,NY,ME,NH,VA
Styrene	ME,NY,VA
Styrene	CT,NY,ME,NH,VA
1,1,1,2-Tetrachloroethane	ME,NY,VA
1,1,1,2-Tetrachloroethane	CT,NY,ME,NH,VA
Tetrachloroethylene	ME,NY,CT,NC,VA

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
SW-846 8260C in Water	
Tetrachloroethylene	CT,NY,ME,NH,VA
Toluene	ME,NY,VA
Toluene	CT,NY,ME,NH,VA
1,2,3-Trichlorobenzene	ME,NY,VA
1,2,3-Trichlorobenzene	NY,ME,NH,VA
1,2,4-Trichlorobenzene	ME,NY,VA
1,2,4-Trichlorobenzene	CT,NY,ME,NH,VA
1,1,1-Trichloroethane	ME,NY,VA
1,1,1-Trichloroethane	CT,NY,ME,NH,VA
1,1,2-Trichloroethane	ME,NY,VA
1,1,2-Trichloroethane	CT,NY,ME,NH,VA
Trichloroethylene	ME,NY,CT,NC,VA
Trichloroethylene	CT,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	ME,NY,VA
Trichlorofluoromethane (Freon 11)	CT,NY,ME,NH,VA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY,VA
Vinyl Chloride	CT,NY,ME,NH,VA
Vinyl Chloride	ME,NY,CT,NC,VA
m+p Xylene	CT,ME,NH,VA
m+p Xylene	ME,VA
o-Xylene	CT,ME,NH,VA
o-Xylene	ME,VA
Xylenes (total)	NY
SW-846 8270D in Water	
1,2-Dichlorobenzene	ME,NC,NH,NY,VA
1,3-Dichlorobenzene	ME,NC,NH,NY,VA
1,4-Dichlorobenzene	ME,NC,NH,NY,VA
2,4-Dinitrotoluene	ME,NC,NH,CT,NY,VA
Hexachlorobenzene	ME,NC,NH,CT,NY,VA
Hexachlorobutadiene	ME,NC,NH,CT,NY,VA
Hexachloroethane	ME,NC,NH,CT,NY,VA
2-Methylphenol	ME,NC,NH,CT
3/4-Methylphenol	ME,NC,NH,CT
Nitrobenzene	ME,NC,NH,CT,NY,VA
Pentachlorophenol	ME,NC,NH,CT,NY,VA
Pyridine	ME,NC,NH,CT,NY,VA
1,2,4-Trichlorobenzene	ME,NC,NH,NY,VA
2,4,5-Trichlorophenol	ME,NC,NH,CT,NY,VA
2,4,6-Trichlorophenol	ME,NC,NH,CT,NY,VA
2-Fluorophenol	NC

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2017
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018

CHAIN OF CUSTODY RECORD

NEW YORK STATE

17E1252

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Company Name: ARCADIS
Address: 855 Route 146 Suite 210 CLIFTON PARK, NY 12065
Attention: TODD CARIGNAN
Project Location: FORT EDWARD
Sampled By: J. MULLINS

Telephone: 518-250-7308
Project # 00266434.0000
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ✓ EMAIL ✓ WEBSITE
Fax #
Email: TODD.CARIGNAN@ARCADIS.COM
Format: PDF ✓ EXCEL ✓ GIS ○
○ OTHER
○ "Enhanced Data Package"

○ Project Proposal Provided? (for billing purposes)

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	TCLP PCBs	TCLP SVOCs	TCLP Pesticides/Herbicides	Ignitability/Reactivity	TCLP RCRA 8 Metals	TCLP VOCs	% Solids/pH						# of Containers	** Preservation	***Container Code
1	FILTER SLUDGE	5/24/17 1650	5/24/17 1650		✓			1	1	1	1	1	1	1						1	—	A
2	TRIP BLANK																			1	—	A
																				1	—	A
																				1	—	A
																				1	—	A
																				1	—	A
																				1	—	A
																				1	—	A
																				1	—	A
																				1	—	A

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

****Preservation**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:	Relinquished by:	Date/Time:
	5/24/17 1828		5-25-17 1445
Received by: (signature)	Date/Time:	Received by:	Date/Time:
	5-25-17 8:15		5/25/17 1445
Relinquished by: (signature)	Date/Time:	Relinquished by:	Date/Time:
	5-25-17 1300		
Received by: (signature)	Date/Time: 5-25-17 1400	Received by:	Date/Time:

Turnaround †
☐ 5-Day
☐ 7 Day
☑ 10-Day or ___
RUSH †
24 hr ✓ 48 hr ○
72 hr ○ 4 day ○
† Require lab approval

Program Information/Regulatory
○ NY TOGS ○ NY Restricted Use ○ NY Part 375
○ AWQ STDS ○ NY Unrestricted Use ○ NY CP-51
○ NYC Sewer Discharge ○ Other:
○ Part 360 GW (Landfill)

Deliverables
○ ASP-A ○ Equis (1 file) ○ Other:
○ ASP-B ○ Equis (4 file)

TURNAROUND TIME (business days) 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. PLEASE BE CAREFUL TO NOT CONTAMINATE THIS DOCUMENT

Table of Contents

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

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Arcadis **RECEIVED BY:** JM **DATE:** 5/25/17

1) **Was the chain(s) of custody relinquished and signed?** **Yes** ✓ **No** ____ **No COC Incl.**

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) **How were the samples received:**
On Ice ✓ Direct from Sampling ____ Ambient ____ In Cooler(s) ✓

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** ✓ **No** ____ **N/A** ____

Temperature °C by Temp blank ____ # Temperature °C by Temp gun 3.9 # 2

5) **Are there Dissolved samples for the lab to filter?** **Yes** ____ **No** ✓
Who was notified ____ Date ____ Time ____

6) **Are there any RUSH or SHORT HOLDING TIME samples?** **Yes** ✓ **No** ____
Who was notified Mac Date 5/25/17 Time 1500

7) **Location where samples are stored:** Login

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

8) **Do all samples have the proper Acid pH:** **Yes** ____ **No** ____ **N/A** ✓

9) **Do all samples have the proper Base pH:** **Yes** ____ **No** ____ **N/A** ✓

10) **Was the PC notified of any discrepancies with the CoC vs the samples:** Yes ____ **N/A** ✓

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		16 oz amber	
500 mL Amber		8 oz amber/clear jar	7
250 mL Amber (8oz amber)		4 oz amber/clear jar	
1 Liter Plastic		2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic		SOC Kit	
40 mL Vial - type listed below	2	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

40 mL vials: # HCl 2 # Methanol ____ **Time and Date Frozen:**
Bisulfate ____ # DI Water ____
Thiosulfate ____ Unpreserved ____

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.	N/A	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
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.	N/A	
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.	T	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	T	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

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

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** JM **Date/Time:** 5/25/17 1445