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ENVIRONMENT

Mrs. Amy Hadiaris
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Subject:
Data Collected from Monitoring Wells Located along Mississippi River
Ford Twin Cities Assembly Plant, St. Paul, Minnesota
MPCA VIC Project Number VP23530
MPCA PBP Project Number PB3682

Date:
September 2, 2014

Contact:
Angharad Pagnon

Phone:
612.373.0223

Email:
apagnon@arcadis-us.com

Our ref:
DE000372.0004

Dear Mrs. Hadiaris:

ARCADIS U.S., Inc. (ARCADIS), on behalf of Ford Motor Company (Ford), has prepared this letter report to present a summary of groundwater analytical results acquired during the August 6 and 7, 2014 sampling of monitoring wells, associated with the Twin Cities Assembly Plant (TCAP) in St. Paul, Minnesota, located along the Mississippi River (Figure 1) in response to the Mississippi River flooding in June 2014.

All monitoring well samples were collected using low-flow sampling techniques and submitted to TestAmerica in North Canton, Ohio for analysis of:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260, and
- Target Analyte List (TAL) metals, dissolved, by USEPA Method 6010.

In addition, the AMW-07 groundwater sample was analyzed for Polyaromatic hydrocarbons (PAHs) by USEPA Method 8270.

Attached Documents

Table 1 provides a summary of water level elevations from gauging the groundwater monitoring wells, if accessible, located along the Mississippi River. Results are inclusive of the past two months of gauging.

Table 2 provides a summary of groundwater analytical results for all constituents, and illustrates Tier II Surface Water Standards for Class 2B exceedances. Results are inclusive of July and August 2014 results.

Figure 1 illustrates the monitoring well locations included in the monthly groundwater sampling events.

Attachment 1 provides the groundwater analytical lab report from the August sampling event.

The next sampling event is anticipated for September 3, 2014.

Conclusion

We appreciate your assistance with this project. If you have questions or need additional information, please call Angharad Pagnon of ARCADIS at your convenience.

Sincerely,

Angharad Pagnon
Project Environmental Specialist

Copies:
Mr. Charles Pinter, Ford Motor Company, Dearborn, Michigan
Mr. John Meyers, Ford Twin Cities Assembly Plant, St. Paul, Minnesota

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Tables

Table 1. **Area C Groundwater Elevation Data**
Twin Cities Assembly Plant, St. Paul, Minnesota

Well ID	AMW-05			AMW-05B			AMW-07			AMW-19			AMW-20			River Gauge STPM 5[1]		
Top of casing Elevation (ft amsl)	725.25			723.99			733.48			707.84			710.02			683.768		
Date	Time	Depth to Water (ft btoc)	GWE (ft amsl)	Time	Depth to Water (ft btoc)	GWE (ft amsl)	Time	Depth to Water (ft btoc)	GWE (ft amsl)	Time	Depth to Water (ft btoc)	GWE (ft amsl)	Time	Depth to Water (ft btoc)	GWE (ft amsl)	Time	Stage (ft)	River Elevation (ft amsl)
06/26/2014	--	NM	NA	--	NM	NA	--	NM	NA	--	NM	NA	--	NM	NA	--	20.13	703.90
07/03/2014	17:30	19.23	706.02	16:20	18.31	705.68	14:30	28.58	704.9	**	NM	NA	**	NM	NA	15:30	15.13	698.90
7/10/2014	14:38	22.13	703.12	14:39	21.34	702.65	14:29	32.54	700.94	14:50	10.25	697.59	14:53	12.57	697.45	14:30	10.34	694.11
7/16/2014	9:56	24.03	701.22	9:53	22.91	701.08	10:02	34.04	699.44	9:41	11.63	696.21	9:46	13.87	696.15	9:45	8.83	692.60
7/24/2014	13:10	26.83	698.42	13:00	25.72	698.27	13:18	36.58	696.9	12:25	15.8	692.04	12:40	18.14	691.88	12:45	5.39	689.16
7/30/2014	11:19	28.54	696.71	11:14	27.31	696.68	11:23	38.05	695.43	11:39	17.66	690.18	11:44	19.85	690.17	11:30	4.26	688.03
8/6/2014	8:04	29.93	695.32	8:02	28.6	695.39	7:57	39.28	694.2	8:30	18.62	689.22	8:38	20.89	689.13	8:15	3.68	687.45
8/13/2014	11:07	30.71	694.54	11:04	29.32	694.67	10:55	40	693.48	11:21	18.85	688.99	11:32	21.09	688.93	11:00	3.86	687.63
8/20/2014	13:40	Dry	NA	13:33	29.83	694.16	13:55	40.44	693.04	13:05	19.2	688.64	13:15	21.4	688.62	13:30	3.39	687.16
8/27/2014	16:50	31.11	694.14	16:51	29.7	694.29	16:54	40.33	693.15	16:30	18.46	689.38	16:35	20.63	689.39	16:30	3.52	687.29

Notes:
All monitoring wells were surveyed by Sunde Land Surveying, LLC. Monitoring wells AMW-05, AMW-05B, and AMW-07 were surveyed on 07/25/2007, and monitoring wells AMW-19 and AMW-20 were surveyed on 11/3/2011.
1 - Data acquired from the National Oceanic and Atmospheric Administration database (http://water.weather.gov/ahps2/hydrograph.php?wfo=mpx&gage=STPM5)
** Well not gauged due to restricted access

AMW	ARCADIS Monitoring Well
GWE	Groundwater Elevation
ft	feet
amsl	above mean sea level.
btoc	below top of casing
NM	Not Measured.
NA	Not Applicable.

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Table 2. Summary of Detected Constituents in Groundwater Samples
Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID			Tier 2	AMW-05	AMW-05	AMW-05B	AMW-05B
Sample ID		Units	SW Standards	AMW-05 (20140703)	AMW-05 (20140807)	AMW-05B (20140703)	AMW-05B (20140806)
Sample Date			Class 2B	7/3/2014	8/7/2014	7/3/2014	8/6/2014
VOCs							
1,1,1,2-Tetrachloroethane		ug/l	13	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane		ug/l	329	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane		ug/l	NS	< 1	< 1	< 1	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		ug/l	NS	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane		ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloroethane		ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloroethene		ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloropropene		ug/l	NS	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene		ug/l	NS	< 1	< 1	< 1	0.17 J
1,2,3-Trichloropropane		ug/l	NS	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene		ug/l	NS	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane (DBCP)		ug/l	NS	< 2	< 2	< 2	< 2
1,2-Dichlorobenzene		ug/l	NS	< 1	< 1	< 1	< 1
1,2-Dichloroethane		ug/l	190	< 1	< 1	< 1	< 1
1,2-Dichloropropane		ug/l	NS	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene		ug/l	NS	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene		ug/l	NS	< 1	< 1	< 1	< 1
1.3-Dichloropropane		ug/l	NS	< 1	< 1	< 1	< 1
2,2-Dichloropropane		ug/l	NS	< 1	< 1	< 1	< 1
2-Butanone (MEK)		ug/l	NS	< 10	< 10	< 10	< 10
2-Chlorotoluene		ug/l	NS	< 1	< 1	< 1	< 1
2-Hexanone		ug/l	NS	< 10	< 10	< 10	< 10
4-Chlorotoluene		ug/l	NS	< 1	< 1	< 1	< 1
Acetone		ug/l	NS	< 10	< 10	< 10	< 10
Allyl chloride		ug/l	NS	< 2	< 2	< 2	< 2
Benzene		ug/l	114	< 1	< 1	< 1	< 1
Bromobenzene		ug/l	NS	< 1	< 1	< 1	< 1
Bromochloromethane		ug/l	NS	< 1	< 1	< 1	< 1
Bromodichloromethane		ug/l	NS	< 1	< 1	< 1	< 1
Bromoform		ug/l	466	< 1	< 1	< 1	< 1
Bromomethane		ug/l	NS	< 1	< 1	< 1	< 1
Butylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
Carbon disulfide		ug/l	NS	< 1	< 1	< 1	0.18 J
Carbon tetrachloride		ug/l	5.9	< 1	< 1	< 1	< 1
Chlorobenzene		ug/l	20	< 1	< 1	< 1	< 1
Chlorodibromomethane		ug/l	NS	< 1	< 1	< 1	< 1
Chloroethane		ug/l	NS	< 1	< 1	< 1	< 1
Chloroform		ug/l	155	< 1	< 1	< 1	< 1
Chloromethane		ug/l	NS	< 1	4.4	< 1	0.46 J
cis-1,2-Dichloroethene		ug/l	NS	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene		ug/l	NS	< 1	< 1	< 1	< 1
Cyclohexane		ug/l	NS	< 1	< 1	< 1	< 1
Dibromomethane		ug/l	NS	< 1	< 1	< 1	< 1
Dichlorodifluoromethane (CFC-12)		ug/l	NS	< 1	< 1	< 1	< 1
Dichlorofluoromethane (Freon 21)		ug/l	NS	< 2	< 2	< 2	< 2
Diethyl ether		ug/l	NS	< 2	< 2	< 2	< 2
Ethylbenzene		ug/l	68	< 1	< 1	< 1	< 1
Ethylene dibromide		ug/l	NS	< 1	< 1	< 1	< 1
Hexachlorobutadiene		ug/l	NS	< 1	< 1	< 1	0.52 J
Isopropylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
Methyl acetate		ug/l	NS	< 10	< 10	< 10	< 10
Methyl isobutyl ketone		ug/l	NS	< 10	< 10	< 10	< 10
Methyl tertiary butyl ether (MTBE)		ug/l	NS	< 1	< 1	< 1	< 1
Methylcyclohexane		ug/l	NS	< 1	< 1	< 1	< 1
Methylene chloride		ug/l	1940	< 1	< 1	< 1	< 1
Naphthalene		ug/l	81	< 1	< 1	< 1	< 1
n-Propylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
p-Isopropyltoluene		ug/l	NS	< 1	< 1	< 1	< 1
sec-Butylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
Styrene		ug/l	NS	< 1	< 1	< 1	< 1
Tert-butylbenzene		ug/l	NS	< 1	< 1	< 1	< 1
Tetrachloroethene		ug/l	8.9	0.39 J	0.32 J	< 1	< 1
Tetrahydrofuran		ug/l	NS	< 5	< 5	< 5	< 5
Toluene		ug/l	253	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene		ug/l	NS	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene		ug/l	NS	< 1	< 1	< 1	< 1
Trichloroethene		ug/l	120	15	3.2	< 1	0.36 J
Trichlorofluoromethane (CFC-11)		ug/l	NS	< 1	< 1	< 1	< 1
Vinyl chloride		ug/l	9.2	< 1	< 1	< 1	< 1
m-Xylene & p-Xylene		ug/l	NS	< 2	< 2	< 2	< 2
Xylene, -o		ug/l	NS	< 1	< 1	< 1	< 1
Total Xylenes		ug/l	166	ND	ND	ND	ND
SVOCs							
2-Methylnaphthalene		ug/l	NS	NA	NA	NA	NA
Acenaphthene		ug/l	20	NA	NA	NA	NA
Acenaphthylene		ug/l	NS	NA	NA	NA	NA
Anthracene		ug/l	0.035	NA	NA	NA	NA
Benzo (g,h,i) perylene		ug/l	NS	NA	NA	NA	NA
Benzo(a)anthracene		ug/l	NS	NA	NA	NA	NA
Benzo(a)pyrene		ug/l	NS	NA	NA	NA	NA
Benzo(b)fluoranthene		ug/l	NS	NA	NA	NA	NA
Benzo(k)fluoranthene		ug/l	NS	NA	NA	NA	NA
Chrysene		ug/l	NS	NA	NA	NA	NA

Table 2. Summary of Detected Constituents in Groundwater Samples, Ford Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID		Tier 2	AMW-05	AMW-05	AMW-05B	AMW-05B
Sample ID	Units	SW Standards	AMW-05 (20140703)	AMW-05 (20140807)	AMW-05B (20140703)	AMW-05B (20140806)
Sample Date		Class 2B	7/3/2014	8/7/2014	7/3/2014	8/6/2014
Dibenzo(a,h)anthracene	ug/l	NS	NA	NA	NA	NA
Fluoranthene	ug/l	1.9	NA	NA	NA	NA
Fluorene	ug/l	NS	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/l	NS	NA	NA	NA	NA
Naphthalene	ug/l	81	NA	NA	NA	NA
Phenanthrene	ug/l	3.6	NA	NA	NA	NA
Pyrene	ug/l	NS	NA	NA	NA	NA
Benzo(a)pyrene (BaP) Equivalents	ug/l	NS	NA	NA	NA	NA
Dissolved Metals						
Aluminum	ug/l	125	< 200	< 200	< 200	< 200
Antimony	ug/l	31	< 10	< 10	< 10	< 10
Arsenic	ug/l	53	< 10	< 10	< 10	< 10
Barium	ug/l	NS	150 J	73 J	70 J	54 J
Beryllium	ug/l	NS	0.62 J	< 5	< 5	< 5
Cadmium	ug/l	1.38 [1]	< 5	< 5	< 5	< 5
Calcium	ug/l	NS	280000	130000	250000	130000
Chromium	ug/l	253.4 [1]	< 10	< 10	< 10	2.4 J
Cobalt	ug/l	5	< 7	2.7 J	< 7	**6.3 J**
Copper	ug/l	11.5 [1]	< 25	< 25	< 25	< 25
Iron	ug/l	NS	810	< 100	300	6000
Lead	ug/l	4.35 [1]	< 3	< 3	< 3	< 3
Magnesium	ug/l	NS	97000	53000	60000	40000
Manganese	ug/l	NS	180	64	25	190
Mercury	ug/l	0.0069	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	ug/l	194.3 [1]	110	31 J	17 J	9.8 J
Potassium	ug/l	NS	11000	7200	14000	2900 J
Selenium	ug/l	5.0	**11**	< 5	< 5	< 5
Silver	ug/l	1	< 10	< 10	< 10	< 10
Sodium	ug/l	NS	89000	120000	170000	23000
Thallium	ug/l	0.56	< 10	< 10	< 10	< 10
Vanadium	ug/l	NS	< 7	< 7	< 7	< 7
Zinc	ug/l	130.7 [1]	< 50	< 50	< 50	< 50

Notes:

Bold	Value is above Tier 2 Surface Water Standards for Class 2B
SW	Surface Water
1	Chronic standards calculated utilizing a Total Hardness of 128 mg/L as reported by MCES at mile marker 847.7 on 6/2/2014 at 7.45 am.
NA	Not analyzed
NS	No standard
<	Not detected
ND	Not detected
J	Estimated result
ug/l	micrograms per liter

Table 2. Summary of Detected Constituents in Groundwater Samples
Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID		Tier 2	AMW-07	AMW-07	AMW-19	AMW-19
Sample ID	Units	SW Standards	AMW-07 (20140703)	AMW-07 (20140807)	AMW-19 (20140807)	DUP-002 (20140807)
Sample Date		Class 2B	7/3/2014	8/7/2014	8/7/2014	8/7/2014
VOCs						
1,1,1,2-Tetrachloroethane	ug/l	13	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	ug/l	329	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	ug/l	NS	< 1	< 1	< 1	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/l	NS	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloroethane	ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloroethene	ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloropropene	ug/l	NS	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane (DBCP)	ug/l	NS	< 2	< 2	< 2	< 2
1,2-Dichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2-Dichloroethane	ug/l	190	< 1	< 1	< 1	< 1
1,2-Dichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1.3-Dichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
2,2-Dichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
2-Butanone (MEK)	ug/l	NS	< 10	< 10	< 10	< 10
2-Chlorotoluene	ug/l	NS	< 1	< 1	< 1	< 1
2-Hexanone	ug/l	NS	< 10	< 10	< 10	< 10
4-Chlorotoluene	ug/l	NS	< 1	< 1	< 1	< 1
Acetone	ug/l	NS	< 10	< 10	< 10	< 10
Allyl chloride	ug/l	NS	< 2	< 2	< 2	< 2
Benzene	ug/l	114	< 1	< 1	< 1	< 1
Bromobenzene	ug/l	NS	< 1	< 1	< 1	< 1
Bromochloromethane	ug/l	NS	< 1	< 1	< 1	< 1
Bromodichloromethane	ug/l	NS	< 1	< 1	< 1	< 1
Bromoform	ug/l	466	< 1	< 1	< 1	< 1
Bromomethane	ug/l	NS	< 1	< 1	< 1	< 1
Butylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Carbon disulfide	ug/l	NS	< 1	< 1	< 1	< 1
Carbon tetrachloride	ug/l	5.9	< 1	< 1	< 1	< 1
Chlorobenzene	ug/l	20	< 1	< 1	< 1	< 1
Chlorodibromomethane	ug/l	NS	< 1	< 1	< 1	< 1
Chloroethane	ug/l	NS	< 1	< 1	< 1	< 1
Chloroform	ug/l	155	< 1	< 1	< 1	< 1
Chloromethane	ug/l	NS	< 1	0.93 J	2.8	2
cis-1,2-Dichloroethene	ug/l	NS	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	ug/l	NS	< 1	< 1	< 1	< 1
Cyclohexane	ug/l	NS	< 1	< 1	< 1	< 1
Dibromomethane	ug/l	NS	< 1	< 1	< 1	< 1
Dichlorodifluoromethane (CFC-12)	ug/l	NS	< 1	< 1	< 1	< 1
Dichlorofluoromethane (Freon 21)	ug/l	NS	< 2	< 2	< 2	< 2
Diethyl ether	ug/l	NS	< 2	< 2	< 2	< 2
Ethylbenzene	ug/l	68	< 1	< 1	< 1	< 1
Ethylene dibromide	ug/l	NS	< 1	< 1	< 1	< 1
Hexachlorobutadiene	ug/l	NS	< 1	< 1	< 1	< 1
Isopropylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Methyl acetate	ug/l	NS	< 10	< 10	< 10	< 10
Methyl isobutyl ketone	ug/l	NS	< 10	< 10	< 10	< 10
Methyl tertiary butyl ether (MTBE)	ug/l	NS	< 1	< 1	< 1	< 1
Methylcyclohexane	ug/l	NS	< 1	< 1	< 1	< 1
Methylene chloride	ug/l	1940	< 1	< 1	< 1	< 1
Naphthalene	ug/l	81	< 1	< 1	< 1	< 1
n-Propylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
p-Isopropyltoluene	ug/l	NS	< 1	< 1	< 1	< 1
sec-Butylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Styrene	ug/l	NS	< 1	< 1	< 1	< 1
Tert-butylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Tetrachloroethene	ug/l	8.9	< 1	< 1	< 1	< 1
Tetrahydrofuran	ug/l	NS	< 5	< 5	< 5	< 5
Toluene	ug/l	253	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	ug/l	NS	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	ug/l	NS	< 1	< 1	< 1	< 1
Trichloroethene	ug/l	120	0.46 J	2.9	< 1	< 1
Trichlorofluoromethane (CFC-11)	ug/l	NS	< 1	< 1	< 1	< 1
Vinyl chloride	ug/l	9.2	< 1	< 1	< 1	< 1
m-Xylene & p-Xylene	ug/l	NS	< 2	< 2	< 2	< 2
Xylene, -o	ug/l	NS	< 1	< 1	< 1	< 1
Total Xylenes	ug/l	166	ND	ND	ND	ND
SVOCs						
2-Methylnaphthalene	ug/l	NS	< 11	< 9.5	NA	NA
Acenaphthene	ug/l	20	< 11	< 9.5	NA	NA
Acenaphthylene	ug/l	NS	< 11	< 9.5	NA	NA
Anthracene	ug/l	0.035	< 11	< 9.5	NA	NA
Benzo (g,h,i) perylene	ug/l	NS	< 11	< 9.5	NA	NA
Benzo(a)anthracene	ug/l	NS	< 0.23	< 0.19	NA	NA
Benzo(a)pyrene	ug/l	NS	< 11	< 9.5	NA	NA
Benzo(b)fluoranthene	ug/l	NS	< 11	< 9.5	NA	NA
Benzo(k)fluoranthene	ug/l	NS	< 11	< 9.5	NA	NA
Chrysene	ug/l	NS	< 11	< 9.5	NA	NA

Table 2. Summary of Detected Constituents in Groundwater Samples, Ford Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID		Tier 2	AMW-07	AMW-07	AMW-19	AMW-19
Sample ID	Units	SW Standards	AMW-07 (20140703)	AMW-07 (20140807)	AMW-19 (20140807)	DUP-002 (20140807)
Sample Date		Class 2B	7/3/2014	8/7/2014	8/7/2014	8/7/2014
Dibenzo(a,h)anthracene	ug/l	NS	< 11	< 9.5	NA	NA
Fluoranthene	ug/l	1.9	< 11	< 9.5	NA	NA
Fluorene	ug/l	NS	< 11	< 9.5	NA	NA
Indeno(1,2,3-cd)pyrene	ug/l	NS	< 11	< 9.5	NA	NA
Naphthalene	ug/l	81	< 11	< 9.5	NA	NA
Phenanthrene	ug/l	3.6	< 11	< 9.5	NA	NA
Pyrene	ug/l	NS	< 11	< 9.5	NA	NA
Benzo(a)pyrene (BaP) Equivalents	ug/l	NS	ND	ND	NA	NA
Dissolved Metals						
Aluminum	ug/l	125	< 200	**270**	< 200	< 200
Antimony	ug/l	31	< 10	12	< 10	2.2 J
Arsenic	ug/l	53	< 10	< 10	3.7 J	< 10
Barium	ug/l	NS	32 J	32 J	120 J	120 J
Beryllium	ug/l	NS	< 5	0.67 J	< 5	< 5
Cadmium	ug/l	1.38 [1]	< 5	< 5	< 5	< 5
Calcium	ug/l	NS	67000	130000	160000	160000
Chromium	ug/l	253.4 [1]	< 10	< 10	< 10	< 10
Cobalt	ug/l	5	< 7	**9.6**	< 7	< 7
Copper	ug/l	11.5 [1]	< 25	< 25	< 25	< 25
Iron	ug/l	NS	3600	< 100	< 100	< 100
Lead	ug/l	4.35 [1]	< 3	< 3	< 3	< 3
Magnesium	ug/l	NS	35000	40000	42000	43000
Manganese	ug/l	NS	180	110	110	110
Mercury	ug/l	0.0069	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	ug/l	194.3 [1]	< 40	49	< 40	< 40
Potassium	ug/l	NS	4800 J	9100	2400 J	2500 J
Selenium	ug/l	5.0	< 5	< 5	< 5	< 5
Silver	ug/l	1	< 10	< 10	< 10	< 10
Sodium	ug/l	NS	24000	67000	31000	32000
Thallium	ug/l	0.56	< 10	< 10	< 10	< 10
Vanadium	ug/l	NS	< 7	< 7	< 7	< 7
Zinc	ug/l	130.7 [1]	< 50	110	< 50	< 50

Notes:

Bold	Value is above Tier 2 Surface Water Standards for Class 2B
SW	Surface Water
1	Chronic standards calculated utilizing a Total Hardness of 128 mg/L as reported by MCES at mile marker 847.7 on 6/2/2014 at 7.45 am.
NA	Not analyzed
NS	No standard
<	Not detected
ND	Not detected
J	Estimated result
ug/l	micrograms per liter

Table 2. Summary of Detected Constituents in Groundwater Samples
Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID		Tier 2	AMW-20	QAQC	QAQC	QAQC
Sample ID	Units	SW Standards	AMW-20 (20140807)	TRIP BLANK-01 (20131217)TB	TRIP BLANKTB (20140617)	EB-001 (20140806)
Sample Date		Class 2B	8/7/2014	7/3/2014	8/6/2014	8/6/2014
VOCs						
1,1,1,2-Tetrachloroethane	ug/l	13	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	ug/l	329	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	ug/l	NS	< 1	< 1	< 1	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/l	NS	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloroethane	ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloroethene	ug/l	NS	< 1	< 1	< 1	< 1
1,1-Dichloropropene	ug/l	NS	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane (DBCP)	ug/l	NS	< 2	< 2	< 2	< 2
1,2-Dichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,2-Dichloroethane	ug/l	190	< 1	< 1	< 1	< 1
1,2-Dichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	ug/l	NS	< 1	< 1	< 1	< 1
1.3-Dichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
2,2-Dichloropropane	ug/l	NS	< 1	< 1	< 1	< 1
2-Butanone (MEK)	ug/l	NS	< 10	< 10	< 10	0.79 J
2-Chlorotoluene	ug/l	NS	< 1	< 1	< 1	< 1
2-Hexanone	ug/l	NS	< 10	< 10	< 10	< 10
4-Chlorotoluene	ug/l	NS	< 1	< 1	< 1	< 1
Acetone	ug/l	NS	< 10	< 10	< 10	< 10
Allyl chloride	ug/l	NS	< 2	< 2	< 2	< 2
Benzene	ug/l	114	< 1	< 1	< 1	< 1
Bromobenzene	ug/l	NS	< 1	< 1	< 1	< 1
Bromochloromethane	ug/l	NS	< 1	< 1	< 1	< 1
Bromodichloromethane	ug/l	NS	< 1	< 1	< 1	< 1
Bromoform	ug/l	466	< 1	< 1	< 1	< 1
Bromomethane	ug/l	NS	< 1	< 1	< 1	< 1
Butylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Carbon disulfide	ug/l	NS	< 1	< 1	< 1	2.2
Carbon tetrachloride	ug/l	5.9	< 1	< 1	< 1	< 1
Chlorobenzene	ug/l	20	< 1	< 1	< 1	< 1
Chlorodibromomethane	ug/l	NS	< 1	< 1	< 1	< 1
Chloroethane	ug/l	NS	< 1	< 1	< 1	< 1
Chloroform	ug/l	155	< 1	< 1	< 1	< 1
Chloromethane	ug/l	NS	4.6	< 1	< 1	0.34 J
cis-1,2-Dichloroethene	ug/l	NS	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	ug/l	NS	< 1	< 1	< 1	< 1
Cyclohexane	ug/l	NS	< 1	< 1	< 1	< 1
Dibromomethane	ug/l	NS	< 1	< 1	< 1	< 1
Dichlorodifluoromethane (CFC-12)	ug/l	NS	< 1	< 1	< 1	< 1
Dichlorofluoromethane (Freon 21)	ug/l	NS	< 2	< 1	< 1	< 2
Diethyl ether	ug/l	NS	< 2	< 1	< 1	< 2
Ethylbenzene	ug/l	68	< 1	< 1	< 1	< 1
Ethylene dibromide	ug/l	NS	< 1	< 1	< 1	< 1
Hexachlorobutadiene	ug/l	NS	< 1	< 1	< 1	< 1
Isopropylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Methyl acetate	ug/l	NS	< 10	< 10	< 10	< 10
Methyl isobutyl ketone	ug/l	NS	< 10	< 5	< 5	< 10
Methyl tertiary butyl ether (MTBE)	ug/l	NS	< 1	< 2	< 2	< 1
Methylcyclohexane	ug/l	NS	< 1	< 1	< 1	< 1
Methylene chloride	ug/l	1940	< 1	< 1	< 1	< 1
Naphthalene	ug/l	81	< 1	< 1	< 1	< 1
n-Propylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
p-Isopropyltoluene	ug/l	NS	< 1	< 1	< 1	< 1
sec-Butylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Styrene	ug/l	NS	< 1	< 1	< 1	< 1
Tert-butylbenzene	ug/l	NS	< 1	< 1	< 1	< 1
Tetrachloroethene	ug/l	8.9	< 1	< 1	< 1	< 1
Tetrahydrofuran	ug/l	NS	< 5	< 5	< 5	< 5
Toluene	ug/l	253	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	ug/l	NS	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	ug/l	NS	< 1	< 1	< 1	< 1
Trichloroethene	ug/l	120	< 1	< 1	< 1	< 1
Trichlorofluoromethane (CFC-11)	ug/l	NS	< 1	< 1	< 1	< 1
Vinyl chloride	ug/l	9.2	< 1	< 1	< 1	< 1
m-Xylene & p-Xylene	ug/l	NS	< 2	< 2	< 2	< 2
Xylene, -o	ug/l	NS	< 1	< 1	< 1	< 1
Total Xylenes	ug/l	166	ND	ND	ND	ND
SVOCs						
2-Methylnaphthalene	ug/l	NS	NA	NA	NA	NA
Acenaphthene	ug/l	20	NA	NA	NA	NA
Acenaphthylene	ug/l	NS	NA	NA	NA	NA
Anthracene	ug/l	0.035	NA	NA	NA	NA
Benzo (g,h,i) perylene	ug/l	NS	NA	NA	NA	NA
Benzo(a)anthracene	ug/l	NS	NA	NA	NA	NA
Benzo(a)pyrene	ug/l	NS	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/l	NS	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/l	NS	NA	NA	NA	NA
Chrysene	ug/l	NS	NA	NA	NA	NA

Table 2. Summary of Detected Constituents in Groundwater Samples, Ford Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID			AMW-20	QAQC	QAQC	QAQC
Sample ID	Units	Tier 2 SW Standards Class 2B	AMW-20 (20140807)	TRIP BLANK-01 (20131217)TB	TRIP BLANKTB (20140617)	EB-001 (20140806)
Sample Date			8/7/2014	7/3/2014	8/6/2014	8/6/2014
Dibenzo(a,h)anthracene	ug/l	NS	NA	NA	NA	NA
Fluoranthene	ug/l	1.9	NA	NA	NA	NA
Fluorene	ug/l	NS	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/l	NS	NA	NA	NA	NA
Naphthalene	ug/l	81	NA	NA	NA	NA
Phenanthrene	ug/l	3.6	NA	NA	NA	NA
Pyrene	ug/l	NS	NA	NA	NA	NA
Benzo(a)pyrene (BaP) Equivalents	ug/l	NS	NA	NA	NA	NA
Dissolved Metals						
Aluminum	ug/l	125	< 200	NA	NA	NA
Antimony	ug/l	31	< 10	NA	NA	NA
Arsenic	ug/l	53	< 10	NA	NA	NA
Barium	ug/l	NS	160 J	NA	NA	NA
Beryllium	ug/l	NS	< 5	NA	NA	NA
Cadmium	ug/l	1.38 [1]	< 5	NA	NA	NA
Calcium	ug/l	NS	200000	NA	NA	NA
Chromium	ug/l	253.4 [1]	< 10	NA	NA	NA
Cobalt	ug/l	5	< 7	NA	NA	NA
Copper	ug/l	11.5 [1]	< 25	NA	NA	NA
Iron	ug/l	NS	380	NA	NA	NA
Lead	ug/l	4.35 [1]	< 3	NA	NA	NA
Magnesium	ug/l	NS	55000	NA	NA	NA
Manganese	ug/l	NS	1400	NA	NA	NA
Mercury	ug/l	0.0069	< 0.2	NA	NA	NA
Nickel	ug/l	194.3 [1]	5.5 J	NA	NA	NA
Potassium	ug/l	NS	3100 J	NA	NA	NA
Selenium	ug/l	5.0	< 5	NA	NA	NA
Silver	ug/l	1	< 10	NA	NA	NA
Sodium	ug/l	NS	58000	NA	NA	NA
Thallium	ug/l	0.56	< 10	NA	NA	NA
Vanadium	ug/l	NS	< 7	NA	NA	NA
Zinc	ug/l	130.7 [1]	< 50	NA	NA	NA

Notes:

Bold	Value is above Tier 2 Surface Water Standards for Class 2B
SW	Surface Water
1	Chronic standards calculated utilizing a Total Hardness of 128 mg/L as reported by MCES at mile marker 847.7 on 6/2/2014 at 7.45 am.
NA	Not analyzed
NS	No standard
<	Not detected
ND	Not detected
J	Estimated result
ug/l	micrograms per liter

ARCADIS

Figures

LEGEND:

- Existing Monitoring Well
- Ford Property Boundary
- Fence
- Buildings
- Asphalt
- Concrete
- Grass
- Mississippi River/Retention Pond
- Elevation Contours (Feet Mean Sea Level)

0 140 280 Feet

1 inch = 140 feet

NOTES:

AMW ARCADIS Monitoring Well

Topographic survey for Area C completed January 2012, Sunde Land Surveying

Twin Cities Assembly Plant
Ford Motor Company
St. Paul, Minnesota

Site Layout Map and Monitoring Well Locations

ARCADIS

FIGURE 1

CITY: MPLS, MN DB: MG LD: RO
FORD ST. PAUL
Path: G:\GIS\Projects\Ford Ranger\ArcMap\2014\2014-08\Area_C_Layout_20140811.mxd

ARCADIS

Attachments

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-40552-1

Job Description: Ford TCAP - E200572

For:
ARCADIS U.S., Inc.
430 First Avenue, North
Suite 720
Minneapolis, MN 55304

Attention: Ms. Angharad Pagnon

Approved for release.
Denise Pohl
Project Manager II
8/21/2014 5:15 PM

Denise Pohl, Project Manager II
4101 Shuffel Street NW, North Canton, OH, 44720
(330)966-9789
denise.pohl@testamericainc.com
08/21/2014

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford TCAP - E200572

Report Number: 240-40552-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/9/2014 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples AMW-05B (20140806) (240-40552-1), EB-001 (20140806) (240-40552-2), AMW-05 (20140807) (240-40552-3), AMW-19 (20140807) (240-40552-4), AMW-20 (20140807) (240-40552-5), DUP-002 (20140807) (240-40552-6), TRIP BLANK (240-40552-7) and AMW-07 (20140807) (240-40552-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/14/2014.

Acetone and Tetrahydrofuran were detected in method blank MB 240-142797/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

1,1,2-Trichloro-1,2,2-trifluoroethane failed the recovery criteria low for the MS/MSD of sample 240-40483-9 in batch 240-142797. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample AMW-07 (20140807) (240-40552-8) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/13/2014 and analyzed on 08/14/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Method(s) 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 142593.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Samples AMW-05B (20140806) (240-40552-1), AMW-05 (20140807) (240-40552-3), AMW-19 (20140807) (240-40552-4), AMW-20 (20140807) (240-40552-5), DUP-002 (20140807) (240-40552-6) and AMW-07 (20140807) (240-40552-8) were analyzed for dissolved metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 08/12/2014 and analyzed on 08/13/2014.

Barium, Calcium, Magnesium, Thallium and Zinc were detected in method blank MB 240-142428/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED MERCURY (CVAA)

Samples AMW-05B (20140806) (240-40552-1), AMW-05 (20140807) (240-40552-3), AMW-19 (20140807) (240-40552-4), AMW-20 (20140807) (240-40552-5), DUP-002 (20140807) (240-40552-6) and AMW-07 (20140807) (240-40552-8) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/12/2014 and analyzed on 08/14/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-40552-1	**AMW-05B (20140806)**					
1,2,3-Trichlorobenzene		0.17	J	1.0	ug/L	8260B
Carbon disulfide		0.18	J	1.0	ug/L	8260B
Chloromethane		0.46	J	1.0	ug/L	8260B
Hexachlorobutadiene		0.52	J	1.0	ug/L	8260B
Trichloroethene		0.36	J	1.0	ug/L	8260B
Dissolved						
Barium		54	J B	200	ug/L	6010B
Chromium		2.4	J	10	ug/L	6010B
Calcium		130000	B	5000	ug/L	6010B
Cobalt		6.3	J	7.0	ug/L	6010B
Iron		6000		100	ug/L	6010B
Potassium		2900	J	5000	ug/L	6010B
Magnesium		40000	B	5000	ug/L	6010B
Manganese		190		15	ug/L	6010B
Sodium		23000		5000	ug/L	6010B
Nickel		9.8	J	40	ug/L	6010B
Thallium		4.7	J B	10	ug/L	6010B
Zinc		10	J B	50	ug/L	6010B
240-40552-2EB	**EB-001 (20140806)**					
Acetone		4.8	J B	10	ug/L	8260B
Carbon disulfide		2.2		1.0	ug/L	8260B
Chloromethane		0.34	J	1.0	ug/L	8260B
2-Butanone (MEK)		0.79	J	10	ug/L	8260B
240-40552-3	**AMW-05 (20140807)**					
Acetone		1.3	J B	10	ug/L	8260B
Chloromethane		4.4		1.0	ug/L	8260B
Tetrachloroethene		0.32	J	1.0	ug/L	8260B
Trichloroethene		3.2		1.0	ug/L	8260B
Dissolved						
Barium		73	J B	200	ug/L	6010B
Calcium		130000	B	5000	ug/L	6010B
Cobalt		2.7	J	7.0	ug/L	6010B
Potassium		7200		5000	ug/L	6010B
Magnesium		53000	B	5000	ug/L	6010B
Manganese		64		15	ug/L	6010B
Sodium		120000		5000	ug/L	6010B
Nickel		31	J	40	ug/L	6010B
Zinc		27	J B	50	ug/L	6010B

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-40552-4	**AMW-19 (20140807)**					
Chloromethane		2.8		1.0	ug/L	8260B
Dissolved						
Barium		120	J B	200	ug/L	6010B
Arsenic		3.7	J	10	ug/L	6010B
Calcium		160000	B	5000	ug/L	6010B
Potassium		2400	J	5000	ug/L	6010B
Magnesium		42000	B	5000	ug/L	6010B
Manganese		110		15	ug/L	6010B
Sodium		31000		5000	ug/L	6010B
240-40552-5	**AMW-20 (20140807)**					
Chloromethane		4.6		1.0	ug/L	8260B
Dissolved						
Barium		160	J B	200	ug/L	6010B
Calcium		200000	B	5000	ug/L	6010B
Iron		380		100	ug/L	6010B
Potassium		3100	J	5000	ug/L	6010B
Magnesium		55000	B	5000	ug/L	6010B
Manganese		1400		15	ug/L	6010B
Sodium		58000		5000	ug/L	6010B
Nickel		5.5	J	40	ug/L	6010B
240-40552-6FD	**DUP-002 (20140807)**					
Chloromethane		2.0		1.0	ug/L	8260B
Dissolved						
Barium		120	J B	200	ug/L	6010B
Calcium		160000	B	5000	ug/L	6010B
Potassium		2500	J	5000	ug/L	6010B
Magnesium		43000	B	5000	ug/L	6010B
Manganese		110		15	ug/L	6010B
Sodium		32000		5000	ug/L	6010B
Antimony		2.2	J	10	ug/L	6010B
Thallium		5.2	J B	10	ug/L	6010B
240-40552-7TB	**TRIP BLANK**					
Acetone		1.2	J H B	10	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-40552-8	**AMW-07 (20140807)**					
Chloromethane		0.93	J	1.0	ug/L	8260B
Trichloroethene		2.9		1.0	ug/L	8260B
Dissolved						
Barium		32	J B	200	ug/L	6010B
Aluminum		270		200	ug/L	6010B
Beryllium		0.67	J	5.0	ug/L	6010B
Calcium		130000	B	5000	ug/L	6010B
Cobalt		9.6		7.0	ug/L	6010B
Potassium		9100		5000	ug/L	6010B
Magnesium		40000	B	5000	ug/L	6010B
Manganese		110		15	ug/L	6010B
Sodium		67000		5000	ug/L	6010B
Nickel		49		40	ug/L	6010B
Antimony		12		10	ug/L	6010B
Thallium		5.2	J B	10	ug/L	6010B
Zinc		110	B	50	ug/L	6010B

METHOD SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CAN	SW846 8260B	
Purge and Trap	TAL CAN		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL CAN		SW846 3520C
Metals (ICP)	TAL CAN	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals	TAL CAN		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL CAN	SW846 7470A	
Preparation, Mercury	TAL CAN		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD

Lab References:

TAL CAN = TestAmerica Canton

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Method	Analyst	Analyst ID
SW846 8260B	Evans, Laura	LEE
SW846 8270C	Gruber, John	JMG
SW846 6010B	Counts, Karen	KLC
SW846 7470A	Martin, Aaron	AMM2

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-40552-1	AMW-05B (20140806)	Water	08/06/2014 1620	08/09/2014 0945
240-40552-2EB	EB-001 (20140806)	Water	08/06/2014 0000	08/09/2014 0945
240-40552-3	AMW-05 (20140807)	Water	08/07/2014 1345	08/09/2014 0945
240-40552-4	AMW-19 (20140807)	Water	08/07/2014 1025	08/09/2014 0945
240-40552-5	AMW-20 (20140807)	Water	08/07/2014 1155	08/09/2014 0945
240-40552-6FD	DUP-002 (20140807)	Water	08/07/2014 0000	08/09/2014 0945
240-40552-7TB	TRIP BLANK	Water	08/06/2014 0000	08/09/2014 0945
240-40552-8	AMW-07 (20140807)	Water	08/07/2014 1640	08/09/2014 0945

SAMPLE RESULTS

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-05B (20140806)**

Lab Sample ID: 240-40552-1 Date Sampled: 08/06/2014 1620
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0238.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1353			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1353				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	0.17	J	0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	ND		1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	0.18	J	0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	0.46	J	0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	0.52	J	0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-05B (20140806)**

Lab Sample ID: 240-40552-1 Date Sampled: 08/06/2014 1620
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0238.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1353			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1353				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	0.36	J	0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 129
4-Bromofluorobenzene (Surr)	85		66 - 120
Toluene-d8 (Surr)	90		74 - 120
Dibromofluoromethane (Surr)	102		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **EB-001 (20140806)**

Lab Sample ID: 240-40552-2EB Date Sampled: 08/06/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0239.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1415			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1415				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	4.8	J B	1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	2.2		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	0.34	J	0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **EB-001 (20140806)**

Lab Sample ID: 240-40552-2EB Date Sampled: 08/06/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0239.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1415			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1415				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	0.79	J	0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	ND		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		63 - 129
4-Bromofluorobenzene (Surr)	85		66 - 120
Toluene-d8 (Surr)	89		74 - 120
Dibromofluoromethane (Surr)	103		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-05 (20140807)**

Lab Sample ID: 240-40552-3 Date Sampled: 08/07/2014 1345
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0240.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1439			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1439				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	1.3	J B	1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	ND		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	4.4		0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-05 (20140807)**

Lab Sample ID: 240-40552-3 Date Sampled: 08/07/2014 1345
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0240.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1439			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1439				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	0.32	J	0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	3.2		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 120
Toluene-d8 (Surr)	87		74 - 120
Dibromofluoromethane (Surr)	103		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-19 (20140807)**

Lab Sample ID: 240-40552-4 Date Sampled: 08/07/2014 1025
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0241.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1501			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1501				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	ND		1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	ND		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	2.8		0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-19 (20140807)**

Lab Sample ID: 240-40552-4 Date Sampled: 08/07/2014 1025
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0241.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1501			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1501				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	ND		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 120
Toluene-d8 (Surr)	89		74 - 120
Dibromofluoromethane (Surr)	101		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-20 (20140807)**

Lab Sample ID: 240-40552-5 Date Sampled: 08/07/2014 1155
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0242.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1524			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1524				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	ND		1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	ND		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	4.6		0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-20 (20140807)**

Lab Sample ID: 240-40552-5 Date Sampled: 08/07/2014 1155
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0242.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1524			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1524				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	ND		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		63 - 129
4-Bromofluorobenzene (Surr)	88		66 - 120
Toluene-d8 (Surr)	92		74 - 120
Dibromofluoromethane (Surr)	104		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **DUP-002 (20140807)**

Lab Sample ID: 240-40552-6FD Date Sampled: 08/07/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0243.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1547			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1547				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	ND		1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	ND		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	2.0		0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **DUP-002 (20140807)**

Lab Sample ID: 240-40552-6FD Date Sampled: 08/07/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0243.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1547			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1547				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	ND		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		63 - 129
4-Bromofluorobenzene (Surr)	85		66 - 120
Toluene-d8 (Surr)	88		74 - 120
Dibromofluoromethane (Surr)	99		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 240-40552-7TB Date Sampled: 08/06/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0244.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1611			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1611				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND	H	0.23	1.0
1,1,1-Trichloroethane	ND	H	0.22	1.0
1,1,2,2-Tetrachloroethane	ND	H	0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H	0.28	1.0
1,1,2-Trichloroethane	ND	H	0.27	1.0
1,1-Dichloroethane	ND	H	0.15	1.0
1,1-Dichloroethene	ND	H	0.19	1.0
1,1-Dichloropropene	ND	H	0.13	1.0
1,2,3-Trichlorobenzene	ND	H	0.17	1.0
1,2,3-Trichloropropane	ND	H	0.43	1.0
1,2,4-Trichlorobenzene	ND	H	0.15	1.0
1,2,4-Trimethylbenzene	ND	H	0.12	1.0
1,2-Dibromo-3-Chloropropane	ND	H	0.67	2.0
1,2-Dichlorobenzene	ND	H	0.13	1.0
1,2-Dichloroethane	ND	H	0.22	1.0
1,2-Dichloropropane	ND	H	0.18	1.0
1,3,5-Trimethylbenzene	ND	H	0.096	1.0
1,3-Dichlorobenzene	ND	H	0.14	1.0
1,3-Dichloropropane	ND	H	0.16	1.0
1,4-Dichlorobenzene	ND	H	0.13	1.0
Allyl chloride	ND	H	0.35	2.0
2,2-Dichloropropane	ND	H	0.13	1.0
2-Chlorotoluene	ND	H	0.11	1.0
2-Hexanone	ND	H	0.41	10
Bromobenzene	ND	H	0.13	1.0
Bromochloromethane	ND	H	0.29	1.0
4-Chlorotoluene	ND	H	0.18	1.0
p-Isopropyltoluene	ND	H	0.12	1.0
Acetone	1.2	J H B	1.1	10
Benzene	ND	H	0.13	1.0
Bromoform	ND	H	0.64	1.0
Bromomethane	ND	H	0.41	1.0
Carbon disulfide	ND	H	0.13	1.0
Carbon tetrachloride	ND	H	0.13	1.0
Chlorobenzene	ND	H	0.15	1.0
Chloroethane	ND	H	0.29	1.0
Chloroform	ND	H	0.16	1.0
Chloromethane	ND	H	0.30	1.0
cis-1,2-Dichloroethene	ND	H	0.17	1.0
cis-1,3-Dichloropropene	ND	H	0.14	1.0
Cyclohexane	ND	H	0.12	1.0
Hexachlorobutadiene	ND	H	0.30	1.0
Dibromomethane	ND	H	0.28	1.0
Bromodichloromethane	ND	H	0.15	1.0
Dichlorodifluoromethane	ND	H	0.31	1.0
Dichlorofluoromethane	ND	H	0.42	1.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 240-40552-7TB Date Sampled: 08/06/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0244.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1611			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1611				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND	H	0.31	1.0
Ethylbenzene	ND	H	0.17	1.0
1,2-Dibromoethane	ND	H	0.24	1.0
Naphthalene	ND	H	0.24	1.0
m-Xylene & p-Xylene	ND	H	0.24	2.0
n-Butylbenzene	ND	H	0.12	1.0
Isopropylbenzene	ND	H	0.13	1.0
Methyl acetate	ND	H	0.38	10
N-Propylbenzene	ND	H	0.14	1.0
2-Butanone (MEK)	ND	H	0.57	10
4-Methyl-2-pentanone (MIBK)	ND	H	0.32	5.0
sec-Butylbenzene	ND	H	0.13	1.0
Methyl tert butyl ether	ND	H	0.17	2.0
Methylene Chloride	ND	H	0.33	1.0
o-Xylene	ND	H	0.14	1.0
Styrene	ND	H	0.11	1.0
tert-Butylbenzene	ND	H	0.13	1.0
Tetrachloroethene	ND	H	0.29	1.0
Tetrahydrofuran	ND	H	0.42	5.0
Toluene	ND	H	0.13	1.0
trans-1,2-Dichloroethene	ND	H	0.19	1.0
trans-1,3-Dichloropropene	ND	H	0.19	1.0
Trichloroethene	ND	H	0.17	1.0
Trichlorofluoromethane	ND	H	0.21	1.0
Vinyl chloride	ND	H	0.22	1.0
Methylcyclohexane	ND	H	0.13	1.0
Chlorodibromomethane	ND	H	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 129
4-Bromofluorobenzene (Surr)	87		66 - 120
Toluene-d8 (Surr)	89		74 - 120
Dibromofluoromethane (Surr)	103		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-07 (20140807)**

Lab Sample ID: 240-40552-8 Date Sampled: 08/07/2014 1640
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0245.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1634			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1634				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	ND		1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	ND		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	0.93	J	0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0
Dichlorofluoromethane	ND		0.42	2.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-07 (20140807)**

Lab Sample ID: 240-40552-8 Date Sampled: 08/07/2014 1640
Client Matrix: Water Date Received: 08/09/2014 0945

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXJ0245.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1634			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1634				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	ND		0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	2.9		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 120
Toluene-d8 (Surr)	88		74 - 120
Dibromofluoromethane (Surr)	106		75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-07 (20140807)**

Lab Sample ID: 240-40552-8 Date Sampled: 08/07/2014 1640
Client Matrix: Water Date Received: 08/09/2014 0945

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-142780	Instrument ID:	A4HP7
Prep Method:	3520C	Prep Batch:	240-142593	Lab File ID:	40814021.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Analysis Date:	08/14/2014 1804			Final Weight/Volume:	2 mL
Prep Date:	08/13/2014 0751			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	ND		0.042	9.5
Acenaphthylene	ND		0.046	9.5
Anthracene	ND		0.084	9.5
Benzo[a]anthracene	ND		0.028	0.19
Benzo[b]fluoranthene	ND		0.038	9.5
Benzo[k]fluoranthene	ND		0.043	9.5
Benzo[g,h,i]perylene	ND		0.044	9.5
Benzo[a]pyrene	ND		0.049	9.5
Chrysene	ND		0.048	9.5
2-Methylnaphthalene	ND		0.086	9.5
Dibenz(a,h)anthracene	ND		0.042	9.5
Fluoranthene	ND		0.042	9.5
Fluorene	ND		0.039	9.5
Indeno[1,2,3-cd]pyrene	ND		0.041	9.5
Naphthalene	ND		0.060	9.5
Phenanthrene	ND		0.059	9.5
Pyrene	ND		0.040	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	63		20 - 110
2-Fluorophenol (Surr)	39		10 - 110
2,4,6-Tribromophenol (Surr)	74		21 - 110
Nitrobenzene-d5 (Surr)	58		21 - 110
Phenol-d5 (Surr)	23		21 - 110
Terphenyl-d14 (Surr)	73		24 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-05B (20140806)**

Lab Sample ID: 240-40552-1 Date Sampled: 08/06/2014 1620
Client Matrix: Water Date Received: 08/09/2014 0945

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	240-142742	Instrument ID:	I9
Prep Method:	3005A	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1336			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	54	J B	0.67	200
Aluminum	ND		97	200
Cadmium	ND		0.66	5.0
Chromium	2.4	J	2.2	10
Silver	ND		2.2	10
Arsenic	ND		3.2	10
Beryllium	ND		0.46	5.0
Lead	ND		1.9	3.0
Calcium	130000	B	130	5000
Selenium	ND		4.1	5.0
Cobalt	6.3	J	1.7	7.0
Copper	ND		4.5	25
Iron	6000		81	100
Potassium	2900	J	72	5000
Magnesium	40000	B	34	5000
Manganese	190		0.96	15
Sodium	23000		590	5000
Nickel	9.8	J	3.2	40
Antimony	ND		2.1	10
Thallium	4.7	J B	4.7	10
Vanadium	ND		2.4	7.0
Zinc	10	J B	5.0	50

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	240-142937	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1522			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-05 (20140807)**

Lab Sample ID: 240-40552-3 Date Sampled: 08/07/2014 1345
Client Matrix: Water Date Received: 08/09/2014 0945

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	240-142742	Instrument ID:	I9
Prep Method:	3005A	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1428			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	73	J B	0.67	200
Aluminum	ND		97	200
Cadmium	ND		0.66	5.0
Chromium	ND		2.2	10
Silver	ND		2.2	10
Arsenic	ND		3.2	10
Beryllium	ND		0.46	5.0
Lead	ND		1.9	3.0
Calcium	130000	B	130	5000
Selenium	ND		4.1	5.0
Cobalt	2.7	J	1.7	7.0
Copper	ND		4.5	25
Iron	ND		81	100
Potassium	7200		72	5000
Magnesium	53000	B	34	5000
Manganese	64		0.96	15
Sodium	120000		590	5000
Nickel	31	J	3.2	40
Antimony	ND		2.1	10
Thallium	ND		4.7	10
Vanadium	ND		2.4	7.0
Zinc	27	J B	5.0	50

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	240-142937	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1450			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-19 (20140807)**

Lab Sample ID: 240-40552-4 Date Sampled: 08/07/2014 1025
Client Matrix: Water Date Received: 08/09/2014 0945

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	240-142742	Instrument ID:	I9
Prep Method:	3005A	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1432			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	120	J B	0.67	200
Aluminum	ND		97	200
Cadmium	ND		0.66	5.0
Chromium	ND		2.2	10
Silver	ND		2.2	10
Arsenic	3.7	J	3.2	10
Beryllium	ND		0.46	5.0
Lead	ND		1.9	3.0
Calcium	160000	B	130	5000
Selenium	ND		4.1	5.0
Cobalt	ND		1.7	7.0
Copper	ND		4.5	25
Iron	ND		81	100
Potassium	2400	J	72	5000
Magnesium	42000	B	34	5000
Manganese	110		0.96	15
Sodium	31000		590	5000
Nickel	ND		3.2	40
Antimony	ND		2.1	10
Thallium	ND		4.7	10
Vanadium	ND		2.4	7.0
Zinc	ND		5.0	50

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	240-142937	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1500			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-20 (20140807)**

Lab Sample ID: 240-40552-5 Date Sampled: 08/07/2014 1155
Client Matrix: Water Date Received: 08/09/2014 0945

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	240-142742	Instrument ID:	I9
Prep Method:	3005A	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1436			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	160	J B	0.67	200
Aluminum	ND		97	200
Cadmium	ND		0.66	5.0
Chromium	ND		2.2	10
Silver	ND		2.2	10
Arsenic	ND		3.2	10
Beryllium	ND		0.46	5.0
Lead	ND		1.9	3.0
Calcium	200000	B	130	5000
Selenium	ND		4.1	5.0
Cobalt	ND		1.7	7.0
Copper	ND		4.5	25
Iron	380		81	100
Potassium	3100	J	72	5000
Magnesium	55000	B	34	5000
Manganese	1400		0.96	15
Sodium	58000		590	5000
Nickel	5.5	J	3.2	40
Antimony	ND		2.1	10
Thallium	ND		4.7	10
Vanadium	ND		2.4	7.0
Zinc	ND		5.0	50

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	240-142937	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1502			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **DUP-002 (20140807)**

Lab Sample ID: 240-40552-6FD Date Sampled: 08/07/2014 0000
Client Matrix: Water Date Received: 08/09/2014 0945

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	240-142742	Instrument ID:	I9
Prep Method:	3005A	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1440			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	120	J B	0.67	200
Aluminum	ND		97	200
Cadmium	ND		0.66	5.0
Chromium	ND		2.2	10
Silver	ND		2.2	10
Arsenic	ND		3.2	10
Beryllium	ND		0.46	5.0
Lead	ND		1.9	3.0
Calcium	160000	B	130	5000
Selenium	ND		4.1	5.0
Cobalt	ND		1.7	7.0
Copper	ND		4.5	25
Iron	ND		81	100
Potassium	2500	J	72	5000
Magnesium	43000	B	34	5000
Manganese	110		0.96	15
Sodium	32000		590	5000
Nickel	ND		3.2	40
Antimony	2.2	J	2.1	10
Thallium	5.2	J B	4.7	10
Vanadium	ND		2.4	7.0
Zinc	ND		5.0	50

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	240-142937	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1516			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Client Sample ID: **AMW-07 (20140807)**

Lab Sample ID: 240-40552-8 Date Sampled: 08/07/2014 1640
Client Matrix: Water Date Received: 08/09/2014 0945

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	240-142742	Instrument ID:	I9
Prep Method:	3005A	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1444			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	32	J B	0.67	200
Aluminum	270		97	200
Cadmium	ND		0.66	5.0
Chromium	ND		2.2	10
Silver	ND		2.2	10
Arsenic	ND		3.2	10
Beryllium	0.67	J	0.46	5.0
Lead	ND		1.9	3.0
Calcium	130000	B	130	5000
Selenium	ND		4.1	5.0
Cobalt	9.6		1.7	7.0
Copper	ND		4.5	25
Iron	ND		81	100
Potassium	9100		72	5000
Magnesium	40000	B	34	5000
Manganese	110		0.96	15
Sodium	67000		590	5000
Nickel	49		3.2	40
Antimony	12		2.1	10
Thallium	5.2	J B	4.7	10
Vanadium	ND		2.4	7.0
Zinc	110	B	5.0	50

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	240-142937	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1504			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	H	Sample was prepped or analyzed beyond the specified holding time
Metals		
	B	Compound was found in the blank and sample.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-142797					
LCS 240-142797/4	Lab Control Sample	T	Water	8260B	
MB 240-142797/5	Method Blank	T	Water	8260B	
240-40483-C-9 MS	Matrix Spike	T	Water	8260B	
240-40483-C-9 MSD	Matrix Spike Duplicate	T	Water	8260B	
240-40552-1	AMW-05B (20140806)	T	Water	8260B	
240-40552-2EB	EB-001 (20140806)	T	Water	8260B	
240-40552-3	AMW-05 (20140807)	T	Water	8260B	
240-40552-4	AMW-19 (20140807)	T	Water	8260B	
240-40552-5	AMW-20 (20140807)	T	Water	8260B	
240-40552-6FD	DUP-002 (20140807)	T	Water	8260B	
240-40552-7TB	TRIP BLANK	T	Water	8260B	
240-40552-8	AMW-07 (20140807)	T	Water	8260B	

Report Basis
T = Total

GC/MS Semi VOA

Prep Batch: 240-142593					
LCS 240-142593/4-A	Lab Control Sample	T	Water	3520C	
MB 240-142593/3-A	Method Blank	T	Water	3520C	
240-40552-8	AMW-07 (20140807)	T	Water	3520C	
Analysis Batch:240-142780					
LCS 240-142593/4-A	Lab Control Sample	T	Water	8270C	240-142593
MB 240-142593/3-A	Method Blank	T	Water	8270C	240-142593
240-40552-8	AMW-07 (20140807)	T	Water	8270C	240-142593

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-142428					
LCS 240-142428/2-A	Lab Control Sample	R	Water	3005A	
MB 240-142428/1-A	Method Blank	R	Water	3005A	
240-40552-1	AMW-05B (20140806)	D	Water	3005A	
240-40552-1MS	Matrix Spike	D	Water	3005A	
240-40552-1MSD	Matrix Spike Duplicate	D	Water	3005A	
240-40552-3	AMW-05 (20140807)	D	Water	3005A	
240-40552-4	AMW-19 (20140807)	D	Water	3005A	
240-40552-5	AMW-20 (20140807)	D	Water	3005A	
240-40552-6FD	DUP-002 (20140807)	D	Water	3005A	
240-40552-8	AMW-07 (20140807)	D	Water	3005A	
Prep Batch: 240-142441					
LCS 240-142441/2-A	Lab Control Sample	T	Water	7470A	
MB 240-142441/1-A	Method Blank	T	Water	7470A	
240-40552-1	AMW-05B (20140806)	D	Water	7470A	
240-40552-3	AMW-05 (20140807)	D	Water	7470A	
240-40552-3MS	Matrix Spike	D	Water	7470A	
240-40552-3MSD	Matrix Spike Duplicate	D	Water	7470A	
240-40552-4	AMW-19 (20140807)	D	Water	7470A	
240-40552-5	AMW-20 (20140807)	D	Water	7470A	
240-40552-6FD	DUP-002 (20140807)	D	Water	7470A	
240-40552-8	AMW-07 (20140807)	D	Water	7470A	
Analysis Batch:240-142742					
LCS 240-142428/2-A	Lab Control Sample	R	Water	6010B	240-142428
MB 240-142428/1-A	Method Blank	R	Water	6010B	240-142428
240-40552-1	AMW-05B (20140806)	D	Water	6010B	240-142428
240-40552-1MS	Matrix Spike	D	Water	6010B	240-142428
240-40552-1MSD	Matrix Spike Duplicate	D	Water	6010B	240-142428
240-40552-3	AMW-05 (20140807)	D	Water	6010B	240-142428
240-40552-4	AMW-19 (20140807)	D	Water	6010B	240-142428
240-40552-5	AMW-20 (20140807)	D	Water	6010B	240-142428
240-40552-6FD	DUP-002 (20140807)	D	Water	6010B	240-142428
240-40552-8	AMW-07 (20140807)	D	Water	6010B	240-142428

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:240-142937					
LCS 240-142441/2-A	Lab Control Sample	T	Water	7470A	240-142441
MB 240-142441/1-A	Method Blank	T	Water	7470A	240-142441
240-40552-1	AMW-05B (20140806)	D	Water	7470A	240-142441
240-40552-3	AMW-05 (20140807)	D	Water	7470A	240-142441
240-40552-3MS	Matrix Spike	D	Water	7470A	240-142441
240-40552-3MSD	Matrix Spike Duplicate	D	Water	7470A	240-142441
240-40552-4	AMW-19 (20140807)	D	Water	7470A	240-142441
240-40552-5	AMW-20 (20140807)	D	Water	7470A	240-142441
240-40552-6FD	DUP-002 (20140807)	D	Water	7470A	240-142441
240-40552-8	AMW-07 (20140807)	D	Water	7470A	240-142441

Report Basis

D = Dissolved

R = Total Recoverable

T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
240-40552-1	AMW-05B (20140806)	99	85	90	102
240-40552-2	EB-001 (20140806)	97	85	89	103
240-40552-3	AMW-05 (20140807)	104	82	87	103
240-40552-4	AMW-19 (20140807)	99	82	89	101
240-40552-5	AMW-20 (20140807)	103	88	92	104
240-40552-6	DUP-002 (20140807)	96	85	88	99
240-40552-7	TRIP BLANK	100	87	89	103
240-40552-8	AMW-07 (20140807)	102	83	88	106
MB 240-142797/5		96	84	86	95
LCS 240-142797/4		87	98	90	94
240-40483-C-9 MS		88	101	95	94
240-40483-C-9 MSD		92	95	92	95

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
BFB = 4-Bromofluorobenzene (Surr)	66-120
TOL = Toluene-d8 (Surr)	74-120
DBFM = Dibromofluoromethane (Surr)	75-121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
240-40552-8	AMW-07 (20140807)	63	39	74	58	23	73
MB 240-142593/3-A		63	50	65	59	35	81
LCS 240-142593/4-A		68	53	82	66	36	74

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl (Surr)	20-110
2FP = 2-Fluorophenol (Surr)	10-110
TBP = 2,4,6-Tribromophenol (Surr)	21-110
NBZ = Nitrobenzene-d5 (Surr)	21-110
PHL = Phenol-d5 (Surr)	21-110
TPH = Terphenyl-d14 (Surr)	24-110

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Method Blank - Batch: 240-142797

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-142797/5	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0232.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1134	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1134				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.23	1.0
1,1,1-Trichloroethane	ND		0.22	1.0
1,1,2,2-Tetrachloroethane	ND		0.18	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.28	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1-Dichloroethane	ND		0.15	1.0
1,1-Dichloroethene	ND		0.19	1.0
1,1-Dichloropropene	ND		0.13	1.0
1,2,3-Trichlorobenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.43	1.0
1,2,4-Trichlorobenzene	ND		0.15	1.0
1,2,4-Trimethylbenzene	ND		0.12	1.0
1,2-Dibromo-3-Chloropropane	ND		0.67	2.0
1,2-Dichlorobenzene	ND		0.13	1.0
1,2-Dichloroethane	ND		0.22	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,3,5-Trimethylbenzene	ND		0.096	1.0
1,3-Dichlorobenzene	ND		0.14	1.0
1,3-Dichloropropane	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.13	1.0
Allyl chloride	ND		0.35	2.0
2,2-Dichloropropane	ND		0.13	1.0
2-Chlorotoluene	ND		0.11	1.0
2-Hexanone	ND		0.41	10
Bromobenzene	ND		0.13	1.0
Bromochloromethane	ND		0.29	1.0
4-Chlorotoluene	ND		0.18	1.0
p-Isopropyltoluene	ND		0.12	1.0
Acetone	1.27	J	1.1	10
Benzene	ND		0.13	1.0
Bromoform	ND		0.64	1.0
Bromomethane	ND		0.41	1.0
Carbon disulfide	ND		0.13	1.0
Carbon tetrachloride	ND		0.13	1.0
Chlorobenzene	ND		0.15	1.0
Chloroethane	ND		0.29	1.0
Chloroform	ND		0.16	1.0
Chloromethane	ND		0.30	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
cis-1,3-Dichloropropene	ND		0.14	1.0
Cyclohexane	ND		0.12	1.0
Hexachlorobutadiene	ND		0.30	1.0
Dibromomethane	ND		0.28	1.0
Bromodichloromethane	ND		0.15	1.0
Dichlorodifluoromethane	ND		0.31	1.0

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Method Blank - Batch: 240-142797

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-142797/5	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0232.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1134	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1134				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dichlorofluoromethane	ND		0.42	2.0
Ethyl ether	ND		0.31	2.0
Ethylbenzene	ND		0.17	1.0
1,2-Dibromoethane	ND		0.24	1.0
Naphthalene	ND		0.24	1.0
m-Xylene & p-Xylene	ND		0.24	2.0
n-Butylbenzene	ND		0.12	1.0
Isopropylbenzene	ND		0.13	1.0
Methyl acetate	ND		0.38	10
N-Propylbenzene	ND		0.14	1.0
2-Butanone (MEK)	ND		0.57	10
4-Methyl-2-pentanone (MIBK)	ND		0.32	10
sec-Butylbenzene	ND		0.13	1.0
Methyl tert butyl ether	ND		0.17	1.0
Methylene Chloride	ND		0.33	1.0
o-Xylene	ND		0.14	1.0
Styrene	ND		0.11	1.0
tert-Butylbenzene	ND		0.13	1.0
Tetrachloroethene	ND		0.29	1.0
Tetrahydrofuran	0.925	J	0.42	5.0
Toluene	ND		0.13	1.0
trans-1,2-Dichloroethene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.19	1.0
Trichloroethene	ND		0.17	1.0
Trichlorofluoromethane	ND		0.21	1.0
Vinyl chloride	ND		0.22	1.0
Methylcyclohexane	ND		0.13	1.0
Chlorodibromomethane	ND		0.18	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	63 - 129
4-Bromofluorobenzene (Surr)	84	66 - 120
Toluene-d8 (Surr)	86	74 - 120
Dibromofluoromethane (Surr)	95	75 - 121

Lab Control Sample - Batch: 240-142797

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-142797/4	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0229.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1025	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1025				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	10.0	10.2	102	72 - 120	
1,1,1-Trichloroethane	10.0	10.6	106	74 - 120	
1,1,2,2-Tetrachloroethane	10.0	9.21	92	68 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.77	98	74 - 151	
1,1,2-Trichloroethane	10.0	9.96	100	80 - 120	
1,1-Dichloroethane	10.0	10.6	106	80 - 120	
1,1-Dichloroethene	10.0	9.66	97	78 - 131	
1,1-Dichloropropene	10.0	11.0	110	80 - 120	
1,2,3-Trichlorobenzene	10.0	9.68	97	54 - 126	
1,2,3-Trichloropropane	10.0	9.08	91	73 - 129	
1,2,4-Trichlorobenzene	10.0	9.60	96	48 - 135	
1,2,4-Trimethylbenzene	10.0	10.3	103	76 - 120	
1,2-Dibromo-3-Chloropropane	10.0	8.75	87	42 - 136	
1,2-Dichlorobenzene	10.0	9.91	99	80 - 120	
1,2-Dichloroethane	10.0	10.6	106	71 - 127	
1,2-Dichloropropane	10.0	10.3	103	80 - 120	
1,3,5-Trimethylbenzene	10.0	10.3	103	72 - 120	
1,3-Dichlorobenzene	10.0	9.60	96	80 - 120	
1,3-Dichloropropane	10.0	9.72	97	79 - 120	
1,4-Dichlorobenzene	10.0	9.75	97	80 - 120	
Allyl chloride	10.0	9.02	90	40 - 160	
2,2-Dichloropropane	10.0	10.5	105	50 - 129	
2-Chlorotoluene	10.0	9.75	98	76 - 120	
2-Hexanone	20.0	17.9	90	55 - 133	
Bromobenzene	10.0	9.61	96	76 - 120	
Bromochloromethane	10.0	10.2	102	77 - 120	
4-Chlorotoluene	10.0	9.87	99	77 - 120	
p-Isopropyltoluene	10.0	10.1	101	74 - 120	
Acetone	20.0	17.2	86	43 - 136	
Benzene	10.0	10.5	105	80 - 120	
Bromoform	10.0	9.13	91	40 - 131	
Bromomethane	10.0	10.7	107	11 - 185	
Carbon disulfide	10.0	10.5	105	62 - 142	
Carbon tetrachloride	10.0	10.5	105	66 - 128	
Chlorobenzene	10.0	10.4	104	80 - 120	
Chloroethane	10.0	10.3	103	25 - 153	
Chloroform	10.0	10.6	106	79 - 120	
Chloromethane	10.0	10.6	106	44 - 126	
cis-1,2-Dichloroethene	10.0	10.7	107	80 - 120	
cis-1,3-Dichloropropene	10.0	11.1	111	61 - 120	
Cyclohexane	10.0	9.55	96	54 - 121	

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Control Sample - Batch: 240-142797

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-142797/4	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0229.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1025	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1025				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	10.0	9.13	91	36 - 134	
Dibromomethane	10.0	10.0	100	80 - 120	
Bromodichloromethane	10.0	10.2	102	72 - 121	
Dichlorodifluoromethane	10.0	9.96	100	19 - 129	
Dichlorofluoromethane	10.0	10.9	109	40 - 160	
Ethyl ether	10.0	10.8	108	53 - 135	
Ethylbenzene	10.0	10.0	100	80 - 120	
1,2-Dibromoethane	10.0	9.87	99	79 - 120	
Naphthalene	10.0	9.31	93	32 - 141	
m-Xylene & p-Xylene	10.0	10.5	105	80 - 120	
n-Butylbenzene	10.0	9.80	98	66 - 125	
Isopropylbenzene	10.0	10.5	105	75 - 120	
Methyl acetate	50.0	47.8	96	58 - 131	
N-Propylbenzene	10.0	9.64	96	74 - 121	
2-Butanone (MEK)	20.0	18.9	94	60 - 126	
4-Methyl-2-pentanone (MIBK)	20.0	19.0	95	63 - 128	
sec-Butylbenzene	10.0	9.87	99	70 - 120	
Methyl tert butyl ether	10.0	10.1	101	52 - 144	
Methylene Chloride	10.0	10.6	106	66 - 131	
o-Xylene	10.0	10.9	109	80 - 120	
Styrene	10.0	11.3	113	79 - 120	
tert-Butylbenzene	10.0	9.82	98	71 - 120	
Tetrachloroethene	10.0	10.2	102	79 - 120	
Tetrahydrofuran	20.0	19.4	97	23 - 143	
Toluene	10.0	10.4	104	80 - 120	
trans-1,2-Dichloroethene	10.0	10.7	107	80 - 120	
trans-1,3-Dichloropropene	10.0	11.2	112	58 - 120	
Trichloroethene	10.0	10.7	107	76 - 120	
Trichlorofluoromethane	10.0	10.3	103	49 - 157	
Vinyl chloride	10.0	10.7	107	53 - 127	
Methylcyclohexane	10.0	9.29	93	56 - 127	
Chlorodibromomethane	10.0	10.3	103	64 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87	63 - 129
4-Bromofluorobenzene (Surr)	98	66 - 120
Toluene-d8 (Surr)	90	74 - 120
Dibromofluoromethane (Surr)	94	75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-142797

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-40483-C-9 MS	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0236.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1307			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1307				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-40483-C-9 MSD	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0237.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1329			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1329				5 mL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	96	104	68 - 121	8	30		
1,1,2,2-Tetrachloroethane	93	99	63 - 122	6	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	69	31	70 - 152	14	30	F1	F1
1,1,2-Trichloroethane	103	101	75 - 120	2	30		
1,1-Dichloroethane	99	108	79 - 120	9	30		
1,1-Dichloroethene	99	104	74 - 135	5	30		
1,2,4-Trichlorobenzene	90	95	38 - 138	6	30		
1,2-Dibromo-3-Chloropropane	82	86	32 - 139	5	30		
1,2-Dichlorobenzene	96	102	75 - 120	6	30		
1,2-Dichloroethane	100	109	68 - 129	8	30		
1,2-Dichloropropane	101	110	78 - 120	9	30		
1,3-Dichlorobenzene	92	103	73 - 120	11	30		
1,4-Dichlorobenzene	94	97	75 - 120	3	30		
2-Hexanone	97	94	47 - 139	3	30		
Acetone	82	89	33 - 145	9	30		
Benzene	100	106	72 - 121	5	30		
Bromoform	86	76	32 - 128	12	30		
Bromomethane	94	106	10 - 186	13	30		
Carbon disulfide	93	104	57 - 147	11	30		
Carbon tetrachloride	101	105	59 - 129	4	30		
Chlorobenzene	100	103	80 - 120	2	30		
Chloroethane	97	106	21 - 165	9	30		
Chloroform	98	107	76 - 120	8	30		
Chloromethane	98	110	33 - 132	11	30		
cis-1,2-Dichloroethene	98	107	70 - 120	8	30		
cis-1,3-Dichloropropene	92	99	51 - 120	8	30		
Cyclohexane	106	102	49 - 123	3	30		
Bromodichloromethane	95	104	67 - 120	9	30		
Dichlorodifluoromethane	103	103	17 - 128	0	30		
Ethylbenzene	101	105	75 - 120	4	30		
1,2-Dibromoethane	98	102	74 - 120	4	30		
m-Xylene & p-Xylene	100	105	75 - 120	5	30		

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-142797

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-40483-C-9 MS	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0236.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1307			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1307				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-40483-C-9 MSD	Analysis Batch:	240-142797	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ0237.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/14/2014 1329			Final Weight/Volume:	5 mL
Prep Date:	08/14/2014 1329				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Isopropylbenzene	104	107	68 - 120	3	30		
Methyl acetate	97	100	47 - 130	3	30		
2-Butanone (MEK)	91	98	54 - 129	8	30		
4-Methyl-2-pentanone (MIBK)	98	100	56 - 131	2	30		
Methyl tert butyl ether	94	104	46 - 144	10	30		
Methylene Chloride	100	107	63 - 128	6	30		
o-Xylene	110	113	76 - 120	3	30		
Styrene	109	114	71 - 120	5	30		
Tetrachloroethene	93	96	70 - 120	1	30		
Toluene	101	106	78 - 120	5	30		
trans-1,2-Dichloroethene	101	105	80 - 120	4	30		
trans-1,3-Dichloropropene	103	101	46 - 120	2	30		
Trichloroethene	93	108	66 - 120	12	30		
Trichlorofluoromethane	93	102	46 - 157	9	30		
Vinyl chloride	98	109	49 - 130	11	30		
Methylcyclohexane	109	97	49 - 127	12	30		
Chlorodibromomethane	92	92	56 - 120	0	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88	92	63 - 129
4-Bromofluorobenzene (Surr)	101	95	66 - 120
Toluene-d8 (Surr)	95	92	74 - 120
Dibromofluoromethane (Surr)	94	95	75 - 121

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Method Blank - Batch: 240-142593

Method: 8270C
Preparation: 3520C

Lab Sample ID:	MB 240-142593/3-A	Analysis Batch:	240-142780	Instrument ID:	A4HP7
Client Matrix:	Water	Prep Batch:	240-142593	Lab File ID:	40814006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	08/14/2014 1052	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	08/13/2014 0751			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	ND		0.044	10
Acenaphthylene	ND		0.048	10
Anthracene	ND		0.088	10
Benzo[a]anthracene	ND		0.030	0.20
Benzo[b]fluoranthene	ND		0.039	10
Benzo[k]fluoranthene	ND		0.045	10
Benzo[g,h,i]perylene	ND		0.046	10
Benzo[a]pyrene	ND		0.051	10
Chrysene	ND		0.050	10
2-Methylnaphthalene	ND		0.090	10
Dibenz(a,h)anthracene	ND		0.045	10
Fluoranthene	ND		0.045	10
Fluorene	ND		0.041	10
Indeno[1,2,3-cd]pyrene	ND		0.043	10
Naphthalene	ND		0.063	10
Phenanthrene	ND		0.062	10
Pyrene	ND		0.042	10

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	63	20 - 110
2-Fluorophenol (Surr)	50	10 - 110
2,4,6-Tribromophenol (Surr)	65	21 - 110
Nitrobenzene-d5 (Surr)	59	21 - 110
Phenol-d5 (Surr)	35	21 - 110
Terphenyl-d14 (Surr)	81	24 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Control Sample - Batch: 240-142593

Method: 8270C
Preparation: 3520C

Lab Sample ID:	LCS 240-142593/4-A	Analysis Batch:	240-142780	Instrument ID:	A4HP7
Client Matrix:	Water	Prep Batch:	240-142593	Lab File ID:	40814007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	08/14/2014 1118	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	08/13/2014 0751			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	20.0	13.5	68	47 - 110	
Acenaphthylene	20.0	13.1	66	49 - 110	
Anthracene	20.0	14.3	71	52 - 110	
Benzo[a]anthracene	20.0	14.2	71	52 - 110	
Benzo[b]fluoranthene	20.0	14.8	74	48 - 110	
Benzo[k]fluoranthene	20.0	15.0	75	49 - 110	
Benzo[g,h,i]perylene	20.0	14.1	71	50 - 110	
Benzo[a]pyrene	20.0	14.6	73	44 - 110	
Chrysene	20.0	13.5	68	55 - 110	
2-Methylnaphthalene	20.0	11.8	59	45 - 110	
Dibenz(a,h)anthracene	20.0	14.6	73	49 - 110	
Fluoranthene	20.0	14.7	73	54 - 110	
Fluorene	20.0	14.6	73	52 - 110	
Indeno[1,2,3-cd]pyrene	20.0	14.3	72	50 - 110	
Naphthalene	20.0	11.4	57	44 - 110	
Phenanthrene	20.0	14.3	72	53 - 110	
Pyrene	20.0	14.2	71	52 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	68	20 - 110
2-Fluorophenol (Surr)	53	10 - 110
2,4,6-Tribromophenol (Surr)	82	21 - 110
Nitrobenzene-d5 (Surr)	66	21 - 110
Phenol-d5 (Surr)	36	21 - 110
Terphenyl-d14 (Surr)	74	24 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Method Blank - Batch: 240-142428

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 240-142428/1-A	Analysis Batch:	240-142742	Instrument ID:	I9
Client Matrix:	Water	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1328	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Barium	1.06	J	0.67	200
Aluminum	ND		97	200
Cadmium	ND		0.66	5.0
Chromium	ND		2.2	10
Silver	ND		2.2	10
Arsenic	ND		3.2	10
Beryllium	ND		0.46	5.0
Lead	ND		1.9	3.0
Calcium	412	J	130	5000
Selenium	ND		4.1	5.0
Cobalt	ND		1.7	7.0
Copper	ND		4.5	25
Iron	ND		81	100
Potassium	ND		72	5000
Magnesium	78.1	J	34	5000
Manganese	ND		0.96	15
Sodium	ND		590	5000
Nickel	ND		3.2	40
Antimony	ND		2.1	10
Thallium	4.83	J	4.7	10
Vanadium	ND		2.4	7.0
Zinc	18.9	J	5.0	50

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Lab Control Sample - Batch: 240-142428

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 240-142428/2-A	Analysis Batch:	240-142742	Instrument ID:	I9
Client Matrix:	Water	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1332	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Barium	2000	1960	98	80 - 120	
Aluminum	2000	2000	100	80 - 120	
Cadmium	50.0	52.5	105	80 - 120	
Chromium	200	195	98	80 - 120	
Silver	50.0	52.6	105	80 - 120	
Arsenic	2000	2000	100	80 - 120	
Beryllium	50.0	48.6	97	80 - 120	
Lead	500	483	97	80 - 120	
Calcium	50000	51200	102	80 - 120	
Selenium	2000	2150	107	80 - 120	
Cobalt	500	482	96	80 - 120	
Copper	250	253	101	80 - 120	
Iron	1000	1010	101	80 - 120	
Potassium	50000	51400	103	80 - 120	
Magnesium	50000	51100	102	80 - 120	
Manganese	500	486	97	80 - 120	
Sodium	50000	51500	103	80 - 120	
Nickel	500	489	98	80 - 120	
Antimony	500	516	103	80 - 120	
Thallium	2000	1950	98	80 - 120	
Vanadium	500	515	103	80 - 120	
Zinc	500	542	108	80 - 120	

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-142428

Method: 6010B
Preparation: 3005A
Dissolved

MS Lab Sample ID:	240-40552-1	Analysis Batch:	240-142742	Instrument ID:	I9
Client Matrix:	Water	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1348			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				
Leach Date:	N/A				

MSD Lab Sample ID:	240-40552-1	Analysis Batch:	240-142742	Instrument ID:	I9
Client Matrix:	Water	Prep Batch:	240-142428	Lab File ID:	I9081314A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/13/2014 1351			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 0934				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Barium	101	98	75 - 125	3	20		
Aluminum	105	101	75 - 125	3	20		
Cadmium	109	106	75 - 125	3	20		
Chromium	100	97	75 - 125	3	20		
Silver	110	110	75 - 125	0	20		
Arsenic	104	100	75 - 125	3	20		
Beryllium	100	96	75 - 125	5	20		
Lead	99	96	75 - 125	3	20		
Calcium	106	102	75 - 125	1	20		
Selenium	110	106	75 - 125	3	20		
Cobalt	98	96	75 - 125	3	20		
Copper	106	104	75 - 125	2	20		
Iron	105	103	75 - 125	0	20	4	4
Potassium	107	105	75 - 125	2	20		
Magnesium	105	105	75 - 125	0	20		
Manganese	101	99	75 - 125	1	20		
Sodium	107	107	75 - 125	0	20		
Nickel	99	97	75 - 125	3	20		
Antimony	109	105	75 - 125	3	20		
Thallium	101	98	75 - 125	3	20		
Vanadium	105	101	75 - 125	4	20		
Zinc	97	94	75 - 125	3	20		

Client: ARCADIS U.S., Inc. Job Number: 240-40552-1

Method Blank - Batch: 240-142441

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 240-142441/1-A	Analysis Batch:	240-142937	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1441	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.12	0.20

Lab Control Sample - Batch: 240-142441

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 240-142441/2-A	Analysis Batch:	240-142937	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1443	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	5.00	5.56	111	81 - 123	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-142441

Method: 7470A
Preparation: 7470A
Dissolved

MS Lab Sample ID:	240-40552-3	Analysis Batch:	240-142937	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1455			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				
Leach Date:	N/A				

MSD Lab Sample ID:	240-40552-3	Analysis Batch:	240-142937	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-142441	Lab File ID:	081414A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/14/2014 1457			Final Weight/Volume:	50 mL
Prep Date:	08/12/2014 1440				
Leach Date:	N/A				

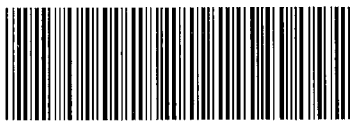
	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	96	90	69 - 134	6	20		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-40552 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

3.8

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: ARCADIS Client #: _____
Address: 430 First Ave N #720
City/State/Zip Code: Minneapolis, MN 55401
Project Manager: Angharad Pagnon
Email Address: angharad.pagnon@arcadis-us.com
Telephone Number: 612 339 9434 Fax: _____
Sampler Name: (Print Name) Adam Salzer Paige Schulz
Sampler Signature: Paige Schulz

Project Name: Ford TCAP
Project #: NE000372.0004
Site/Location ID: St Paul State: MN
Report To: lab contact Denice Pohl
Invoice To: accounts payable
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: VOCs	Dissolved TAL metals	PAH	Temperature	REMARKS
AMW-05B(20140806)	8/6/14	1620	G	—	GW	1	3						3	1			
EB-001(20140806)	8/6/14	—	G	—	—		2						2				
AMW-05(20140807)	8/7/14	1345	G	—	GW	1	3						3	1			
AMW-19(20140807)	8/7/14	1025	G	—	GW	1	3						3	1			
AMW-20(20140807)	8/7/14	1155	G	—	GW	1	3						3	1			
DUP-002(20140807)	8/7/14	—	G	—	GW	1	3						3	1			
Temperature Blank	—	—	—	—	—						1					1	
Trip blank	8/7/14	—	—	—	—		1						1				
AMW-07(20140807)	8/7/14	1640	G	—	GW	1	3				2		3	1	2		

QC Deliverables
___ None
X Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions: Dissolved TAL metals samples have been field filtered

LABORATORY COMMENTS:

Relinquished By:	Date: 8-5-14	Time: 1605	Received By:	Date: 8-5-14	Time: 1605
Relinquished By:	Date: 8-5-14	Time:	Received By: Heather Powell	Date: 8/9/14	Time: 8/9/14 0915
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 40552

Client ARCADIS Site Name Ford TCAP

Cooler unpacked by: Heather Tenney

Cooler Received on 8/9/14 Opened on 8/9/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +2 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 4	(CF -2 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 5	(CF 0 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 8	(CF 0 °C)	Observed Cooler Temp. 3.8 °C	Corrected Cooler Temp. 3.8 °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC412469
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other .
Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
AMW-05B (20140806)	240-40552-D-1	Plastic 250ml - w/nitric - dis	<2		
AMW-05 (20140807)	240-40552-D-3	Plastic 250ml - w/nitric - dis	<2		
AMW-19 (20140807)	240-40552-D-4	Plastic 250ml - w/nitric - dis	<2		
AMW-20 (20140807)	240-40552-D-5	Plastic 250ml - w/nitric - dis	<2		
DUP-002 (20140807)	240-40552-D-6	Plastic 250ml - w/nitric - dis	<2		
AMW-07 (20140807)	240-40552-D-8	Plastic 250ml - w/nitric - dis	<2		

August 23, 2014

Rob Ellis
ARCADIS
430 First Avenue North, Ste 720
Minneapolis, MN US 55401

CADENA project ID: E200572
Project: FORD-Twin Cities Assembly Plant
Project number: DE000372.0003
Laboratory: TestAmerica - North Canton
Laboratory submittal: 40552-1
Sample date: 2014-08-07 2014-08-06
Report received by CADENA: 2014-08-21
Initial Data Verification completed by CADENA: 2014-08-23

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

7 Water sample(s) and 1 trip blank were analyzed for GCMS VOC, GCMS SVOC and Metals parameter(s).

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The following minor QC exceptions or missing information were noted:

EPA 8260B VOC GCMS, batch 142797 MB had detections below RL for acetone and tetrahydrofuran (THF). Based on these detections, client sample results for THF do not require qualification; acetone results for sample -2, -3 and -7 should be considered not-detect and flagged UB.
EPA 6010B metals ICP, batch 142428 MB had detections below RL for barium, calcium, magnesium, thallium and zinc. Based on these detections, client sample -1, -6 and -8 results for thallium should be considered not-detect and flagged UB; client sample -1 and -3 results for zinc should be considered not-detect and flagged UB.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory's analytical report access the CADENA CLMS at http://enovis-inc.com/enovis53/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E200572
Laboratory: TestAmerica-North Canton
Laboratory Submittal: 40552-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	Volatile Organics by GCMS	Semivolatiles by GCMS	Metals by ICP Spectroscopy(D)	Mercury (Manual Cold Vapor)(D)
240405521	AMW-05B (20140806)	8/6/2014	4:20:00	X		X	X
240405522	EB-001 (20140806)	8/6/2014	12:00:00	X			
240405523	AMW-05 (20140807)	8/7/2014	1:45:00	X		X	X
240405524	AMW-19 (20140807)	8/7/2014	10:25:00	X		X	X
240405525	AMW-20 (20140807)	8/7/2014	11:55:00	X		X	X
240405526	DUP-002 (20140807)	8/7/2014	12:00:00	X		X	X
240405527	TRIP BLANK	8/6/2014	12:00:00	X			
240405528	AMW-07 (20140807)	8/7/2014	4:40:00	X	X	X	X

Qualified Results Summary

CADENA Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 40552-1

	Sample Name:	AMW-05B (20140806)				EB-001 (20140806)				AMW-05 (20140807)			
	Lab Sample ID:	240405521				240405522				240405523			
	Sample Date:	8/6/2014				8/6/2014				8/7/2014			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC													
OSW-8260B													
Acetone	67-64-1					4.8	10	ug/l	UB	1.3	10	ug/l	UB
Metals													
OSW-6010B													
Thallium - Dissolved	7440-28-0	4.7	10	ug/l	UB								
Zinc - Dissolved	7440-66-6	10	50	ug/l	UB					27	50	ug/l	UB

Analytical Results Summary

CADENA Project ID: E200572

Laboratory: TestAmerica - North Canton

Laboratory Submittal: 40552-1

		Sample Name:	AMW-05B (20140806)			EB-001 (20140806)			
		Lab Sample ID:	240405521			240405522			
		Sample Date:	8/6/2014			8/6/2014			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260B									
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloropropene	563-58-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	0.17	1.0	ug/l	J	ND	1.0	ug/l	---
1,2,3-Trichloropropane	96-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trimethylbenzene	95-63-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	2.0	ug/l	---	ND	2.0	ug/l	---
1,2-Dibromoethane	106-93-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---

1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3,5-Trimethylbenzene	108-67-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichloropropane	142-28-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2,2-Dichloropropane	594-20-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	10	ug/l	---	0.79	10	ug/l	J
2-Chlorotoluene	95-49-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Hexanone	591-78-6	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorotoluene	106-43-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	10	ug/l	---	ND	10	ug/l	---
Acetone	67-64-1	ND	10	ug/l	---	4.8	10	ug/l	UB
Allyl chloride	107-05-1	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromobenzene	108-86-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromochloromethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromodichloromethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	0.18	1.0	ug/l	J	2.2	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	0.46	1.0	ug/l	J	0.34	1.0	ug/l	J
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dibromomethane	74-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---

Dichlorofluoromethane	75-43-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Ethyl ether	60-29-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorobutadiene	87-68-3	0.52	1.0	ug/l	J	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
m-Xylene & p-Xylene	179601-23-1	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Methyl acetate	79-20-9	ND	10	ug/l	---	ND	10	ug/l	---
Methyl tert butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
n-Butylbenzene	104-51-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Propylbenzene	103-65-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene	91-20-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
o-Xylene	95-47-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
p-Isopropyltoluene	99-87-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
sec-Butylbenzene	135-98-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
tert-Butylbenzene	98-06-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrahydrofuran	109-99-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	0.36	1.0	ug/l	J	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---

GC/MS SVOC

OSW-8270C

2-Methylnaphthalene	91-57-6
Acenaphthene	83-32-9

Acenaphthylene	208-96-8				
Anthracene	120-12-7				
Benzo[a]anthracene	56-55-3				
Benzo[a]pyrene	50-32-8				
Benzo[b]fluoranthene	205-99-2				
Benzo[g,h,i]perylene	191-24-2				
Benzo[k]fluoranthene	207-08-9				
Chrysene	218-01-9				
Dibenz(a,h)anthracene	53-70-3				
Fluoranthene	206-44-0				
Fluorene	86-73-7				
Indeno[1,2,3-cd]pyrene	193-39-5				
Naphthalene	91-20-3				
Phenanthrene	85-01-8				
Pyrene	129-00-0				

Metals

OSW-6010B

Aluminum - Dissolved	7429-90-5	ND	200	ug/l	---
Antimony - Dissolved	7440-36-0	ND	10	ug/l	---
Arsenic - Dissolved	7440-38-2	ND	10	ug/l	---
Barium - Dissolved	7440-39-3	54	200	ug/l	J
Beryllium - Dissolved	7440-41-7	ND	5.0	ug/l	---
Cadmium - Dissolved	7440-43-9	ND	5.0	ug/l	---
Calcium - Dissolved	7440-70-2	130000	5000	ug/l	---
Chromium - Dissolved	7440-47-3	2.4	10	ug/l	J
Cobalt - Dissolved	7440-48-4	6.3	7.0	ug/l	J
Copper - Dissolved	7440-50-8	ND	25	ug/l	---
Iron - Dissolved	7439-89-6	6000	100	ug/l	---
Lead - Dissolved	7439-92-1	ND	3.0	ug/l	---
Magnesium - Dissolved	7439-95-4	40000	5000	ug/l	---

Manganese - Dissolved	7439-96-5	190	15	ug/l	---
Nickel - Dissolved	7440-02-0	9.8	40	ug/l	J
Potassium - Dissolved	7440-09-7	2900	5000	ug/l	J
Selenium - Dissolved	7782-49-2	ND	5.0	ug/l	---
Silver - Dissolved	7440-22-4	ND	10	ug/l	---
Sodium - Dissolved	7440-23-5	23000	5000	ug/l	---
Thallium - Dissolved	7440-28-0	4.7	10	ug/l	UB
Vanadium - Dissolved	7440-62-2	ND	7.0	ug/l	---
Zinc - Dissolved	7440-66-6	10	50	ug/l	UB
OSW-7470A					
Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 40552-1

		Sample Name:	AMW-05 (20140807)			AMW-19 (20140807)			
		Lab Sample ID:	240405523			240405524			
		Sample Date:	8/7/2014			8/7/2014			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260B									
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloropropene	563-58-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichloropropane	96-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trimethylbenzene	95-63-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	2.0	ug/l	---	ND	2.0	ug/l	---
1,2-Dibromoethane	106-93-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---

1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3,5-Trimethylbenzene	108-67-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichloropropane	142-28-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2,2-Dichloropropane	594-20-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorotoluene	95-49-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Hexanone	591-78-6	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorotoluene	106-43-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	10	ug/l	---	ND	10	ug/l	---
Acetone	67-64-1	1.3	10	ug/l	UB	ND	10	ug/l	---
Allyl chloride	107-05-1	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromobenzene	108-86-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromochloromethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromodichloromethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	4.4	1.0	ug/l	---	2.8	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dibromomethane	74-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---

Dichlorofluoromethane	75-43-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Ethyl ether	60-29-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
m-Xylene & p-Xylene	179601-23-1	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Methyl acetate	79-20-9	ND	10	ug/l	---	ND	10	ug/l	---
Methyl tert butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
n-Butylbenzene	104-51-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Propylbenzene	103-65-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene	91-20-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
o-Xylene	95-47-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
p-Isopropyltoluene	99-87-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
sec-Butylbenzene	135-98-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
tert-Butylbenzene	98-06-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	0.32	1.0	ug/l	J	ND	1.0	ug/l	---
Tetrahydrofuran	109-99-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	3.2	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---

GC/MS SVOC

OSW-8270C

2-Methylnaphthalene	91-57-6
Acenaphthene	83-32-9

Acenaphthylene	208-96-8								
Anthracene	120-12-7								
Benzo[a]anthracene	56-55-3								
Benzo[a]pyrene	50-32-8								
Benzo[b]fluoranthene	205-99-2								
Benzo[g,h,i]perylene	191-24-2								
Benzo[k]fluoranthene	207-08-9								
Chrysene	218-01-9								
Dibenz(a,h)anthracene	53-70-3								
Fluoranthene	206-44-0								
Fluorene	86-73-7								
Indeno[1,2,3-cd]pyrene	193-39-5								
Naphthalene	91-20-3								
Phenanthrene	85-01-8								
Pyrene	129-00-0								

Metals

OSW-6010B

Aluminum - Dissolved	7429-90-5	ND	200	ug/l	---	ND	200	ug/l	---
Antimony - Dissolved	7440-36-0	ND	10	ug/l	---	ND	10	ug/l	---
Arsenic - Dissolved	7440-38-2	ND	10	ug/l	---	3.7	10	ug/l	J
Barium - Dissolved	7440-39-3	73	200	ug/l	J	120	200	ug/l	J
Beryllium - Dissolved	7440-41-7	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Cadmium - Dissolved	7440-43-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Calcium - Dissolved	7440-70-2	130000	5000	ug/l	---	160000	5000	ug/l	---
Chromium - Dissolved	7440-47-3	ND	10	ug/l	---	ND	10	ug/l	---
Cobalt - Dissolved	7440-48-4	2.7	7.0	ug/l	J	ND	7.0	ug/l	---
Copper - Dissolved	7440-50-8	ND	25	ug/l	---	ND	25	ug/l	---
Iron - Dissolved	7439-89-6	ND	100	ug/l	---	ND	100	ug/l	---
Lead - Dissolved	7439-92-1	ND	3.0	ug/l	---	ND	3.0	ug/l	---
Magnesium - Dissolved	7439-95-4	53000	5000	ug/l	---	42000	5000	ug/l	---

Manganese - Dissolved	7439-96-5	64	15	ug/l	---	110	15	ug/l	---
Nickel - Dissolved	7440-02-0	31	40	ug/l	J	ND	40	ug/l	---
Potassium - Dissolved	7440-09-7	7200	5000	ug/l	---	2400	5000	ug/l	J
Selenium - Dissolved	7782-49-2	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Silver - Dissolved	7440-22-4	ND	10	ug/l	---	ND	10	ug/l	---
Sodium - Dissolved	7440-23-5	120000	5000	ug/l	---	31000	5000	ug/l	---
Thallium - Dissolved	7440-28-0	ND	10	ug/l	---	ND	10	ug/l	---
Vanadium - Dissolved	7440-62-2	ND	7.0	ug/l	---	ND	7.0	ug/l	---
Zinc - Dissolved	7440-66-6	27	50	ug/l	UB	ND	50	ug/l	---
OSW-7470A									
Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E200572

Laboratory: TestAmerica - North Canton

Laboratory Submittal: 40552-1

	Sample Name:								
	Lab Sample ID:	AMW-20 (20140807)				DUP-002 (20140807)			
	Sample Date:	240405525				240405526			
		8/7/2014				8/7/2014			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260B									
1,1,1,2-Tetrachloroethane	630-20-6								
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloropropene	563-58-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichloropropane	96-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trimethylbenzene	95-63-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dibromoethane	106-93-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---

1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3,5-Trimethylbenzene	108-67-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichloropropane	142-28-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2,2-Dichloropropane	594-20-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Chlorotoluene	95-49-8	ND	10	ug/l	---	ND	10	ug/l	---
2-Hexanone	591-78-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
4-Chlorotoluene	106-43-4	ND	10	ug/l	---	ND	10	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Acetone	67-64-1	ND	10	ug/l	---	ND	10	ug/l	---
Allyl chloride	107-05-1	ND	10	ug/l	---	ND	10	ug/l	---
Benzene	71-43-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Bromobenzene	108-86-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromochloromethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromodichloromethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	4.6	1.0	ug/l	---	2.0	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dibromomethane	74-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---

Dichlorofluoromethane	75-43-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethyl ether	60-29-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Ethylbenzene	100-41-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
m-Xylene & p-Xylene	179601-23-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Methyl tert butyl ether	1634-04-4	ND	10	ug/l	---	ND	10	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
n-Butylbenzene	104-51-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Propylbenzene	103-65-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene	91-20-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
o-Xylene	95-47-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
p-Isopropyltoluene	99-87-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
sec-Butylbenzene	135-98-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
tert-Butylbenzene	98-06-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrahydrofuran	109-99-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
		ND	1.0	ug/l	---	ND	1.0	ug/l	---

GC/MS SVOC

OSW-8270C

2-Methylnaphthalene	91-57-6								
Acenaphthene	83-32-9								

Acenaphthylene	208-96-8								
Anthracene	120-12-7								
Benzo[a]anthracene	56-55-3								
Benzo[a]pyrene	50-32-8								
Benzo[b]fluoranthene	205-99-2								
Benzo[g,h,i]perylene	191-24-2								
Benzo[k]fluoranthene	207-08-9								
Chrysene	218-01-9								
Dibenz(a,h)anthracene	53-70-3								
Fluoranthene	206-44-0								
Fluorene	86-73-7								
Indeno[1,2,3-cd]pyrene	193-39-5								
Naphthalene	91-20-3								
Phenanthrene	85-01-8								
Pyrene	129-00-0								
Metals									
OSW-6010B									
Aluminum - Dissolved	7429-90-5								
Antimony - Dissolved	7440-36-0	ND	200	ug/l	---	ND	200	ug/l	---
Arsenic - Dissolved	7440-38-2	ND	10	ug/l	---	2.2	10	ug/l	J
Barium - Dissolved	7440-39-3	ND	10	ug/l	---	ND	10	ug/l	---
Beryllium - Dissolved	7440-41-7	160	200	ug/l	J	120	200	ug/l	J
Cadmium - Dissolved	7440-43-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Calcium - Dissolved	7440-70-2	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Chromium - Dissolved	7440-47-3	200000	5000	ug/l	---	160000	5000	ug/l	---
Cobalt - Dissolved	7440-48-4	ND	10	ug/l	---	ND	10	ug/l	---
Copper - Dissolved	7440-50-8	ND	7.0	ug/l	---	ND	7.0	ug/l	---
Iron - Dissolved	7439-89-6	ND	25	ug/l	---	ND	25	ug/l	---
Lead - Dissolved	7439-92-1	380	100	ug/l	---	ND	100	ug/l	---
Magnesium - Dissolved	7439-95-4	ND	3.0	ug/l	---	ND	3.0	ug/l	---

Manganese - Dissolved	7439-96-5	55000	5000	ug/l	---	43000	5000	ug/l	---
Nickel - Dissolved	7440-02-0	1400	15	ug/l	---	110	15	ug/l	---
Potassium - Dissolved	7440-09-7	5.5	40	ug/l	J	ND	40	ug/l	---
Selenium - Dissolved	7782-49-2	3100	5000	ug/l	J	2500	5000	ug/l	J
Silver - Dissolved	7440-22-4	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Sodium - Dissolved	7440-23-5	ND	10	ug/l	---	ND	10	ug/l	---
Thallium - Dissolved	7440-28-0	58000	5000	ug/l	---	32000	5000	ug/l	---
Vanadium - Dissolved	7440-62-2	ND	10	ug/l	---	5.2	10	ug/l	UB
Zinc - Dissolved	7440-66-6	ND	7.0	ug/l	---	ND	7.0	ug/l	---
OSW-7470A		ND	50	ug/l	---	ND	50	ug/l	---
Mercury - Dissolved	7439-97-6								
		ND	0.20	ug/l	---	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E200572

Laboratory: TestAmerica - North Canton

Laboratory Submittal: 40552-1

	Sample Name:	TRIP BLANK				AMW-07 (20140807)			
	Lab Sample ID:	240405527				240405528			
	Sample Date:	8/6/2014				8/7/2014			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260B									
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloropropene	563-58-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichloropropane	96-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trimethylbenzene	95-63-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	2.0	ug/l	---	ND	2.0	ug/l	---
1,2-Dibromoethane	106-93-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---

1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3,5-Trimethylbenzene	108-67-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichloropropane	142-28-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2,2-Dichloropropane	594-20-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorotoluene	95-49-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Hexanone	591-78-6	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorotoluene	106-43-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	10	ug/l	---
Acetone	67-64-1	1.2	10	ug/l	UB	ND	10	ug/l	---
Allyl chloride	107-05-1	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromobenzene	108-86-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromochloromethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromodichloromethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	0.93	1.0	ug/l	J
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dibromomethane	74-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---

Dichlorofluoromethane	75-43-4	ND	1.0	ug/l	---	ND	2.0	ug/l	---
Ethyl ether	60-29-7	ND	1.0	ug/l	---	ND	2.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
m-Xylene & p-Xylene	179601-23-1	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Methyl acetate	79-20-9	ND	10	ug/l	---	ND	10	ug/l	---
Methyl tert butyl ether	1634-04-4	ND	2.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
n-Butylbenzene	104-51-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Propylbenzene	103-65-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene	91-20-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
o-Xylene	95-47-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
p-Isopropyltoluene	99-87-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
sec-Butylbenzene	135-98-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
tert-Butylbenzene	98-06-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrahydrofuran	109-99-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	2.9	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---

GC/MS SVOC

OSW-8270C

2-Methylnaphthalene	91-57-6					ND	9.5	ug/l	---
Acenaphthene	83-32-9					ND	9.5	ug/l	---

Acenaphthylene	208-96-8	ND	9.5	ug/l	---
Anthracene	120-12-7	ND	9.5	ug/l	---
Benzo[a]anthracene	56-55-3	ND	0.19	ug/l	---
Benzo[a]pyrene	50-32-8	ND	9.5	ug/l	---
Benzo[b]fluoranthene	205-99-2	ND	9.5	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	9.5	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	9.5	ug/l	---
Chrysene	218-01-9	ND	9.5	ug/l	---
Dibenz(a,h)anthracene	53-70-3	ND	9.5	ug/l	---
Fluoranthene	206-44-0	ND	9.5	ug/l	---
Fluorene	86-73-7	ND	9.5	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	9.5	ug/l	---
Naphthalene	91-20-3	ND	9.5	ug/l	---
Phenanthrene	85-01-8	ND	9.5	ug/l	---
Pyrene	129-00-0	ND	9.5	ug/l	---

Metals

OSW-6010B

Aluminum - Dissolved	7429-90-5	270	200	ug/l	---
Antimony - Dissolved	7440-36-0	12	10	ug/l	---
Arsenic - Dissolved	7440-38-2	ND	10	ug/l	---
Barium - Dissolved	7440-39-3	32	200	ug/l	J
Beryllium - Dissolved	7440-41-7	0.67	5.0	ug/l	J
Cadmium - Dissolved	7440-43-9	ND	5.0	ug/l	---
Calcium - Dissolved	7440-70-2	130000	5000	ug/l	---
Chromium - Dissolved	7440-47-3	ND	10	ug/l	---
Cobalt - Dissolved	7440-48-4	9.6	7.0	ug/l	---
Copper - Dissolved	7440-50-8	ND	25	ug/l	---
Iron - Dissolved	7439-89-6	ND	100	ug/l	---
Lead - Dissolved	7439-92-1	ND	3.0	ug/l	---
Magnesium - Dissolved	7439-95-4	40000	5000	ug/l	---

Manganese - Dissolved	7439-96-5	110	15	ug/l	---
Nickel - Dissolved	7440-02-0	49	40	ug/l	---
Potassium - Dissolved	7440-09-7	9100	5000	ug/l	---
Selenium - Dissolved	7782-49-2	ND	5.0	ug/l	---
Silver - Dissolved	7440-22-4	ND	10	ug/l	---
Sodium - Dissolved	7440-23-5	67000	5000	ug/l	---
Thallium - Dissolved	7440-28-0	5.2	10	ug/l	UB
Vanadium - Dissolved	7440-62-2	ND	7.0	ug/l	---
Zinc - Dissolved	7440-66-6	110	50	ug/l	---
OSW-7470A					
Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---