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April 13, 2020

Ms. Carrie Stoltz
WDNR
107 Sutliff Avenue
Rhineland, WI 54501

SUBJECT: Perry’s Corners – Groundwater Monitoring Update
N6097 STH 73, Hannibal, WI
WDNR BRRTS# 03-61-168823
PECFA ID # 54433-9753-97

Dear Ms. Stoltz:

Cedar Corporation has completed an additional round of groundwater sampling at the Perry’s Corners site at N6097 STH 73 in Hannibal, WI. This is the 3rd of 4 rounds approved by the Department of Natural Resources in August 2019. An additional sample collected from both the Webster well and the Olson well was also collected to confirm results from the October 2019 sampling round, as approved by WDNR. As the end of the PECFA program is nearing, we want to provide you with the updated groundwater monitoring data, as well as recommendations for future work at the site.

Monitoring Wells

During the last several rounds of groundwater monitoring, the following trends have been observed in monitoring wells throughout the site:

Decreasing	Stable	No NR 140 Exceedances
MW-1	MW-2P	MW-3D
MW-4	MW-6	MW-6D
MW-4P	MW-6P	MW-7
MW-12P	MW-8P	MW-9
		MW-10
		MW-11
		MW-12D
		MW-13
		MW-13D

Over the last several rounds of groundwater monitoring, it was observed that the majority of the monitoring wells and piezometers sampled throughout the site have no exceedances of NR 140 groundwater standards; furthermore, most of these wells with a stable trend and no exceedances are shallow monitoring wells. In addition, no deep piezometers exceed any NR 140 groundwater standards. Three wells historically exhibiting an increasing trend (MW-2P, MW-8P, and 12P, mid-depth piezometers) are now showing more stable concentrations. Also notable is the absence of any detections of PVOCs in either MW-9 or MW-10, indicating that the impacted

groundwater plume has not extended beyond the source property right-of-way to the north or east. Down gradient wells MW-13 and MW-13D located to the south on the Witkowski property also remain unimpacted. See analytical results summarized in the attached Table 1. Analytical Reports are provided in Appendix A.

Private Wells

Both the Olson well (utilized by Glen Webster) on the source property and the Webster well (utilized by the Witkowski residence) have continued to be sampled during each round of monitoring. The October 2019 analytical results showed a concentration of benzene (0.94 ug/L) above the NR 140 PAL in a sample collected from the Webster well at the Witkowski residence. A confirmation sample was collected in November 2019 which showed a similar concentration (1.1 ug/L), again exceeding the NR 140 PAL, as well as the March 2020 round (1.7 ug/L). The Olson well has continued to be sampled and has remained unimpacted.

RECOMMENDATIONS

As all accessible impacted soils on the property have been removed as part of three (3) historic impacted soil excavations, no other remedial actions to reduce groundwater contamination at the site are proposed at this time. Downgradient monitoring wells and the on-site Olson well remain unimpacted and no additional receptors are likely to become impacted. Cedar Corporation recommends submitting this site for closure and utilizing remaining PECFA funds to install a carbon filtration system at the Witkowski residence to address detections of benzene in the Webster well, with the responsibility of maintenance residing upon the owners of the Witkowski property at the conclusion of the PECFA program. A substantial amount of time and funds have historically been spent to secure safe drinking water for this property and no other feasible sources of potable water are available. Please feel free to contact me at 715-235-9081 or anna.beckman@cedarcorp.com should you have any questions or comments regarding the information provided herein.

Sincerely,

CEDAR CORPORATION



Anna Beckman
Staff Geologist

Attachments

Table 1 – Groundwater Analytical Data
Appendix A – Laboratory Analytical Reports

TABLES

**Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI**

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
MW-1	05/31/07	11000	2,200	<80	460	1,500	1,170	4,100
	08/15/07	5800	1,500	<23	340	3,900	1,660	6,300
	10/23/07	8000	1,700	<0.23	390	1,300	1,530	4,900
	1/9/2008	8000	1,500	<5	270	770	1,160	4,000
	3/25/2009	5900	1,900	<23	340	550	1,250	2,900
	6/1/2009	2200	790	<0.50	130	900	550	1,400
	4/15/2010	7000	1,900	<23	360	640	1,390	3,200
	7/13/2010	3900	1,300	<23	250	330	740	1,700
	10/6/2010	1600	620	<4.6	140	120	249	510
	6/3/2011	27	43	<0.23	9	4	12	29
	10/4/2011	41	120	<0.23	24	7.4	15.5	30
	4/24/2012	29.6	88.6	27.4	16.8	41.2	34.4	100
	5/16/2013	200	330	130	86	280	168	520
	10/14/2013	15	41	13	31	6.8	60	36
	6/23/2015	56	220	15	52	14	197	270
	11/19/2015	4.1	17	20	16	2.4	3.9	18
	4/7/2016	13	98	22	35	160	67.8	300
	8/25/2016	3.8	19	7.1	13	1.8	15.3	26
	11/30/2018	20	220	72	72	180	230	470
	4/9/2019	74	520	160	130	240	295	1300
7/3/2019	39	280	33	76	18	120	380	
10/23/2019	0.53	1.2	<0.39	1.1	<0.15	2.39	1.6	
3/24/2020	3.3	95	<0.39	15	10	60.4	220	
MW-2	05/31/07							
	08/15/07	21000	3,700	<23	1,200	41,000	6,400	20,000
	10/23/07	13000	3,500	<92	1,100	38,000	5,200	21,000
	1/9/2008	12000	2,400	<9.2	710	22,000	4,400	17,000
	3/25/2009	10000	2,000	<92	910	28,000	4,100	21,000
	6/1/2009	26000	1,900	<2.0	440	40,000	2,540	15,000
	4/15/2010					FREE PRODUCT		
	7/14/2010					FREE PRODUCT		
	10/6/2010					FREE PRODUCT		
	6/3/2011	17000	2,600	<23	910	41,000	4,460	17,000
	10/4/2011					FREE PRODUCT		
	4/24/2012					FREE PRODUCT		
	5/16/2013					FREE PRODUCT		
	10/14/2013	17,000	2,700	75	1,900	39,000	11,500	26,000
	6/23/2015	19,000	3,800	290	1,600	43,000	6,600	26,000
	11/19/2015	16,000	4,600	980	3,300	92,000	9,300	31,000
	4/7/2016	16000	3400	630	1700	35000	5400	24000
	8/25/2016	15000	3400	970	2400	35000	6000	25000
	11/30/2018					Well Destroyed		
	4/9/2019					Well Destroyed		
7/3/2019					Well Destroyed			
10/23/2019					Well Destroyed			
MW-2P	3/25/2009	70	5.8	<0.50	0.84	39	7.1	31
	6/1/2009	570	71	<0.50	9.6	160	85	460
	4/15/2010	400	6	<1.8	<4	<2	6	9.4
	7/14/2010	1800	160	<1.2	26	41	105	150
	10/6/2010	1100	49	<4.6	20	14	37	53
	6/3/2011	2500	140	<0.23	23	55	68	130
	10/4/2011	620	25	<2.3	6	54	15.9	52
	4/24/2012	2180	164	175	32.8	66.4	88.3	151
	5/16/2013	3800	19	210	56	61	111	200
	10/14/2013	1400	58	14	12	33	45	63
	6/23/2015	2800	96	16	33	86	65.9	120
	11/19/2015	33	3.3	1.3	<2.4	2.4	2.77	4.1
	4/7/2016	390	17	16	<24	27	12	31
	8/25/2016	1500	180	98	61	220	108	260
	11/30/2018	0.85	<0.37	0.40 J	<2.4	0.41 J	0.48 J	<0.58
	4/9/2019	5700	310	300	91	180	251	460
	7/3/2019	16,000	1300	850	280	570	710	1600
10/23/2019	13,000	910	<7.9	170	430	420	990	
3/24/2020	16,000	1000	<7.9	220	670	564	1200	

**Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI**

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes	
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400	
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000	
Monitoring Well	Sample Date								
MW-3	05/31/07	110	4.40	<0.50	<0.25	0.61	0.49	2.50	
	08/15/07	100	3.80	<0.23	<0.5	0.79	1.14	3.20	
	10/23/07	64	2.10	<0.23	<0.5	1.10	<0.44	2.20	
	1/9/2008	190	6	<0.23	<0.5	1	0.24	5.5	
	3/25/2009	220	8.4	<1.2	<2.5	<1.2	<2.15	6.8	
	6/1/2009	230	16	<0.50	1.7	2.6	22.3	6.3	
	4/15/2010	310	36	<0.92	<2	3.1	<1.76	8.3	
	7/14/2010	330	66	<0.92	<2.0	6.8	<1.76	8.9	
	10/6/2010	420	160	<1.2	130	540	560	2,300	
	6/3/2011	200	330	<0.23	69	300	434	1,200	
	10/4/2011	130	570	<2.3	67	67	540	950	
	4/24/2012	161	475	94.5	115	26.5	264	655	
	5/16/2013	110	370	110	190	13	610	1,700	
	10/14/2013	180	360	67	61	7.1	480	350	
	6/23/2015	28	120	32	20	4.7	63	88	
	11/19/2015	60	62	98	94	13	396	310	
	4/7/2016	19	84	48	48	6.5	23.8	70	
8/25/2016	4.9	35	16	17	2.7	38.8	49		
11/30/2018								Well Destroyed	
4/9/2019								Well Destroyed	
7/3/2019								Well Destroyed	
10/23/2019								Well Destroyed	
MW-3D	4/15/2010	<0.25	<0.25	<0.25	<0.25	0.49	<0.25	<0.25	
	7/14/2010	<0.25	<0.22	<0.23	<0.50	0.83	<0.44	<0.39	
	10/6/2010	<0.25	<0.22	<0.23	<0.50	1.7	<0.44	<0.39	
	6/3/2011	0.43	0.41	4.7	3.7	1.60	1.06	2	
	10/4/2011	0.26	<0.22	1.7	<0.50	1.7	<0.44	<0.39	
	4/24/2012	0.44	0.49	0.37	<2.5	0.51	0.72	0.36	
	5/16/2013	0.7	<0.37	0.86	<2.4	<0.33	<0.60	<0.58	
	10/14/2013	<0.36	<0.37	0.87	<2.4	<0.33	<0.67	<0.58	
	6/23/2015								Not Sampled
	11/19/2015								Not Sampled
	4/7/2016								Not Sampled
	8/25/2016								Not Sampled
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
	4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
	7/3/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
	10/23/2019	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
	3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
MW-4	05/31/07	5000	2,100	<40	580	86	760	1,700	
	08/15/07	4300	3,700	<23	1,800	340	10,100	7,500	
	10/23/07	4700	1,800	<9.2	790	330	2,680	3,900	
	1/9/2008	4400	1,500	<9.2	650	250	1910	3200	
	3/25/2009	2000	910	<9.2	490	240	1430	2300	
	6/1/2009	3200	1400	<25	440	240	1590	3200	
	4/15/2010								FREE PRODUCT
	7/14/2010								FREE PRODUCT
	10/6/2010								FREE PRODUCT
	6/3/2011	2500	880	<0.23	450	340	1,680	3,100	
	10/4/2011								FREE PRODUCT
	4/24/2012	3340	1,580	200	840	393	2,422	4,210	
	5/16/2013								FREE PRODUCT
	10/14/2013	4200	710	38	550	920	2100	2700	
	6/23/2015	6300	1300	46	570	1700	2150	3900	
	11/19/2015	3300	540	72	1000	710	1520	2100	
	4/7/2016	2900	490	98	1100	530	1380	2100	
8/25/2016	4500	770	74	970	890	1460	2400		
11/30/2018	5000	580	80	670	490	1130	1700		
4/9/2019	4600	1000	130	1400	700	2500	2800		
7/3/2019	290	800	91	830	320	1520	2100		
10/23/2019	1100	510	<3.9	660	110	4700	1700		
3/24/2020	600	380	<0.79	130	61	1460	840		

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Perrys Corner
Hannibal, WI

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
MW-4P	3/25/2009	180	110	0.77	26	9.3	4.7	8.5
	6/1/2009	980	560	<0.50	93	35	13.9	29
	4/15/2010	290	34	<0.92	6.5	9.4	<1.76	4.1
	7/14/2010	470	120	<0.92	17	15	<1.76	5
	10/6/2010	300	150	<0.92	38	8.9	<1.76	3.2
	6/3/2011	190	86	<0.23	19	3.50	0.35	2.40
	10/4/2011	780	260	<0.46	69	25	7.4	44
	4/24/2012	737	223	100	38.5	16	3.1	24.7
	5/16/2013	1600	210	130	41	21	6.8	23
	10/14/2013	920	350	21	59	28	14.3	53
	6/23/2015	1700	460	13	47	41	11	81
	11/19/2015	140	63	16	20	17	9.3	17
	4/7/2016	32	11	2.3	4.9	3.2	0.86	4.2
	8/25/2016	360	280	81	98	30	73	230
	11/30/2018	800	1400	34	150	43	123	210
	4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
7/3/2019	620	1400	59	200	41	83	230	
10/23/2019	750	1200	<0.39	190 B	63	58.4	190	
3/24/2020	200	380	<0.39	63	10	16.6	68	
MW-5	05/31/07	13000	2,700	<100	590	35,000	2,630	17,000
	08/15/07	12000	2,600	<46	670	31,000	2,360	15,000
	10/23/07	10000	2,700	<92	630	31,000	2,420	16,000
	1/9/2008	13000	2500	<400	740	35000	2150	15,000
	6/1/2009	11000	3000	<2.0	700	38000	2500	18,000
	4/15/2010	9700	2800	<46	800	34000	3960	20,000
	7/12/2010							
Not Sampled-Abandoned.								
MW-6	05/31/07	<0.20	<0.50	<0.50	1.20	0.25	0.27	0.53
	08/15/07	0.45	0.29	<0.23	2.20	0.13	<0.44	0.44
	10/23/07	1	<0.22	<0.23	2.20	<0.11	0.19	0.45
	1/9/2008							
	6/1/2009	NS	NS	NS	NS	NS	NS	NS
	4/15/2010	3.2	0.26	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	2.3	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/6/2010	2.4	0.27	<0.23	<0.50	<0.25	<0.44	<0.39
	6/3/2011							
	10/4/2011	3.3	3.1	<0.23	6.2	<0.25	<0.44	0.54
	4/24/2012	<0.25	5.73	0.33	11	<0.25	<0.50	0.88
	5/16/2013	26	2.4	<0.24	44	<0.33	1.9	<0.58
	10/14/2013	3.7	5.5	1.2	44	<0.33	5.4	<0.58
	6/23/2015	11	5.4	<0.24	20	<0.33	<0.60	<0.58
	11/19/2015	3	6.7	0.42	91	<0.33	5.9	<0.58
	4/7/2016	2.3	3.9	<0.24	74	<0.33	2	<0.58
	8/25/2016	2.1	4.2	<0.24	62	<0.33	4.4	<0.58
	11/30/2018	6.1	9.6	1.7 J	48	<1.7	<1.5	<1.9
	4/9/2019	0.41 J	<0.37	1	<2.4	<0.33	<0.30	3.2
7/3/2019	1.5	1.0	0.72	<2.4	<0.33	<0.30	<0.58	
10/23/2019	1.8	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
3/24/2020								
Not Sampled; under parked car								
MW-6P	3/25/2009	820	1.4	5.6	2.2	2.6	2.6	18
	6/1/2009	7.9	<0.50	11	<0.25	<0.50	<0.40	<0.50
	4/15/2010	330	<0.88	13	<2	<1	<1.76	<1.6
	7/13/2010	57	<0.22	8.3	<0.50	<0.25	<0.44	<0.39
	10/6/2010	3.9	<0.22	7.3	<0.50	<0.25	<0.44	<0.39
	6/3/2011							
	10/4/2011	100	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	4/24/2012	1060	<0.50	36.8	<2.5	1.9	<0.50	<0.25
	5/16/2013	40	<0.37	0.36	<2.4	<0.33	<0.60	<0.58
	10/14/2013	73	<0.37	2.8	<2.4	<0.33	0.6	<0.58
	6/23/2015	6	<0.37	0.98	<2.4	<0.33	<0.60	<0.58
	11/19/2015	5.4	<0.37	0.35	<2.4	<0.33	<0.60	<0.58
	4/7/2016	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	8/25/2016	2.5	<0.37	0.7	<2.4	<0.33	<0.60	<0.58
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	4/9/2019	3.5	6.5	0.51	63	<0.33	4	<0.58
	7/3/2019	5.3	13	0.52	70	<0.33	2.6	<0.58
10/23/2019	<0.15	<0.18	0.79 J	<0.34	<0.15	<0.36	<0.22	
3/24/2020								
Not Sampled; under parked car								

Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
MW-6D	4/15/2010	26	<0.22	0.57	0.57	<0.25	1.1	<0.39
	7/13/2010	9.7	<0.22	0.55	<0.50	0.57	<0.44	<0.39
	10/6/2010	8.6	<0.22	0.52	<0.50	0.56	<0.44	<0.39
	6/3/2011							
	10/4/2011	11	<0.22	1.3	<0.50	0.54	<0.44	<0.39
	4/24/2012	2.52	0.29	0.69	<2.5	<0.25	0.32	0.26
	5/16/2013	<0.36	<0.37	0.81	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	2.1	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	Not Sampled; under parked car						
4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
7/3/2019	<0.36	<0.37	0.87	<2.4	<0.33	<0.30	<0.58	
10/23/2019	<0.15	<0.18	0.79 J	<0.34	<0.15	<0.36	<0.22	
3/24/2020	Not Sampled; under parked car							
MW-7	5/31/2007	0.28	<0.50	<0.50	<0.25	<0.20	<0.40	<0.50
	8/15/2007	0.54	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	10/23/2007	<0.25	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	1/9/2008	0.48	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	6/1/2009	NS	NS	NS	NS	NS	NS	NS
	4/15/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/6/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	6/3/2011	0.69	<0.22	0.63	1.2	<0.25	<0.44	<0.39
	10/4/2011	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	<0.25	<2.5	<0.25	<0.50	<0.25
	5/16/2013	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	2.4	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
7/3/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58	
10/23/2019	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
MW-8P	05/31/07	3600	160	22.00	2.80	27	6.40	15
	08/15/07	3500	<8.8	29.00	<20	9.20	<17.6	<16
	10/23/07	5000	480	<9.2	61	62	31.00	34
	1/9/2008	3900	5.7	26	1	11	1.66	5.8
	3/25/2009	3400	<18	26	98	<20	<35	<1.9
	6/1/2009	5900	170	<20	24	51	13.2	<20
	4/15/2010	6400	350	<23	53	63	<44	54
	7/13/2010	5700	430	<0.92	16	69	14.2	57
	10/6/2010	4200	63	<0.23	13	52	10.9	45
	6/3/2011	890	3.70	6.40	0.72	3.10	0.29	2
	10/4/2011	1400	11	11	4.9	6	<3.5	8.8
	4/24/2012	4700	9.25	289	3.89	14.3	0.67	4.4
	5/16/2013	5200	77	120	3.1	15	0.96	5.8
	10/14/2013	4600	8.7	260	<2.4	15	<0.60	3.4
	6/23/2015	5200	530	68	20	14	46	170
	11/19/2015	620	380	510	6.4	14	7.5	34
	4/7/2016	2600	120	<0.24	<2.4	7.2	<0.60	8
	8/25/2016	2500	140	<0.24	<2.4	7.9	<0.60	5.8
	11/30/2018	13	<0.37	1.8	<2.4	<0.33	<0.30	<0.58
	4/9/2019	140	120	66	6	2.2	0.31 J	4.3
7/3/2019	92	90	28	5.5	1.2	<0.30	2.9	
10/23/2019	300	190	<0.39	<0.34	2.3	<0.36	2.8	
3/24/2020	170	96	<0.39	0.36 J	1.8	<0.36	2.3	

**Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI**

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
MW-9	10/23/07	<0.20	<0.50	<0.50	<0.25	<0.20	<0.40	<0.50
	1/9/2008	<0.25	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	6/1/2009	NS	NS	NS	NS	NS	NS	NS
	4/15/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/6/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	6/3/2011	0.28	<0.22	1.7	<0.50	<0.25	<0.44	<0.39
	10/4/2011	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	<0.25	<2.5	<0.25	<0.50	<0.25
	5/16/2013	<0.36	<0.37	0.53	<2.4	<0.33	0.4	<0.58
	10/14/2013	<0.36	<0.37	0.61	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	4/9/2019	Not Sampled-Frozen						
	7/3/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	10/23/2019	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
	3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
MW-10	10/23/07	<0.20	<0.50	<0.50	<0.25	<0.20	<0.40	<0.50
	1/9/2008	0.41	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	6/1/2009	NS	NS	NS	NS	NS	NS	NS
	4/15/2010	<0.25	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	7/13/2010	<0.25	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	10/6/2010	<0.25	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	6/3/2011	<0.25	<0.22	1.3	<0.50	<0.11	<0.44	<0.39
	10/4/2011	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	<0.25	<2.5	<0.25	<0.50	<0.25
	5/16/2013	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	1.7	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	0.6	<0.58
	7/3/2019	<0.36	<0.37	1.3	<2.4	<0.33	<0.30	<0.58
	10/23/2019	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
	3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
MW-11	10/23/07	<0.20	<0.50	<0.50	<0.25	<0.20	<0.40	<0.50
	1/9/2008	<0.25	<0.22	<0.23	<0.50	<0.11	<0.44	<0.39
	6/1/2009	NS	NS	NS	NS	NS	NS	NS
	4/15/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/6/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	6/3/2011	<0.25	<0.22	1.4	<0.50	<0.11	<0.44	<0.39
	10/4/2011	<0.25	<0.22	0.99	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	<0.25	<2.5	<0.25	<0.50	<0.25
	5/16/2013	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	0.49	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.33	<0.58
	4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	7/3/2019	<0.36	<0.37	0.44 J	<2.4	<0.33	<0.30	<0.58
	10/23/2019	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
	3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22

Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
MW-12P	10/23/07	1800	<2.0	22	<1.0	6.60	<0.80	4.70
	1/9/2008	1500	<0.22	22	<0.50	4.2	0.85	4.7
	3/25/2009	820	<2.2	10	<5.0	<0.25	<4.4	<3.9
	6/1/2009	660	<0.50	7.2	<0.25	0.94	16.1	1.4
	4/15/2010	1000	<4.4	<4.6	<10	7.2	<8.8	<7.8
	7/13/2010	960	<2.2	<2.3	<5.0	<.25	<0.44	<0.39
	10/6/2010	940	19	<0.23	<0.50	5.9	3.3	8.5
	6/3/2011	460	38	<0.92	3	5.4	<0.44	5
	10/4/2011	390	51	<0.92	9.5	4.2	<1.76	4.9
	4/24/2012	<0.25	26.8	36.1	<2.5	<0.25	1.13	1.2
	5/16/2013	23	<0.37	11	<2.4	0.48	<0.60	<0.58
	10/14/2013	17	1.1	15	<2.4	0.69	0.43	0.79
	6/23/2015	110	0.58	33	<2.4	0.41	<0.60	1.2
	11/19/2015	210	1.2	65	4.1	1.1	0.45	2
	4/7/2016	320	0.91	63	<2.4	0.81	<0.60	<0.58
	8/25/2016	360	0.57	64	<2.4	0.94	<0.60	0.99
	11/30/2018	11	<0.37	7.4	<2.4	<0.33	<0.30	<0.58
4/9/2019	8.3	<0.37	23	<2.4	<0.33	<0.30	<0.58	
7/3/2019	31	1.1	23	<2.4	0.81	0.5	2.4	
10/23/2019	180	1.8	12	<0.34	0.85	1.61 J	1.4	
3/24/2020	12	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
MW-12D	4/15/2010	3.5	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	27	<0.22	0.79	<0.50	<0.25	<0.44	<0.39
	10/6/2010	0.36	<0.22	0.64	<0.50	<0.25	<0.44	<0.39
	6/3/2011	<0.25	<0.22	2.2	<0.50	<0.25	<0.44	<0.39
	10/4/2011	<0.25	<0.22	2.7	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	0.48	<2.5	<0.25	<0.50	<0.25
	5/16/2013	1.3	<0.37	0.26	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	2	<2.4	<0.33	<0.60	<0.58
	6/23/2015	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	11/19/2015	<0.36	<0.37	<0.24	<2.4	<0.33	0.53	1.2
	4/7/2016	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	8/25/2016	<0.36	<0.37	0.29	<2.4	<0.33	<0.60	<0.58
	11/30/2018	<0.36	<0.37	0.49 J	<2.4	<0.33	<0.30	<0.58
	4/9/2019	<0.36	<0.37	0.34 J	<2.4	<0.33	<0.30	<0.58
	7/3/2019	<0.36	<0.37	0.65	<2.4	<0.33	<0.30	<0.58
	10/23/2019	<0.15	<0.18	0.86 J	<0.34	<0.15	<0.36	<0.22
	3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
MW-13	4/15/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/6/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	6/3/2011	<0.25	<0.22	3.4	<0.50	<0.25	<0.44	<0.39
	10/4/2011	<0.25	<0.22	1	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	<0.25	<2.5	<0.25	<0.50	<0.25
	5/16/2013	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	3.4	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	7/3/2019	<0.36	<0.37	0.61	<2.4	<0.33	<0.30	<0.58
	10/23/2019	<0.15	<0.18	0.86 J	<0.34	<0.15	<0.36	<0.22
	3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22

Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		0.5	140	12	10	160	96	400
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
MW-13D	4/15/2010	0.69	<0.22	2.2	<0.50	<0.25	<0.44	<0.39
	7/13/2010	2.7	<0.22	2.1	<0.50	0.26	<0.44	<0.39
	10/6/2010	0.83	<0.22	1.9	<0.50	0.29	<0.44	<0.39
	6/3/2011	0.36	<0.22	2.2	<0.50	<0.25	1.2	<0.39
	10/4/2011	0.97	<0.22	3.6	<0.50	0.29	<0.44	<0.39
	4/24/2012	<0.25	<0.25	1.65	<2.5	0.27	<0.50	<0.25
	5/16/2013	<0.36	<0.37	0.82	<2.4	<0.33	<0.60	<0.58
	10/14/2013	<0.36	<0.37	3.2	<2.4	<0.33	<0.60	<0.58
	6/23/2015	Not Sampled						
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	<0.36	<0.37	0.57	<2.4	<0.33	<0.30	<0.58
4/9/2019	<0.36	<0.37	0.43 J	<2.4	<0.33	<0.30	<0.58	
7/3/2019	<0.36	<0.37	1.2	<2.4	<0.33	<0.30	<0.58	
10/23/2019	<0.15	<0.18	0.71 J	<0.34	<0.15	<0.36	<0.22	
3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
N. Sump	10/6/2010	Not Sampled						
	6/3/2011	Not Sampled						
	10/4/2011	Not Sampled						
	4/24/2012	Not Sampled						
	5/16/2013	Not Sampled						
	10/14/2013	Not Sampled						
	6/23/2015	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	Not Sampled						
	4/9/2019	Not Sampled						
	7/3/2019	Not Sampled						
10/23/2019	Not Sampled							
S. Sump	10/6/2010	Not Sampled						
	6/3/2011	Not Sampled						
	10/4/2011	Not Sampled						
	4/24/2012	Not Sampled						
	5/16/2013	Not Sampled						
	10/14/2013	Not Sampled						
	6/23/2015	60	18	<0.24	<2.4	1.3	6.8	50
	11/19/2015	Not Sampled						
	4/7/2016	Not Sampled						
	8/25/2016	Not Sampled						
	11/30/2018	Not Sampled						
	4/9/2019	Not Sampled						
	7/3/2019	Not Sampled						
10/23/2019	Not Sampled							
Olson's Well	3/25/2009	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	6/1/2009	<0.20	<0.50	<0.50	<0.25	<0.50	<0.40	<0.50
	4/15/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	7/13/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/6/2010	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	10/4/2011	<0.25	<0.22	<0.23	<0.50	<0.25	<0.44	<0.39
	4/24/2012	<0.25	<0.25	<0.25	<2.5	<0.25	<0.50	<0.25
	5/16/2013	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	6/23/2015	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	4/7/2016	<0.36	<0.37	<0.24	<2.4	<0.33	<0.60	<0.58
	11/30/2018	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	4/9/2019	<0.36	<0.37	<0.24	<2.4	<0.33	<0.30	<0.58
	7/3/2019	<0.36	<0.37	0.25 J	<2.4	<0.33	<0.30	<0.58
10/23/2019	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
11/20/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	
3/24/2020	<0.15	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22	

**Table 1: Groundwater Analytical Data
Perrys Corner
Hannibal, WI**

Results reported in ug/L		Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	Total TMB	Xylenes
Wis Adm. Code NR140, Table 1 PAL		<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>
Wis Adm. Code NR140, Table 1 ES		5	700	60	100	800	480	2000
Monitoring Well	Sample Date							
Webster Well	6/1/2016	<0.15	<0.18	<0.39	<0.34	<0.15	<0.61	<0.22
	10/31/2016	<0.15	<0.18	<0.39	<0.34	<0.15	<0.61	<0.22
	4/9/2019	<0.36	<0.37	4.9	<2.4	<0.33	<0.30	<0.58
	10/23/2019	<i>0.94</i>	<0.18	1	<0.34	<0.15	<0.36	<0.22
	11/20/2019	<i>1.1</i>	<0.18	<0.39	<0.34	<0.15	<0.36	<0.22
	3/24/2020	<i>1.7</i>	<0.18	1.1	<0.34	<0.15	<0.36	<0.22
Witkowski's Well	3/25/2009	65	<0.22	1.9	<0.50	<0.25	<0.44	<0.39
	6/1/2009	69	<0.50	1.6	<0.25	<0.50	<0.40	<0.50
	4/15/2010	77	<0.22	2.2	<0.50	<0.25	<0.44	<0.39
	7/13/2010	19	<0.22	2.0	<0.50	<0.25	<0.44	<0.39
	10/6/2010	60	<0.22	2.0	<0.50	<0.25	<0.44	<0.39
	10/4/2011	61	<0.22	5	<0.50	<0.25	<0.44	<0.39
	4/24/2012	55.5	<0.25	2.45	<2.5	<0.25	<0.50	<0.25
	5/16/2013	72	<0.37	2.7	<2.4	<0.33	<0.60	<0.58
	6/23/2015	23	<0.37	3.4	<2.4	<0.33	<0.60	<0.58
	4/7/2016	18	<0.37	2.7	<2.4	<0.33	<0.60	<0.58
Abandoned 11/2017								

ug/L = micrograms per liter = ppb = parts per billion
 J = reported value was between the limit of detection and the limit of quantitation
 B = Compound was found in the blank and the sample
Italic Numbers indicate a concentration above PAL outlined in NR 140.10
Bold Numbers indicate a concentration above ES outlined in NR 140.10

APPENDIX A – Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-173998-1
Client Project/Site: Olson Corners

For:
Cedar Corporation
604 Wilson Avenue
Menomonie, Wisconsin 54751

Attn: Mitch Evenson



Authorized for release by:
12/3/2019 9:29:40 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Job ID: 500-173998-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-173998-1

Comments

No additional comments.

Receipt

The samples were received on 11/22/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.5° C.

GC/MS VOA

Method 8260B: The method blank for analytical batch 518320 contained Naphthalene above the Method detection limit (MDL) but below reporting limit (RL). Naphthalene was non-detect in the samples: therefore, no re-analysis was done and the data has been reported.

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

Detection Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Client Sample ID: Webster

Lab Sample ID: 500-173998-1

No Detections.

Client Sample ID: Witkowski

Lab Sample ID: 500-173998-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		0.50	0.15	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-173998-1	Webster	Water	11/20/19 09:30	11/22/19 09:00	
500-173998-2	Witkowski	Water	11/20/19 09:45	11/22/19 09:00	

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Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Client Sample ID: Webster

Lab Sample ID: 500-173998-1

Date Collected: 11/20/19 09:30

Matrix: Water

Date Received: 11/22/19 09:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			12/03/19 11:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/03/19 11:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/03/19 11:57	1
Naphthalene	<0.34		1.0	0.34	ug/L			12/03/19 11:57	1
Toluene	<0.15		0.50	0.15	ug/L			12/03/19 11:57	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			12/03/19 11:57	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			12/03/19 11:57	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			12/03/19 11:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124		12/03/19 11:57	1
Dibromofluoromethane (Surr)	99		75 - 120		12/03/19 11:57	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		12/03/19 11:57	1
Toluene-d8 (Surr)	112		75 - 120		12/03/19 11:57	1

Client Sample ID: Witkowski

Lab Sample ID: 500-173998-2

Date Collected: 11/20/19 09:45

Matrix: Water

Date Received: 11/22/19 09:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.1		0.50	0.15	ug/L			12/03/19 12:21	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/03/19 12:21	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/03/19 12:21	1
Naphthalene	<0.34		1.0	0.34	ug/L			12/03/19 12:21	1
Toluene	<0.15		0.50	0.15	ug/L			12/03/19 12:21	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			12/03/19 12:21	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			12/03/19 12:21	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			12/03/19 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		72 - 124		12/03/19 12:21	1
Dibromofluoromethane (Surr)	99		75 - 120		12/03/19 12:21	1
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		12/03/19 12:21	1
Toluene-d8 (Surr)	118		75 - 120		12/03/19 12:21	1

Definitions/Glossary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

GC/MS VOA

Analysis Batch: 518320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173998-1	Webster	Total/NA	Water	8260B	
500-173998-2	Witkowski	Total/NA	Water	8260B	
MB 500-518320/6	Method Blank	Total/NA	Water	8260B	
LCS 500-518320/4	Lab Control Sample	Total/NA	Water	8260B	

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Surrogate Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-173998-1	Webster	89	99	100	112
500-173998-2	Witkowski	90	99	101	118
LCS 500-518320/4	Lab Control Sample	76	103	105	113
MB 500-518320/6	Method Blank	89	106	111	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-518320/6
Matrix: Water
Analysis Batch: 518320

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			12/03/19 10:22	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/03/19 10:22	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/03/19 10:22	1
Naphthalene	0.412	J	1.0	0.34	ug/L			12/03/19 10:22	1
Toluene	<0.15		0.50	0.15	ug/L			12/03/19 10:22	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			12/03/19 10:22	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			12/03/19 10:22	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			12/03/19 10:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124		12/03/19 10:22	1
Dibromofluoromethane (Surr)	106		75 - 120		12/03/19 10:22	1
1,2-Dichloroethane-d4 (Surr)	111		75 - 126		12/03/19 10:22	1
Toluene-d8 (Surr)	102		75 - 120		12/03/19 10:22	1

Lab Sample ID: LCS 500-518320/4
Matrix: Water
Analysis Batch: 518320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.8		ug/L		98	70 - 120
Ethylbenzene	50.0	54.8		ug/L		110	70 - 123
Methyl tert-butyl ether	50.0	50.1		ug/L		100	55 - 123
Naphthalene	50.0	41.7		ug/L		83	53 - 144
Toluene	50.0	51.7		ug/L		103	70 - 125
1,2,4-Trimethylbenzene	50.0	46.1		ug/L		92	70 - 123
1,3,5-Trimethylbenzene	50.0	41.2		ug/L		82	70 - 123
Xylenes, Total	100	107		ug/L		107	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	76		72 - 124
Dibromofluoromethane (Surr)	103		75 - 120
1,2-Dichloroethane-d4 (Surr)	105		75 - 126
Toluene-d8 (Surr)	113		75 - 120

Lab Chronicle

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Client Sample ID: Webster

Date Collected: 11/20/19 09:30

Date Received: 11/22/19 09:00

Lab Sample ID: 500-173998-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	518320	12/03/19 11:57	JLC	TAL CHI

Client Sample ID: Witkowski

Date Collected: 11/20/19 09:45

Date Received: 11/22/19 09:00

Lab Sample ID: 500-173998-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	518320	12/03/19 12:21	JLC	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-173998-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State Program	999580010	08-31-20

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins Environment Testing
TestAmerica

Client Information		Sampler: AMB		Lab PM: Fredrick, Sandie		Carrier Tracking No(s): 71254941 3395		COC No: 500-77013-35747.1	
Client Contact: Mitch Evenson		Phone: 715-235-9081		E-Mail: sandie.fredrick@testamericainc.com				Page: Page 1 of 1	
Company: Cedar Corporation					Analysis Requested				
Address: 604 Wilson Avenue			Due Date Requested:		Job #: _____ Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDTA Z - other (specify) Other: _____				
City: Menomonie			TAT Requested (days):						
State, Zip: WI, 54751			PO #:						
Phone: 715-235-9081 (Tel)			Purchase Order not required						
Email: mitch_evenson@cedarcorp.com			WO #:						
Project Name: Olson Corners			Project #: 50006557						
Site: Hannibal, WI			SSOW#:						
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Performed MS/MSD (Yes or No)	Total Number of Containers	
								Special Instructions/Note:	
1 Webster		11/20/19	0930	G	Water	U	X		
2 Witkowski		11/20/19	0945	G	Water	U	X		
					Water				
					Water				
					Water				
					Water				
					Water				
					Water				
					Water				
					Water				
					Water				
					Water				
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: Anna Beckman		Date/Time: 11/20/19 0900		Company: Cedar		Received by: Paula Buckley		Date/Time: 11/22/19 0900	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 5.5					

Field Filtered Sample (Yes or No)

Performed MS/MSD (Yes or No)



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ORIGIN ID:RRLA (715) 235-9081
MITCH EVENSON
CEDAR CORPORATION
604 WILSON AVE

MENOMONIE, WI 54751
UNITED STATES US

SHIP DATE: 12NOV19
ACTWTG: 20.00 LB MAN
CAD: 525155/CAFE3211

TO

TESTAMERICA CHICAGO
2417 BOND STREET

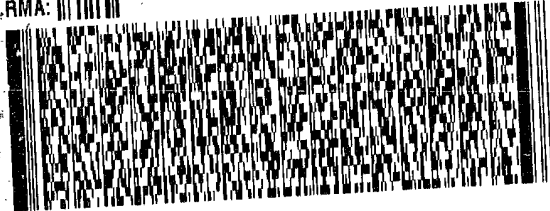
UNIVERSITY PARK IL 60484-3101

(708) 634-5200

REF:

DEPT:

RMA: ||| ||| |||



FedEx
Express



318711 15080501 W

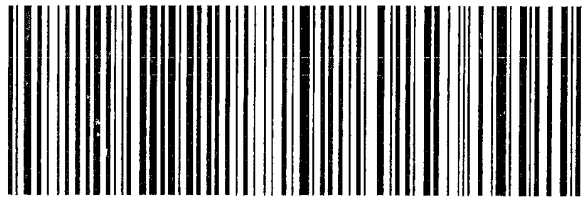
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TRK#
0221 7125 4941 3395

RETURNS MON-SAT
FRI - 22 NOV 10:30A
PRIORITY OVERNIGHT

GE JOTA

60484
IL-US
ORD



FD 543099 21NOV19 EAM 56AC1/F330/05A2



500-173998 Waybill

Login Sample Receipt Checklist

Client: Cedar Corporation

Job Number: 500-173998-1

Login Number: 173998

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-179872-1
Client Project/Site: Olson Corners

For:

Cedar Corporation
604 Wilson Avenue
Menomonie, Wisconsin 54751

Attn: Mitch Evenson



Authorized for release by:
4/6/2020 8:33:31 AM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Job ID: 500-179872-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-179872-1**

Comments

No additional comments.

Receipt

The samples were received on 3/26/2020 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

Receipt Exceptions

Received 1 VOA vial for sample 1 with headspace.

GC/MS VOA

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-2P (500-179872-2) and MW-4 (500-179872-4). Elevated reporting limits (RLs) are provided.

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

Detection Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-1

Lab Sample ID: 500-179872-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.3		0.50	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	95		0.50	0.18	ug/L	1		8260B	Total/NA
Naphthalene	15		1.0	0.34	ug/L	1		8260B	Total/NA
Toluene	10		0.50	0.15	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	55		1.0	0.36	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	5.4		1.0	0.25	ug/L	1		8260B	Total/NA
Xylenes, Total	220		1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW-2P

Lab Sample ID: 500-179872-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1000		10	3.7	ug/L	20		8260B	Total/NA
Naphthalene	220		20	6.7	ug/L	20		8260B	Total/NA
Toluene	670		10	3.0	ug/L	20		8260B	Total/NA
1,2,4-Trimethylbenzene	480		20	7.2	ug/L	20		8260B	Total/NA
1,3,5-Trimethylbenzene	84		20	5.1	ug/L	20		8260B	Total/NA
Xylenes, Total	1200		20	4.4	ug/L	20		8260B	Total/NA
Benzene - DL	16000		100	29	ug/L	200		8260B	Total/NA

Client Sample ID: MW-3D

Lab Sample ID: 500-179872-3

No Detections.

Client Sample ID: MW-4

Lab Sample ID: 500-179872-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	380		1.0	0.37	ug/L	2		8260B	Total/NA
Naphthalene	130		2.0	0.67	ug/L	2		8260B	Total/NA
Toluene	61		1.0	0.30	ug/L	2		8260B	Total/NA
Benzene - DL	600		10	2.9	ug/L	20		8260B	Total/NA
1,2,4-Trimethylbenzene - DL	620		20	7.2	ug/L	20		8260B	Total/NA
1,3,5-Trimethylbenzene - DL	840		20	5.1	ug/L	20		8260B	Total/NA
Xylenes, Total - DL	840		20	4.4	ug/L	20		8260B	Total/NA

Client Sample ID: MW-4P

Lab Sample ID: 500-179872-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	63		1.0	0.34	ug/L	1		8260B	Total/NA
Toluene	10		0.50	0.15	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	15		1.0	0.36	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	1.6		1.0	0.25	ug/L	1		8260B	Total/NA
Xylenes, Total	68		1.0	0.22	ug/L	1		8260B	Total/NA
Benzene - DL	200		5.0	1.5	ug/L	10		8260B	Total/NA
Ethylbenzene - DL	380		5.0	1.8	ug/L	10		8260B	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 500-179872-6

No Detections.

Client Sample ID: MW-8P

Lab Sample ID: 500-179872-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	170		0.50	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	96		0.50	0.18	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-8P (Continued)

Lab Sample ID: 500-179872-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.36	J	1.0	0.34	ug/L	1		8260B	Total/NA
Toluene	1.8		0.50	0.15	ug/L	1		8260B	Total/NA
Xylenes, Total	2.3		1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 500-179872-8

No Detections.

Client Sample ID: MW-10

Lab Sample ID: 500-179872-9

No Detections.

Client Sample ID: MW-11

Lab Sample ID: 500-179872-10

No Detections.

Client Sample ID: MW-12P

Lab Sample ID: 500-179872-11

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	12		0.50	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: MW-12D

Lab Sample ID: 500-179872-12

No Detections.

Client Sample ID: MW-13

Lab Sample ID: 500-179872-13

No Detections.

Client Sample ID: MW-13D

Lab Sample ID: 500-179872-14

No Detections.

Client Sample ID: Webster

Lab Sample ID: 500-179872-15

No Detections.

Client Sample ID: Witkowski

Lab Sample ID: 500-179872-16

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.7		0.50	0.15	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.1		1.0	0.39	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-179872-1	MW-1	Ground Water	03/24/20 11:00	03/26/20 09:10	
500-179872-2	MW-2P	Ground Water	03/24/20 10:00	03/26/20 09:10	
500-179872-3	MW-3D	Ground Water	03/24/20 10:15	03/26/20 09:10	
500-179872-4	MW-4	Ground Water	03/24/20 10:30	03/26/20 09:10	
500-179872-5	MW-4P	Ground Water	03/24/20 10:35	03/26/20 09:10	
500-179872-6	MW-7	Ground Water	03/24/20 11:40	03/26/20 09:10	
500-179872-7	MW-8P	Ground Water	03/24/20 11:30	03/26/20 09:10	
500-179872-8	MW-9	Ground Water	03/24/20 09:45	03/26/20 09:10	
500-179872-9	MW-10	Ground Water	03/24/20 09:30	03/26/20 09:10	
500-179872-10	MW-11	Ground Water	03/24/20 12:00	03/26/20 09:10	
500-179872-11	MW-12P	Ground Water	03/24/20 12:10	03/26/20 09:10	
500-179872-12	MW-12D	Ground Water	03/24/20 11:50	03/26/20 09:10	
500-179872-13	MW-13	Ground Water	03/24/20 12:30	03/26/20 09:10	
500-179872-14	MW-13D	Ground Water	03/24/20 12:40	03/26/20 09:10	
500-179872-15	Webster	Drinking Water	03/24/20 09:15	03/26/20 09:10	
500-179872-16	Witkowski	Drinking Water	03/24/20 12:45	03/26/20 09:10	

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-1

Lab Sample ID: 500-179872-1

Date Collected: 03/24/20 11:00

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.3		0.50	0.15	ug/L			04/03/20 13:27	1
Ethylbenzene	95		0.50	0.18	ug/L			04/03/20 13:27	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/03/20 13:27	1
Naphthalene	15		1.0	0.34	ug/L			04/03/20 13:27	1
Toluene	10		0.50	0.15	ug/L			04/03/20 13:27	1
1,2,4-Trimethylbenzene	55		1.0	0.36	ug/L			04/03/20 13:27	1
1,3,5-Trimethylbenzene	5.4		1.0	0.25	ug/L			04/03/20 13:27	1
Xylenes, Total	220		1.0	0.22	ug/L			04/03/20 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124		04/03/20 13:27	1
Dibromofluoromethane (Surr)	94		75 - 120		04/03/20 13:27	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		04/03/20 13:27	1
Toluene-d8 (Surr)	94		75 - 120		04/03/20 13:27	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-2P

Lab Sample ID: 500-179872-2

Date Collected: 03/24/20 10:00

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1000		10	3.7	ug/L			04/01/20 11:59	20
Methyl tert-butyl ether	<7.9		20	7.9	ug/L			04/01/20 11:59	20
Naphthalene	220		20	6.7	ug/L			04/01/20 11:59	20
Toluene	670		10	3.0	ug/L			04/01/20 11:59	20
1,2,4-Trimethylbenzene	480		20	7.2	ug/L			04/01/20 11:59	20
1,3,5-Trimethylbenzene	84		20	5.1	ug/L			04/01/20 11:59	20
Xylenes, Total	1200		20	4.4	ug/L			04/01/20 11:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		04/01/20 11:59	20
Dibromofluoromethane (Surr)	99		75 - 120		04/01/20 11:59	20
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		04/01/20 11:59	20
Toluene-d8 (Surr)	95		75 - 120		04/01/20 11:59	20

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	16000		100	29	ug/L			04/01/20 12:27	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		04/01/20 12:27	200
Dibromofluoromethane (Surr)	100		75 - 120		04/01/20 12:27	200
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		04/01/20 12:27	200
Toluene-d8 (Surr)	93		75 - 120		04/01/20 12:27	200

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-3D

Lab Sample ID: 500-179872-3

Date Collected: 03/24/20 10:15

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 12:54	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 12:54	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 12:54	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 12:54	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 12:54	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 12:54	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 12:54	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 12:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124		04/01/20 12:54	1
Dibromofluoromethane (Surr)	100		75 - 120		04/01/20 12:54	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		04/01/20 12:54	1
Toluene-d8 (Surr)	94		75 - 120		04/01/20 12:54	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-4
Date Collected: 03/24/20 10:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-4
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	380		1.0	0.37	ug/L			04/01/20 13:21	2
Methyl tert-butyl ether	<0.79		2.0	0.79	ug/L			04/01/20 13:21	2
Naphthalene	130		2.0	0.67	ug/L			04/01/20 13:21	2
Toluene	61		1.0	0.30	ug/L			04/01/20 13:21	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		72 - 124		04/01/20 13:21	2
Dibromofluoromethane (Surr)	99		75 - 120		04/01/20 13:21	2
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		04/01/20 13:21	2
Toluene-d8 (Surr)	97		75 - 120		04/01/20 13:21	2

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	600		10	2.9	ug/L			04/01/20 13:48	20
1,2,4-Trimethylbenzene	620		20	7.2	ug/L			04/01/20 13:48	20
1,3,5-Trimethylbenzene	840		20	5.1	ug/L			04/01/20 13:48	20
Xylenes, Total	840		20	4.4	ug/L			04/01/20 13:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124		04/01/20 13:48	20
Dibromofluoromethane (Surr)	98		75 - 120		04/01/20 13:48	20
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		04/01/20 13:48	20
Toluene-d8 (Surr)	93		75 - 120		04/01/20 13:48	20

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-4P

Lab Sample ID: 500-179872-5

Date Collected: 03/24/20 10:35

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 14:15	1
Naphthalene	63		1.0	0.34	ug/L			04/01/20 14:15	1
Toluene	10		0.50	0.15	ug/L			04/01/20 14:15	1
1,2,4-Trimethylbenzene	15		1.0	0.36	ug/L			04/01/20 14:15	1
1,3,5-Trimethylbenzene	1.6		1.0	0.25	ug/L			04/01/20 14:15	1
Xylenes, Total	68		1.0	0.22	ug/L			04/01/20 14:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124		04/01/20 14:15	1
Dibromofluoromethane (Surr)	95		75 - 120		04/01/20 14:15	1
1,2-Dichloroethane-d4 (Surr)	92		75 - 126		04/01/20 14:15	1
Toluene-d8 (Surr)	96		75 - 120		04/01/20 14:15	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	200		5.0	1.5	ug/L			04/01/20 14:42	10
Ethylbenzene	380		5.0	1.8	ug/L			04/01/20 14:42	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		04/01/20 14:42	10
Dibromofluoromethane (Surr)	99		75 - 120		04/01/20 14:42	10
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		04/01/20 14:42	10
Toluene-d8 (Surr)	94		75 - 120		04/01/20 14:42	10

Client Sample Results

Client: Cedar Corporation
 Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-7
Date Collected: 03/24/20 11:40
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-6
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 15:10	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 15:10	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 15:10	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 15:10	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 15:10	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 15:10	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 15:10	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124					04/01/20 15:10	1
Dibromofluoromethane (Surr)	99		75 - 120					04/01/20 15:10	1
1,2-Dichloroethane-d4 (Surr)	99		75 - 126					04/01/20 15:10	1
Toluene-d8 (Surr)	94		75 - 120					04/01/20 15:10	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-8P
Date Collected: 03/24/20 11:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-7
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	170		0.50	0.15	ug/L			04/01/20 15:37	1
Ethylbenzene	96		0.50	0.18	ug/L			04/01/20 15:37	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 15:37	1
Naphthalene	0.36	J	1.0	0.34	ug/L			04/01/20 15:37	1
Toluene	1.8		0.50	0.15	ug/L			04/01/20 15:37	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 15:37	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 15:37	1
Xylenes, Total	2.3		1.0	0.22	ug/L			04/01/20 15:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124					04/01/20 15:37	1
Dibromofluoromethane (Surr)	100		75 - 120					04/01/20 15:37	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 126					04/01/20 15:37	1
Toluene-d8 (Surr)	95		75 - 120					04/01/20 15:37	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-9

Lab Sample ID: 500-179872-8

Date Collected: 03/24/20 09:45

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 16:04	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 16:04	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 16:04	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 16:04	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 16:04	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 16:04	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 16:04	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124					04/01/20 16:04	1
Dibromofluoromethane (Surr)	101		75 - 120					04/01/20 16:04	1
1,2-Dichloroethane-d4 (Surr)	101		75 - 126					04/01/20 16:04	1
Toluene-d8 (Surr)	93		75 - 120					04/01/20 16:04	1

Client Sample Results

Client: Cedar Corporation
 Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-10
Date Collected: 03/24/20 09:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-9
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 16:32	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 16:32	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 16:32	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 16:32	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 16:32	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 16:32	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 16:32	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 16:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124					04/01/20 16:32	1
Dibromofluoromethane (Surr)	102		75 - 120					04/01/20 16:32	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 126					04/01/20 16:32	1
Toluene-d8 (Surr)	93		75 - 120					04/01/20 16:32	1

Client Sample Results

Client: Cedar Corporation
 Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-11
Date Collected: 03/24/20 12:00
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-10
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 16:59	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 16:59	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 16:59	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 16:59	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 16:59	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 16:59	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 16:59	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 16:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124					04/01/20 16:59	1
Dibromofluoromethane (Surr)	102		75 - 120					04/01/20 16:59	1
1,2-Dichloroethane-d4 (Surr)	103		75 - 126					04/01/20 16:59	1
Toluene-d8 (Surr)	93		75 - 120					04/01/20 16:59	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-12P

Lab Sample ID: 500-179872-11

Date Collected: 03/24/20 12:10

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	12		0.50	0.15	ug/L			04/01/20 17:27	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 17:27	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 17:27	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 17:27	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 17:27	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 17:27	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 17:27	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 17:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124					04/01/20 17:27	1
Dibromofluoromethane (Surr)	101		75 - 120					04/01/20 17:27	1
1,2-Dichloroethane-d4 (Surr)	101		75 - 126					04/01/20 17:27	1
Toluene-d8 (Surr)	94		75 - 120					04/01/20 17:27	1

Client Sample Results

Client: Cedar Corporation
 Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-12D

Lab Sample ID: 500-179872-12

Date Collected: 03/24/20 11:50

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 17:54	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 17:54	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 17:54	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 17:54	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 17:54	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 17:54	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 17:54	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 17:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124					04/01/20 17:54	1
Dibromofluoromethane (Surr)	102		75 - 120					04/01/20 17:54	1
1,2-Dichloroethane-d4 (Surr)	103		75 - 126					04/01/20 17:54	1
Toluene-d8 (Surr)	92		75 - 120					04/01/20 17:54	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-13
Date Collected: 03/24/20 12:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-13
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 18:21	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 18:21	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 18:21	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 18:21	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 18:21	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 18:21	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 18:21	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 18:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		72 - 124					04/01/20 18:21	1
Dibromofluoromethane (Surr)	100		75 - 120					04/01/20 18:21	1
1,2-Dichloroethane-d4 (Surr)	103		75 - 126					04/01/20 18:21	1
Toluene-d8 (Surr)	94		75 - 120					04/01/20 18:21	1

Client Sample Results

Client: Cedar Corporation
 Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-13D

Lab Sample ID: 500-179872-14

Date Collected: 03/24/20 12:40

Matrix: Ground Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 18:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 18:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 18:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 18:48	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 18:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 18:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 18:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 18:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124					04/01/20 18:48	1
Dibromofluoromethane (Surr)	103		75 - 120					04/01/20 18:48	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 126					04/01/20 18:48	1
Toluene-d8 (Surr)	93		75 - 120					04/01/20 18:48	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: Webster

Lab Sample ID: 500-179872-15

Date Collected: 03/24/20 09:15

Matrix: Drinking Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 19:15	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 19:15	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 19:15	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 19:15	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 19:15	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 19:15	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 19:15	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124		04/01/20 19:15	1
Dibromofluoromethane (Surr)	104		75 - 120		04/01/20 19:15	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		04/01/20 19:15	1
Toluene-d8 (Surr)	93		75 - 120		04/01/20 19:15	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: Witkowski

Lab Sample ID: 500-179872-16

Date Collected: 03/24/20 12:45

Matrix: Drinking Water

Date Received: 03/26/20 09:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.7		0.50	0.15	ug/L			04/01/20 19:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 19:42	1
Methyl tert-butyl ether	1.1		1.0	0.39	ug/L			04/01/20 19:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 19:42	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 19:42	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 19:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 19:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 19:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124					04/01/20 19:42	1
Dibromofluoromethane (Surr)	102		75 - 120					04/01/20 19:42	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 126					04/01/20 19:42	1
Toluene-d8 (Surr)	93		75 - 120					04/01/20 19:42	1

Definitions/Glossary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

GC/MS VOA

Analysis Batch: 536266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-179872-2	MW-2P	Total/NA	Ground Water	8260B	
500-179872-2 - DL	MW-2P	Total/NA	Ground Water	8260B	
500-179872-3	MW-3D	Total/NA	Ground Water	8260B	
500-179872-4	MW-4	Total/NA	Ground Water	8260B	
500-179872-4 - DL	MW-4	Total/NA	Ground Water	8260B	
500-179872-5	MW-4P	Total/NA	Ground Water	8260B	
500-179872-5 - DL	MW-4P	Total/NA	Ground Water	8260B	
500-179872-6	MW-7	Total/NA	Ground Water	8260B	
500-179872-7	MW-8P	Total/NA	Ground Water	8260B	
500-179872-8	MW-9	Total/NA	Ground Water	8260B	
500-179872-9	MW-10	Total/NA	Ground Water	8260B	
500-179872-10	MW-11	Total/NA	Ground Water	8260B	
500-179872-11	MW-12P	Total/NA	Ground Water	8260B	
500-179872-12	MW-12D	Total/NA	Ground Water	8260B	
500-179872-13	MW-13	Total/NA	Ground Water	8260B	
500-179872-14	MW-13D	Total/NA	Ground Water	8260B	
500-179872-15	Webster	Total/NA	Drinking Water	8260B	
500-179872-16	Witkowski	Total/NA	Drinking Water	8260B	
MB 500-536266/7	Method Blank	Total/NA	Water	8260B	
LCS 500-536266/5	Lab Control Sample	Total/NA	Water	8260B	
500-179872-16 MS	Witkowski	Total/NA	Drinking Water	8260B	
500-179872-16 MSD	Witkowski	Total/NA	Drinking Water	8260B	

Analysis Batch: 536604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-179872-1	MW-1	Total/NA	Ground Water	8260B	
MB 500-536604/6	Method Blank	Total/NA	Water	8260B	
LCS 500-536604/4	Lab Control Sample	Total/NA	Water	8260B	

Surrogate Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)
500-179872-15	Webster	88	104	104	93
500-179872-16	Witkowski	89	102	104	93
500-179872-16 MS	Witkowski	89	100	100	96
500-179872-16 MSD	Witkowski	91	100	101	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)
500-179872-1	MW-1	88	94	102	94
500-179872-2	MW-2P	87	99	100	95
500-179872-2 - DL	MW-2P	87	100	102	93
500-179872-3	MW-3D	88	100	102	94
500-179872-4	MW-4	79	99	99	97
500-179872-4 - DL	MW-4	89	98	99	93
500-179872-5	MW-4P	89	95	92	96
500-179872-5 - DL	MW-4P	87	99	99	94
500-179872-6	MW-7	87	99	99	94
500-179872-7	MW-8P	89	100	100	95
500-179872-8	MW-9	87	101	101	93
500-179872-9	MW-10	86	102	102	93
500-179872-10	MW-11	88	102	103	93
500-179872-11	MW-12P	89	101	101	94
500-179872-12	MW-12D	89	102	103	92
500-179872-13	MW-13	90	100	103	94
500-179872-14	MW-13D	88	103	104	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)
LCS 500-536266/5	Lab Control Sample	89	97	100	94
LCS 500-536604/4	Lab Control Sample	89	98	105	92
MB 500-536266/7	Method Blank	88	99	102	94
MB 500-536604/6	Method Blank	92	97	108	93

Eurofins TestAmerica, Chicago

Surrogate Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

1

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QC Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-536266/7
Matrix: Water
Analysis Batch: 536266

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/01/20 10:53	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/01/20 10:53	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/01/20 10:53	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/01/20 10:53	1
Toluene	<0.15		0.50	0.15	ug/L			04/01/20 10:53	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/01/20 10:53	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/01/20 10:53	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/01/20 10:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124		04/01/20 10:53	1
Dibromofluoromethane (Surr)	99		75 - 120		04/01/20 10:53	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		04/01/20 10:53	1
Toluene-d8 (Surr)	94		75 - 120		04/01/20 10:53	1

Lab Sample ID: LCS 500-536266/5
Matrix: Water
Analysis Batch: 536266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.1		ug/L		98	70 - 120
Ethylbenzene	50.0	47.0		ug/L		94	70 - 123
Methyl tert-butyl ether	50.0	49.4		ug/L		99	55 - 123
Naphthalene	50.0	58.3		ug/L		117	53 - 144
Toluene	50.0	48.3		ug/L		97	70 - 125
1,2,4-Trimethylbenzene	50.0	49.7		ug/L		99	70 - 123
1,3,5-Trimethylbenzene	50.0	50.8		ug/L		102	70 - 123
Xylenes, Total	100	91.3		ug/L		91	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120
1,2-Dichloroethane-d4 (Surr)	100		75 - 126
Toluene-d8 (Surr)	94		75 - 120

Lab Sample ID: 500-179872-16 MS
Matrix: Drinking Water
Analysis Batch: 536266

Client Sample ID: Witkowski
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.7		50.0	54.6		ug/L		106	70 - 120
Ethylbenzene	<0.18		50.0	50.7		ug/L		101	70 - 123
Methyl tert-butyl ether	1.1		50.0	53.5		ug/L		105	55 - 123
Naphthalene	<0.34		50.0	58.3		ug/L		117	53 - 144
Toluene	<0.15		50.0	52.2		ug/L		104	70 - 125
1,2,4-Trimethylbenzene	<0.36		50.0	53.0		ug/L		106	70 - 123
1,3,5-Trimethylbenzene	<0.25		50.0	54.2		ug/L		108	70 - 123
Xylenes, Total	<0.22		100	97.9		ug/L		98	70 - 125

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane (Surr)	100		75 - 120
1,2-Dichloroethane-d4 (Surr)	100		75 - 126
Toluene-d8 (Surr)	96		75 - 120

Lab Sample ID: 500-179872-16 MSD
Matrix: Drinking Water
Analysis Batch: 536266

Client Sample ID: Witkowski
Prep Type: Total/NA

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Benzene	1.7		50.0	50.8		ug/L		98	70 - 120	7	20
Ethylbenzene	<0.18		50.0	47.1		ug/L		94	70 - 123	7	20
Methyl tert-butyl ether	1.1		50.0	50.9		ug/L		100	55 - 123	5	20
Naphthalene	<0.34		50.0	58.2		ug/L		116	53 - 144	0	20
Toluene	<0.15		50.0	48.6		ug/L		97	70 - 125	7	20
1,2,4-Trimethylbenzene	<0.36		50.0	49.9		ug/L		100	70 - 123	6	20
1,3,5-Trimethylbenzene	<0.25		50.0	50.9		ug/L		102	70 - 123	6	20
Xylenes, Total	<0.22		100	91.3		ug/L		91	70 - 125	7	20

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	91		72 - 124
Dibromofluoromethane (Surr)	100		75 - 120
1,2-Dichloroethane-d4 (Surr)	101		75 - 126
Toluene-d8 (Surr)	96		75 - 120

Lab Sample ID: MB 500-536604/6
Matrix: Water
Analysis Batch: 536604

Client Sample ID: Method Blank
Prep Type: Total/NA

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>LOQ</i>	<i>DL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Benzene	<0.15		0.50	0.15	ug/L			04/03/20 12:33	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/03/20 12:33	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/03/20 12:33	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/03/20 12:33	1
Toluene	<0.15		0.50	0.15	ug/L			04/03/20 12:33	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/03/20 12:33	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/03/20 12:33	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/03/20 12:33	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene (Surr)	92		72 - 124		04/03/20 12:33	1
Dibromofluoromethane (Surr)	97		75 - 120		04/03/20 12:33	1
1,2-Dichloroethane-d4 (Surr)	108		75 - 126		04/03/20 12:33	1
Toluene-d8 (Surr)	93		75 - 120		04/03/20 12:33	1

Lab Sample ID: LCS 500-536604/4
Matrix: Water
Analysis Batch: 536604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
Benzene	50.0	47.3		ug/L		95	70 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Cedar Corporation
 Project/Site: Olson Corners

Job ID: 500-179872-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-536604/4

Matrix: Water

Analysis Batch: 536604

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	50.0	49.3		ug/L		99	70 - 123
Methyl tert-butyl ether	50.0	50.2		ug/L		100	55 - 123
Naphthalene	50.0	41.1		ug/L		82	53 - 144
Toluene	50.0	45.0		ug/L		90	70 - 125
1,2,4-Trimethylbenzene	50.0	45.7		ug/L		91	70 - 123
1,3,5-Trimethylbenzene	50.0	45.9		ug/L		92	70 - 123
Xylenes, Total	100	97.9		ug/L		98	70 - 125

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane (Surr)	98		75 - 120
1,2-Dichloroethane-d4 (Surr)	105		75 - 126
Toluene-d8 (Surr)	92		75 - 120

Lab Chronicle

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-1
Date Collected: 03/24/20 11:00
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536604	04/03/20 13:27	JDD	TAL CHI

Client Sample ID: MW-2P
Date Collected: 03/24/20 10:00
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	536266	04/01/20 11:59	JDD	TAL CHI
Total/NA	Analysis	8260B	DL	200	536266	04/01/20 12:27	JDD	TAL CHI

Client Sample ID: MW-3D
Date Collected: 03/24/20 10:15
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 12:54	JDD	TAL CHI

Client Sample ID: MW-4
Date Collected: 03/24/20 10:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	536266	04/01/20 13:21	JDD	TAL CHI
Total/NA	Analysis	8260B	DL	20	536266	04/01/20 13:48	JDD	TAL CHI

Client Sample ID: MW-4P
Date Collected: 03/24/20 10:35
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 14:15	JDD	TAL CHI
Total/NA	Analysis	8260B	DL	10	536266	04/01/20 14:42	JDD	TAL CHI

Client Sample ID: MW-7
Date Collected: 03/24/20 11:40
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 15:10	JDD	TAL CHI

Client Sample ID: MW-8P
Date Collected: 03/24/20 11:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 15:37	JDD	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: MW-9
Date Collected: 03/24/20 09:45
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 16:04	JDD	TAL CHI

Client Sample ID: MW-10
Date Collected: 03/24/20 09:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 16:32	JDD	TAL CHI

Client Sample ID: MW-11
Date Collected: 03/24/20 12:00
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-10
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 16:59	JDD	TAL CHI

Client Sample ID: MW-12P
Date Collected: 03/24/20 12:10
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-11
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 17:27	JDD	TAL CHI

Client Sample ID: MW-12D
Date Collected: 03/24/20 11:50
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-12
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 17:54	JDD	TAL CHI

Client Sample ID: MW-13
Date Collected: 03/24/20 12:30
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-13
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 18:21	JDD	TAL CHI

Client Sample ID: MW-13D
Date Collected: 03/24/20 12:40
Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-14
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 18:48	JDD	TAL CHI

Lab Chronicle

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Client Sample ID: Webster

Date Collected: 03/24/20 09:15

Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-15

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 19:15	JDD	TAL CHI

Client Sample ID: Witkowski

Date Collected: 03/24/20 12:45

Date Received: 03/26/20 09:10

Lab Sample ID: 500-179872-16

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	536266	04/01/20 19:42	JDD	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Cedar Corporation
Project/Site: Olson Corners

Job ID: 500-179872-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Chain of Custody Record

381800




Environment Testin
TestAmerica

TAL-8210

Address: _____

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: <u>Mitch Evenson</u>		Site Contact: <u>Anna Beckman</u>		Date: <u>3/24/20</u>		COC No.: _____	
Company Name: <u>Cedar Corporation</u>		Tel/Email: _____		Lab Contact: <u>Sondie F.</u>		Carrier: <u>FedEx</u>		1 of 2 COCs	
Address: <u>604 Wilson Avenue</u>		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
City/State/Zip: <u>Menomonie, WI 54751</u>									
Phone: <u>715-235-9081</u>		Filtered Sample (Y / N) Perform MS / MSD (Y / N) PVOC's + Naphthalene  500-179872 COC							
Fax: _____									
Project Name: <u>Olson Corners</u>		Job / SDG No.: <u>500-179872</u> Sample Specific Notes: _____							
Site: _____									
P O # _____									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)
1 MW-1	3/24	1100	G	GW	3	X	
2 MW-2P		1000					
3 MW-3D		1015					
4 MW-4		1030					
5 MW-4P		1035					
6 MW-7		1140					
7 MW-8P		1130					
8 MW-9		0945					
9 MW-10		0930					
10 MW-11		1200					
11 MW-12P		1210					
12 MW-12D		1150					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown
 Return to Client
 Disposal by Lab
 Archive for _____ Months

Special Instructions/QC Requirements & Comments:
PECFA Pricing

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: <u>16.9</u> Corr'd: _____	Therm ID No.:
Relinquished by: <u>Rosa Beckman</u>	Company: <u>Cedar Corp</u>	Date/Time: <u>0700 3/25/20</u>	Received by: _____
Relinquished by: _____	Company: _____	Date/Time: _____	Received by: _____
Relinquished by: _____	Company: _____	Date/Time: _____	Received by: <u>Jim Scott</u>
		Received in Laboratory by: <u>TA-CH</u>	Date/Time: <u>3/26/20 0910</u>

Chain of Custody Record

381339



Environment Testing
TestAmerica

Address: _____

Regulatory Program: DW NPDES RCRA Other:

TAL-8210

Client Contact Company Name: <u>Cedar Corp</u> Address: <u>604 Wilson Ave</u> City/State/Zip: <u>Menomonie, WI 54751</u> Phone: <u>715-235-9081</u> Fax: _____ Project Name: <u>Olson Corners</u> Site: _____ P O #: _____		Project Manager: <u>Mitch Evenson</u> Tel/Email: _____		Site Contact: <u>Anna Beckman</u> Date: <u>3/24/20</u> Lab Contact: <u>Sandi F.</u> Carrier: <u>FedEx</u>		COC No: _____ 2 of 2 COCs Sampler: <u>AMB</u> For Lab Use Only: Walk-in Client: <input type="checkbox"/> Lab Sampling: <input type="checkbox"/> Job / SDG No.: <u>500-179872</u>																															
		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) _____ Perform MS / MSD (Y/N) _____ POC's: <u>Phthalate</u>		Sample Specific Notes: _____																															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix</th> <th># of Cont.</th> </tr> </thead> <tbody> <tr> <td>13 MW-13</td> <td>3/24</td> <td>1230</td> <td>G</td> <td>GW</td> <td>3</td> </tr> <tr> <td>14 MW-130</td> <td>↓</td> <td>1240</td> <td>↓</td> <td>↓</td> <td>3</td> </tr> <tr> <td>15 Webster</td> <td>↓</td> <td>0915</td> <td>↓</td> <td>DW</td> <td>2</td> </tr> <tr> <td>16 Witkowski</td> <td>↓</td> <td>1245</td> <td>↓</td> <td>↓</td> <td>3</td> </tr> </tbody> </table>						Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	13 MW-13	3/24	1230	G	GW	3	14 MW-130	↓	1240	↓	↓	3	15 Webster	↓	0915	↓	DW	2	16 Witkowski	↓	1245	↓	↓	3
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)					Matrix	# of Cont.																												
13 MW-13	3/24	1230	G					GW	3																												
14 MW-130	↓	1240	↓					↓	3																												
15 Webster	↓	0915	↓	DW	2																																
16 Witkowski	↓	1245	↓	↓	3																																
		Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____																																			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																																			
Special Instructions/QC Requirements & Comments: <u>PECFA Pricing .</u>																																					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: _____		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____																																	
Relinquished by: <u>Anna Beckman</u>		Company: <u>Cedar Corp</u>		Date/Time: <u>0700 3/25/20</u>																																	
Relinquished by: _____		Company: _____		Date/Time: _____																																	
Relinquished by: _____		Company: _____		Received in Laboratory by: <u>Shirley Scott</u>																																	
Relinquished by: _____		Company: _____		Date/Time: <u>3/26/20 0910</u>																																	

Login Sample Receipt Checklist

Client: Cedar Corporation

Job Number: 500-179872-1

Login Number: 179872

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

