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September 20, 2018

Mr. David Volkert
Hydrogeologist
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, WI 53188

RE: Letter Report for the Former MPL Corp. Wire and Metal Specialists Located at 4021 S. Kinnickinnic Avenue in St. Francis, Wisconsin; ReadyEarth Project No. 17-0301; BRRTS No. 02-41-184461

Dear Mr. Volkert,

ReadyEarth Consulting, Inc. ("ReadyEarth") is pleased to submit this letter for the above-referenced site (the "site"). ReadyEarth has reviewed the DNR file for the site and this letter includes a summarized background of the previous ownership and sampling activities for the site. This letter also documents the activities ReadyEarth has conducted at the site in accordance with the Wisconsin Department of Natural Resources (DNR)-approved scope discussed during our phone call in May 2017.

Responsible Party Background

The site contains an approximate 15,000 ft^2 industrial building, and was most formerly owned by the MPL Realty Property ("MPL"). A company called Wire and Metal Specialties ("WMS") had reportedly operated at the site from the mid-1960s through MPL's ownership, and the site had reportedly been occupied by similar metal fabrication operations since the mid-1940s. It has been reported to the DNR that WMS formerly utilized chlorinated solvents at the site to degrease metals and those solvents have impacted the site.

Circa 2000, MPL leased the site to Badger Metal Finishing ("Badger"). Prior to and during Badger's lease of the site, MPL and others have conducted various site assessments at the site. Circa 2005, Badger purchased the site from MPL. Conditions of the property transaction reportedly included MPL retaining the environmental responsibility, and MPL conducted site assessment activities for some time during Badger's ownership of the site. However, MPL stopped any further assessment

activities circa 2007. Badger has since continued with additional site assessment activities.

Badger has reported to ReadyEarth that they have utilized no chlorinated solvents during their occupation/ownership of the site. Badger utilizes a water-based detergent for parts washing and that the wash water is disposed through an onsite sanitary sewer connection.

In 2017, Badger sold the business to a separate entity, while Badger still owns the real estate.

Site Assessment Background

This section summarizes information contained in reports and notes within the DNR file. Please refer to the DNR file for a more detailed account of the previous work conducted at the site.

The DNR opened a case file at the site on March 1, 1998 based on the presence of chlorinated solvents detected in shallow soils in the southern portion of the site. Those soils were excavated in February 1998 and the DNR closed the site in October 1998. A property transaction prompted additional sampling in 1999 and 2000. Based on additional impacts detected during that sampling, the DNR reopened the site in 2002. ReadyEarth has compiled and incorporated the sampling locations and results from the previous sampling into the tables and figures submitted with this report.

In addition to the activities related to the site, an unrelated soil excavation extended onto the site from the south-adjoining gas station property. The DNR has recognized that petroleum impacts have migrated onto the site from the south-adjoining property and do not require further evaluation with respect to the subject site.

In 2004, Midwest Engineering Services, Inc. (MES) began additional site assessment activities at the site and off site to the north. Those activities extended through at least 2008 and included installing additional wells and sampling soil, groundwater, sub-slab vapor, and indoor/ambient air.

Badger retained ReadyEarth in 2017 to conduct additional sampling at the site. The DNR and ReadyEarth agreed to an appropriate scope of work in May 2017, which generally included additional groundwater sampling and sub-slab vapor sampling.

To date, thirty-five probeholes/borings have been advanced, nine groundwater monitoring wells have been installed, up to fifteen rounds of groundwater sampling have been conducted, six sub-slab vapor sampling ports have been installed and sampled, and three indoor/background air samples have been collected. The results of the sampling are discussed further in the following section and summarized in the tables and maps submitted with this report.

Soil Sampling Summary

To date, thirty-five probeholes/borings have been advanced and forty-seven soil samples have been analyzed for volatile organic compounds (VOCs). The laboratory reports from the previous soil sampling are available in the DNR file. ReadyEarth has compiled the data from the DNR file into the attached comprehensive Table A.2.b. The sampling locations and soil analytical results are illustrated on the attached figures included with this report.

The majority of shallow soil impacts are present beneath the existing concrete/asphalt of the south portion of the building and adjacent exterior storage area. The soil impacts consist primarily of tetrachloroethene (PCE), 1,1,1-trichloroethane (TCA), and trichloroethene (TCE). Concentrations of TCE exceed the RCL for the non-industrial direct contact pathway within three distinct areas represented by several probeholes along the south of the building. Concentrations of TCE in three distinct samples also exceed the industrial direct contact RCL. The soil concentrations above direct contact RCLs are well defined by other surrounding probeholes.

Concentrations of select compounds are also present in soil above the groundwater pathway RCLs at most probeholes. Those concentrations generally decrease with distance from the three apparent source areas referenced above (areas with concentrations above direct contact RCLs). The TCE impacts are generally defined to the south by GP-2, east by GP-16 and GP-103, and north (downgradient) by the unsaturated soil samples from PZ-1 and PZ-2. Further delineation to the west is not possible due to the terrain and limited access due to the railroad right-of-way.

Groundwater Sampling Summary

To date, nine groundwater monitoring wells have been installed and up to fifteen rounds of groundwater sampling for VOCs have been conducted. The laboratory reports from the historic groundwater sampling are available in the DNR file. The laboratory reports for the ReadyEarth sampling are included in Attachment D. ReadyEarth compiled the historic sampling data from the DNR file and the ReadyEarth sampling data into the attached comprehensive Table A.1. The sampling locations and groundwater analytical results are illustrated on the attached figures included with this report.

In the water table wells, TCE and PCE were detected in groundwater above enforcement standards (ESs), and at the relative highest concentrations within the apparent source area wells MW-10 and MW-102. It should be noted that the TCE concentrations in those wells exhibited somewhat anomalous swings during the May 2018 event; possibly correlating to historically high groundwater elevations. PCE is below detection limits, and TCE is stable and relatively low in downgradient well MW-9. All compounds are below detection limits in the most downgradient well MW-12.

The highest overall concentrations have been detected in the shallow piezometer PZ-1. However, the concentrations in the deep piezometer PZ-2 are significantly lower, which defines the vertical extent of groundwater impacts to the extent practicable.

While TCE remains above the ES, the concentrations are stable or decreasing over the past ten sampling events. Well MW-102 is the only well not exhibiting a stable or decreasing trend. The graphs in the attached A.7 illustrate the TCE concentration trends compared to groundwater elevations. The graphs clearly show stable or decreasing trends for a majority of the wells, including PZ-2, the well with the highest concentrations.

Historic reports indicated that product was observed within MW-9; however, that the product disappeared after placing additional security on the well. ReadyEarth has observed slight product in MW-9 that has ranged from less than an inch to a mere sheen. ReadyEarth submitted a sample of the product for laboratory analyses. According to the analyst, the product had a pattern consistent with approximately 89% mineral spirits and 11% heavier oils. The analysis may indicate a historic release of a mineral spirits-based parts washing liquid. It should be noted that the additional security on the well referenced above was in response to an alleged illicit disposal from the

north-adjoining property. That property is currently used for automobile storage and salvage, and is kept in a generally poor condition. ReadyEarth has conducted periodic product removal activities and staged the product in a 55-gallon drum staged on site.

Vapor Sampling Summary

Previous sub-slab vapor sampling (May 2008) included three locations along the north and southwest perimeters of the building. The previous sampling also included Indoor air near the sub-slab samples and one ambient/outdoor air sample. The laboratory reports for the previous sampling are included in the DNR file. ReadyEarth has included the historic data from the DNR file in the vapor analytical table attached with this report.

In August 2017, ReadyEarth installed six sub-slab sample ports (three of the ports replaced previous ports) and collected sub-slab vapor samples. ReadyEarth installed the sample ports in general accordance with DNR guidance RR-986. A full description of the installation and sampling techniques is included in Attachment C. The vapor sampling analytical results are summarized in the attached Table A.4. The laboratory report for the ReadyEarth sampling are included in Attachment D.

The sub-slab sampling results indicate that TCE was the only compound detected above a vapor risk screening level (VRSL), and was detected at three locations. The highest concentration was detected at SS4-S, which is located along the south side of the building generally downgradient of MW-102 and the highest soil impacts. The other locations are SS3-SW at the southwest corner of the building near MW-10, and SS5-C in the central portion of the building.

TCE was below detection limits in all three of the indoor/ambient air samples. In fact, all chlorinated VOCs were below detection limits in the indoor/ambient air samples. Further, the other compounds detected in groundwater were either below detection limits or well below VRSLs in sub-slab vapor samples.

Conclusions and Recommendations

Soil impacts are present above groundwater and direct contact RCLs. The impacts above groundwater pathway RCLs are further addressed through groundwater monitoring and natural attenuation. The impacts above direct contact RCLs are

beneath existing concrete pavement, and will ultimately be addressed through implementing a cap maintenance plan. The soil impacts will require listing the site on the geographic information system (GIS).

The groundwater concentrations are defined downgradient and are predominantly stable or decreasing. The decreasing concentrations and presence of natural breakdown parameters indicates that natural attenuation is occurring and capable of mitigating the residual groundwater impacts. Groundwater impacts appear to extend off-site to the north and an off-site notification will be required prior to listing the subject property and the north-adjoining property on the GIS.

The indoor air sampling suggests that the vapor intrusion pathway is incomplete at the site. However, the sub-slab vapor impacts indicate that further mitigation will be required prior to closure. ReadyEarth recommends installing a sub-slab depressurization system (SSDS) to mitigate the vapor intrusion pathway.

ReadyEarth would appreciate the opportunity to discuss the sampling results and recommendations presented in this letter in order to best position the site for eventual closure.

We appreciate your assistance with this project. Please call me at (262) 522-3520 once you have reviewed this information contained in this submittal.

Sincerely,

ReadyEarth Consulting, Inc.

Jason E. Bartley, P.G.
President

attachments

A.1 Groundwater Analytical Table - All Compounds (Pg 1 of 4)

Former MPL Corp. Wire & Metal Specialties

4021 S. Kinnickinnic Avenue, St. Francis, WI

Well I.D.	Sample Date	benzene	bromodichloromethane	chloromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2,dichloroethene	trans-1,2-dichloroethene	ethylbenzene	isopropylbenzene	methyl tert-butyl ether	naphthalene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	tert-butylbenzene	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
MW-7	3/10/99	**10**	-	-	4.1	*2.3*	*2.2*	1.1	2.9	-	-	-	-	-	-	-	-	-	*2.7*	-	*120*	-	**110**	-	-	-	-
	7/16/99	*0.51*	-	-	6.3	*1.4*	*2*	0.68	-	-	-	2.1	-	-	-	-	-	-	*2.2*	-	*120*	-	**110**	-	-	-	-
	6/30/00	-	-	-	17	-	**18**	4.1	-	-	-	-	-	-	-	-	-	-	**6.5**	-	**220**	-	**150**	-	-	-	-
	6/27/02	-	-	-	-	*3.88*	*1.71*	0.538	-	-	-	0.993	-	-	-	-	-	-	*1.64*	-	*73.8*	-	**83.4**	-	-	-	-
	8/14/03	<0.5	<0.5	*9.29*	5.93	*2.26*	*1.87*	0.621	<0.5	<0.5	-	1.53	<2.0	-	<0.5	-	-	-	*2.38*	<0.5	*76.6*	-	**72.0**	<1.0	<1.0	<0.17	<0.5
	1/20/04	<0.5	<0.35	*9.41*	<5.0	*1.93*	<0.5	<5.0	<5.0	<5.0	-	1.09	<8.0	-	<5.0	-	-	-	*1.64*	<5.0	27	-	**50**	<5.0	<5.0	<0.65	<5.0
	8/3/04	<0.5	**0.9**	<0.44	<0.5	<0.5	**10.8**	<5.0	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	*2.39*	<5.0	35.6	-	**79.7**	<5.0	<5.0	<0.21	<5.0
	12/8/04	<0.34	<0.27	<0.24	<5.0	*3.33*	<0.45	<5.0	<5.0	<5.0	-	<0.40	<8.0	-	<5.0	-	-	-	*1.05*	<5.0	26.0	-	**36.6**	<5.0	<5.0	<0.30	<5.0
	2/28/05	<0.5	<0.39	<0.44	<5.0	<0.5	<0.5	<5.0	<5.0	<5.0	-	0.31	<8.0	-	<5.0	-	-	-	*1.76*	<5.0	37.1	-	**62.2**	<5.0	<5.0	<0.21	<5.0
	7/28/05	well was inaccessible during this event.																									
	11/30/05	0.46	<0.40	<0.40	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	-	<1.0	<0.5	-	<1.0	-	-	-	*1.7*	<0.40	33	-	**60**	<0.40	<0.40	<0.40	<1.0
	4/21/06	well was inaccessible during this event.																									
	8/6/08	<1.0	<1.9	<0.8	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	*3.8*	<1.0	38.7	-	**82.8**	<1.0	<1.0	<0.6	<2.0
	7/11/17	<0.50	<0.50	<0.50	0.83 J	<0.17	<0.41	<0.26	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*2.1*	<0.50	27.8	<0.20	**45.0**	<0.50	<0.50	<0.18	<1.5
	10/17/17	<0.50	<0.50	<0.50	0.72 J	*1.4*	<0.41	<0.26	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*1.8*	<0.50	20.4	<0.20	**42.2**	<0.50	<0.50	<0.18	<1.5
	5/14/18	<0.50	<0.50	<0.50	0.42 J	<0.17	<0.41	<0.26	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*2.3*	<0.50	21.1	<0.20	**39.5**	<0.50	<0.50	<0.18	<1.5
MW-9	8/14/03	**11.4**	**3.86**	*3.68*	47.7	-	**28.7**	**832**	*42.5*	*229*	-	-	-	-	15.8	-	-	-	-	99.2	30.4	-	**2,050**	*256.2*		**272**	*835*
	1/20/04	**14.6**	**122**	*18.1*	<50.0	<5.0	*6.3*	**432**	<50.0	**829**	-	<3.81	<80.0	-	<50.0	-	-	-	<5.0	*219*	<50.0	-	**168**	**1,116**		**336**	**2,440**
	8/3/04	*3.92*	<5.0	<0.44	<5.0	<0.5	*2.79*	**182**	<5.0	**896**	-	<0.29	**166**	-	104	-	-	-	<0.5	9.56	<5.0	-	**76.5**	**1,662**		**68.2**	**2,310**
	12/8/04	*3.86*	<5.0	<0.24	<5.0	<0.38	<0.45	<5.0	<5.0	**1,040**	-	<0.40	**200**	-	101	-	-	-	<0.29	39.1	<5.0	-	*1.47*	**1,543**		**3.46**	**2,580**
	2/28/05	*4.18*	<10.0	<0.89	<10.0	<1.0	<1.0	*36.7*	<10.0	**1,220**	-	<0.58	**163**	-	143	-	-	-	<1.0	30.8	<10.0	-	**17.9**	**1,694**		**22.6**	**3,460**
	7/28/05	*3.1*	<10.0	<2.0	<5.0	<5.0	<5.0	*28*	<5.0	**1,000**	-	<5.0	**100**	-	110	-	-	-	<5.0	22	<5.0	-	**44**	**1,220**		**12**	**2,400**
	11/30/05	<5.0	<25.0	<5.0	<12	<12	<12	<12	<12	*680*	-	<12	*75*	-	82	-	-	-	<12	12	<12	-	**14**	**850**		<5.0	*1,500*
	4/21/06	<5.0	<25	<5.0	44	<12	**12**	**380**	*21*	*340*	-	<12	*30*	-	47	-	-	-	<12	7.8	24	-	**780**	*437*		**81**	*640*
	8/6/08	<1.0	<1.9	<0.8	2.8	<1.0	<1.0	*47.7*	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	**66.4**	<2.0		**2.1**	<2.0
	7/11/17	*1.3 J*	<1.2	<1.2	<0.60	<0.42	<1.0	*45.7*	1.7 J	*148*	44.0	<0.44	*32.9*	28.4	80.5	23.7	28.5	7.6	<1.2	<1.2	<1.2	<0.49	**22.6**	*367*	*37.6*	**13.6**	396.3
	10/17/17	*3.1*	<1.2	<1.2	4.0	<0.42	*1.5 J*	**86.1**	4.1	122	54.6	<0.44	*51.5*	50.2	98.4	35.6	45.7	10.5	<1.2	<1.2	<1.2	<0.49	**61.2**	**446**	**55.0**	**22.4**	*424.2*
	5/14/18	<1.2	<1.2	<1.2	1.2 J	<0.42	<1.0	**38.4**	2.1 J	80.5	40.1	<0.44	*20.9*	29.7	74.3	74.3	32.3	<0.45	<1.2	<1.2	<1.2	<0.49	**25.2**	*244*	*9.0*	**12.9**	281.3
NR 140 PAL		0.5	0.06	3	85	0.5	0.7	7	20	140	ns	12	10	ns	ns	ns	ns	ns	0.5	160	40	0.5	0.5	96		0.02	400
NR 140 ES		5	0.6	30	850	5	7	70	100	700	ns	60	100	ns	ns	ns	ns	ns	5	800	200	5	5	480		0.2	2,000

1. All concentrations are shown in parts per billion (ppb).
2. "-" denotes that a compound was not analyzed or data was not available from DNR file data tables.
3. Concentrations in **red bold** exceed their respective enforcement standard (ES).
4. Concentrations in *blue italics* exceed their respective preventive action limit (PAL).
5. "ns" denotes that ch. NR 140 Wis. Adm. Code does not establish a standard for that compound.
6. ReadyEarth obtained the historic sampling data from tables within the DNR file. ReadyEarth assumes that the data tables submitted to the DNR are accurate. ReadyEarth did not review laboratory reports for the historic groundwater sampling.

A.1 Groundwater Analytical Table - All Compounds (Pg 2 of 4)

Former MPL Corp. Wire & Metal Specialties

4021 S. Kinnickinnic Avenue, St. Francis, WI

Well I.D.	Sample Date	benzene	bromodichloromethane	chloromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2,dichloroethene	trans-1,2-dichloroethene	ethylbenzene	isopropylbenzene	methyl tert-butyl ether	naphthalene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	tert-butylbenzene	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
MW-10	1/20/04	*1.04*	<5.0	<0.92	<5.0	<0.5	*3.34*	<5.0	<5.0	<5.0	-	<0.38	<8.0	-	<5.0	-	-	-	**21**	<5.0	34.2	-	**64.4**	<5.0	<5.0	**4.06**	<5.0
	8/3/04	<0.5	<5.0	<0.44	5.06	<0.5	*5.29*	<5.0	<5.0	<5.0	-	<0.29	<8.0	-	<0.5	-	-	-	**49.2**	<5.0	*87.6*	-	**147**	<5.0	<5.0	<0.21	<5.0
	12/8/04	<0.34	<5.0	<0.24	<5.0	<0.38	<0.45	5.76	<5.0	<5.0	-	<0.40	<8.0	-	<5.0	-	-	-	**21.1**	<5.0	*45.8*	-	**72.3**	<5.0	<5.0	**1.85**	<5.0
	2/28/05	<0.5	<5.0	<0.44	7.82	<0.5	*2.41*	*7.73*	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	**37.8**	<5.0	*103*	-	**142**	<5.0	<5.0	**4.84**	<5.0
	7/28/05	<0.4	<2.0	<0.40	5.7	<1.0	*2.2*	6.3	<1.0	<1.0	-	<1.0	<0.50	-	<1.0	-	-	-	**51**	<0.40	*91*	-	**180**	<0.40	<0.40	<0.40	<1.0
	11/30/05	<0.4	**3.7**	<0.40	11	<1.0	*2.9*	*11*	<1.0	<1.0	-	<1.0	<0.50	-	<1.0	-	-	-	**33**	<0.40	*75*	-	**130**	<0.40	<0.40	**3.8**	<1.0
	4/21/06	<0.4	<2.0	<0.40	5.4	<1.0	*1.5*	*3.9*	<1.0	<1.0	-	<1.0	<0.50	-	<1.0	-	-	-	**21**	<0.40	*86*	-	**120**	<0.40	<0.40	**1.5**	<1.0
	8/6/08	<2.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.2	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	**46.3**	<5.0	*147*	-	**315**	<5.0	<5.0	<3.0	<10.0
	7/11/17	<0.50	<0.50	<0.50	0.49 J	<0.17	<0.41	1.2	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	**59.7**	<0.50	*80.3*	<0.20	**193**	<0.50	<0.50	<0.18	<1.5
	10/17/17	<1.2	<1.2	<1.2	1.4 J	<0.42	<1.0	1.8 J	<0.64	<1.2	<0.36	<0.44	<6.2	<1.2	<1.2	<1.2	<5.5	<0.45	**92**	<1.2	*85.7*	<0.49	**260**	<1.2	<1.2	**0.68 J**	<3.7
	5/14/18	<0.50	<0.50	<0.50	<0.24	<0.17	<0.41	1.1	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	**11.3**	<0.50	35.5	<0.20	**86.3**	<0.50	<0.50	<0.18	<1.5
MW-11	8/3/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/8/04	<0.34	NR	<0.24	<5.0	<0.38	<0.45	<5.0	<5.0	<5.0	<5.0	<4.0	<8.0	NR	NR	NR	NR	NR	<0.29	<5.0	<5.0	NR	<0.49	<5.0	<5.0	<0.30	<5.0
	4/20/05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/30/05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/21/06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7/11/17	<0.50	<0.50	<0.50	<0.24	<0.17	<0.41	<0.26	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	<0.33	<0.50	<0.50	<0.18	<1.5
	10/17/17	This well was not sampled during these events.																									
	5/14/18																										
MW-12	8/3/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/8/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/20/05	<0.5	<0.39	<0.44	<5.0	<0.5	<0.5	<5.0	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	<0.5	<5.0	<5.0	-	<0.5	<5.0	<5.0	<0.21	<5.0
	11/30/05	<2.0	*0.24*	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.25	-	<0.5	-	-	-	<0.5	<0.2	<0.5	-	<0.2	<0.2	<0.2	<0.2	<5.0
	4/21/06	<2.0	<1.0	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	7.8	<0.25	-	<0.5	-	-	-	<0.5	<0.2	<0.5	-	<0.2	<0.2	<0.2	<0.2	<5.0
	7/11/17	<0.50	<0.50	<0.50	<0.24	<0.17	<0.41	<0.26	<0.26	<0.50	<0.14	1.9	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	<0.33	<0.50	<0.50	<0.18	<1.5
	10/17/17	This well was not sampled during this event.																									
	5/14/18	<0.50	<0.50	<0.50	<0.24	<0.17	<0.41	<0.26	<0.26	<0.50	<0.14	1.8	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	<0.33	<0.50	<0.50	<0.18	<1.5
NR 140 PAL		0.5	0.06	3	85	0.5	0.7	7	20	140	ns	12	10	ns	ns	ns	ns	ns	0.5	160	40	0.5	0.5	96		0.02	400
NR 140 ES		5	0.6	30	850	5	7	70	100	700	ns	60	100	ns	ns	ns	ns	ns	5	800	200	5	5	480		0.2	2,000

1. All concentrations are shown in parts per billion (ppb).
2. "-" denotes that a compound was not analyzed or data was not available from DNR file data tables.
3. Concentrations in **red bold** exceed their respective enforcement standard (ES).
4. Concentrations in *blue italics* exceed their respective preventive action limit (PAL).
5. "ns" denotes that ch. NR 140 Wis. Adm. Code does not establish a standard for that compound.
6. ReadyEarth obtained the historic sampling data from tables within the DNR file. ReadyEarth assumes that the data tables submitted to the DNR are accurate. ReadyEarth did not review laboratory reports for the historic groundwater sampling.

A.1 Groundwater Analytical Table - All Compounds (Pg 3 of 4)

Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

Well I.D.	Sample Date	benzene	bromodichloromethane	chloromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2,dichloroethene	trans-1,2-dichloroethene	ethylbenzene	isopropylbenzene	methyl tert-butyl ether	naphthalene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	tert-butylbenzene	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
MW-102	7/16/99	**14**	-	-	-	*2.5*	-	1.7	0.66	7.3	-	8	-	-	-	-	-	-	-	0.9	16	-	**140**	0.56	-	-	0.92
	6/30/00	**5.5**	-	-	5.8	*0.84*	*2.4*	5.2	-	14	-	5.4	-	-	-	-	-	-	-	0.56	*43*	-	**59**	-	-	-	3.5
	6/27/02	*2.38*	-	-	1.02	*0.672*	-	*11.9*	1.28	8.79	-	2.55	-	-	1.99	-	-	-	-	-	1.88	-	**24.2**	-	-	-	1.37
	8/14/03	*1.76*	-	-	1.05	*0.611*	-	*14.7*	1.16	1.87	-	1.77	-	-	0.559	-	-	-	-	-	3.5	-	**16**	-	-	-	-
	1/20/04	*1.3*	<5.0	<0.92	<5.0	*1.44*	<0.5	*14.2*	<5.0	<5.0	-	1.27	<8.0	-	<5.0	-	-	-	<0.5	<5.0	<5.0	-	**12.8**	<5.0	<5.0	<0.65	<5.0
	8/3/04	*1.3*	<5.0	<0.44	<5.0	<0.5	<0.5	*11.3*	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	<0.5	<5.0	<5.0	-	**11.1**	<5.0	<5.0	<0.21	<5.0
	12/8/04	*1.11*	<5.0	<0.24	<5.0	<0.38	<0.45	*13.7*	<5.0	<5.0	-	<0.40	<8.0	-	<5.0	-	-	-	<0.29	<5.0	<5.0	-	**7.68**	<5.0	<5.0	<0.30	<5.0
	2/28/05	*0.9*	<5.0	<0.44	<5.0	<0.5	<0.5	*9.6*	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	<0.5	<5.0	<5.0	-	**10.3**	<5.0	<5.0	<0.21	<5.0
	7/28/05	*0.55*	<1.0	<0.20	<0.5	<0.5	<0.5	6.9	<0.5	<0.5	-	<0.5	<0.25	-	<0.5	-	-	-	<0.5	<0.20	<0.5	-	**8.8**	<0.20	<0.20	<0.20	<0.5
	11/30/05	0.40	<1.0	<0.20	<0.5	<0.5	<0.5	*7.0*	<0.5	<0.5	-	<0.5	<0.25	-	<0.5	-	-	-	<0.5	<0.20	0.77	-	**9.0**	<0.20	<0.20	<0.20	<0.5
	4/21/06	*0.86*	<1.0	<0.20	<0.5	*0.78*	<0.5	*11*	<0.5	<0.5	-	<0.5	<0.25	-	<0.5	-	-	-	<0.5	<0.20	<0.5	-	**8.1**	0.21	<0.20	<0.20	<0.5
	8/6/08	<1.0	<1.0	<0.8	9.6	<1.0	<1.0	*13.1*	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	*2.6*	<1.0	*48.1*	-	**62.2**	<1.0	<1.0	<0.6	<2.0
	7/11/17	<0.50	<0.50	<0.50	5.3	*1.1*	<0.41	5.7	<0.26	<0.50	<0.14	0.58 J	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*0.75 J*	<0.50	19.3	<0.20	**82.7**	<0.50	<0.50	<0.18	<1.5
	10/17/17	<0.50	<0.50	<0.50	2.1	<0.17	<0.41	*9.1*	<0.26	<0.50	<0.14	0.20 J	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	9.8	<0.20	**72.5**	<0.50	<0.50	<0.18	<1.5
	5/14/18	<0.50	<0.50	<0.50	29.7	<0.17	*0.87 J*	*10.6*	0.62 J	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*1.6*	<0.50	*69.0*	*1.3*	**162**	<0.50	<0.50	<0.18	<1.5
MW-103	6/30/00	-	-	-	-	-	-	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6/27/02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8/14/03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1/20/04	<0.5	<5.0	*14.7*	<5.0	<0.5	<0.5	<5.0	<5.0	<5.0	-	<0.38	<8.0	-	<5.0	-	-	-	<0.5	<5.0	<5.0	-	*0.72*	<5.0	<5.0	<0.65	<5.0
	8/3/04	<0.5	<5.0	<0.44	<5.0	<0.5	<0.5	<5.0	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	<0.5	<5.0	<5.0	-	<0.5	<5.0	<5.0	<0.21	<5.0
	12/8/04	<0.34	<5.0	<0.24	<5.0	<0.38	<0.45	<5.0	<5.0	<5.0	-	<0.40	<8.0	-	<5.0	-	-	-	<0.29	<5.0	<5.0	-	<0.49	<5.0	<5.0	<0.30	<5.0
	7/11/17	<0.50	<0.50	<0.50	<0.24	<0.17	<0.41	<0.26	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	<0.33	<0.50	<0.50	<0.18	<1.5
	10/17/17	This well was not sampled during these events.																									
	5/14/18																										
NR 140 PAL		0.5	0.06	3	85	0.5	0.7	7	20	140	ns	12	10	ns	ns	ns	ns	ns	0.5	160	40	0.5	0.5	96		0.02	400
NR 140 ES		5	0.6	30	850	5	7	70	100	700	ns	60	100	ns	ns	ns	ns	ns	5	800	200	5	5	480		0.2	2,000

1. All concentrations are shown in parts per billion (ppb).
2. "-" denotes that a compound was not analyzed or data was not available from DNR file data tables.
3. Concentrations in **red bold** exceed their respective enforcement standard (ES).
4. Concentrations in *blue italics* exceed their respective preventive action limit (PAL).
5. "ns" denotes that ch. NR 140 Wis. Adm. Code does not establish a standard for that compound.
6. ReadyEarth obtained the historic sampling data from tables within the DNR file. ReadyEarth assumes that the data tables submitted to the DNR are accurate. ReadyEarth did not review laboratory reports for the historic groundwater sampling.

A.1 Groundwater Analytical Table - All Compounds (Pg 4 of 4)

Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

Well I.D.	Sample Date	benzene	bromodichloromethane	chloromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2,dichloroethene	trans-1,2-dichloroethene	ethylbenzene	isopropylbenzene	methyl tert-butyl ether	naphthalene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	tert-butylbenzene	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
PZ-1	8/3/04	<0.5	**4.57**	<0.44	50.1	<0.5	**108**	**128**	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	*4.2*	<5.0	**304**	<0.14	**405**	<5.0	<5.0	**15.1**	<5.0
	12/8/04	<0.34	<0.27	<0.24	61.7	<0.38	**49.6**	**171**	<5.0	<5.0	-	<0.40	<8.0	-	<5.0	-	-	-	*2.72*	<5.0	**205**	0.81	**256**	<5.0	<5.0	**5.39**	<5.0
	2/28/05	<1.0	<0.78	<0.89	*90.3*	<1.0	**61.2**	**209**	<10.0	<10.0	-	<0.58	<16.0	-	<10.0	-	-	-	*4.5*	<10.0	**334**	1.6	**397**	<10.0	<10.0	**10.1**	<10
	7/28/05	<2.0	<2.0	<2.0	64	<5.0	**51**	**170**	<5.0	<5.0	-	<5.0	<2.5	-	<0.5	-	-	-	<5.0	<2.0	**310**	<2.5	**360**	<2.0	<2.0	**11**	<5.0
	11/30/05	<1.6	<1.6	<1.6	57	<4.0	**46**	**160**	<4.0	<4.0	-	<4.0	<2.0	-	<4.0	-	-	-	<4.0	<1.6	*160*	<2.0	**230**	<1.6	<1.6	**7.8**	<4.0
	4/21/06	<1.6	<1.6	<1.6	74	<4.0	**52**	**170**	5.4	<4.0	-	<4.0	<2.0	-	<4.0	-	-	-	<4.0	<1.6	**280**	<2.0	**250**	<1.6	<1.6	**12**	<4.0
	8/6/08	<5.0	<9.3	<4.0	79.8	<5.0	**56.2**	**229**	5.0	<5.0	<5.0	10.2	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**326**	<7.0	**326**	<5.0	<5.0	**10.9**	<10.0
	7/11/17	<0.50	<0.50	<0.50	41.4	0.26 J	**32**	**129**	5.4	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*0.89 J*	<0.50	*123*	*0.54 J*	**282**	<0.50	<0.50	**5.8**	<1.5
	10/17/17	<0.50	<0.50	<0.50	44.2	<0.17	**36.2**	**165**	5.0	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*1.3*	<0.50	*121*	<0.20	**270**	<0.50	<0.50	**5.4**	<1.5
	5/14/18	<0.50	<0.50	<0.50	44.7	<0.17	**34.3**	**139**	5.6	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	*0.63 J*	<0.50	*120*	0.44 J	**271**	<0.50	<0.50	**7.9**	<1.5
PZ-2	4/21/05	<0.5	<0.39	<0.44	12.6	<0.5	*1.33*	**81.8**	<5.0	<5.0	-	<0.29	<8.0	-	<5.0	-	-	-	*0.54*	<5.0	<5.0	<0.14	**136**	<5.0	<5.0	<0.21	<5.0
	7/28/05	<0.4	<0.4	<0.4	7.3	<1.0	*1.2*	*39*	1.4	<1.0	-	<1.0	<0.5	-	<1.0	-	-	-	<1.0	<4.0	2.3	<0.5	**120**	<0.4	<0.4	<0.4	<1.0
	11/30/05	<0.2	<0.2	<0.2	5.2	<0.5	*0.77*	*33*	1.1	<0.5	-	<0.5	<0.25	-	<0.5	-	-	-	<0.5	<0.2	0.61	<0.25	**45**	<0.2	<0.2	**1.3**	<0.5
	4/21/06	<0.2	<0.2	<0.2	5.2	<0.5	<0.5	*40*	1.1	<0.5	-	<0.5	<0.25	-	<0.5	-	-	-	<0.5	<0.2	<0.51	<0.25	**50**	<0.2	<0.2	**1.9**	<0.5
	8/6/08	<1.0	<1.9	<1.0	2.7	<1.0	<1.0	*41.5*	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.4	**64.8**	<1.0	<1.0	**1.9**	<2.0
	7/11/17	<0.50	<0.50	<0.50	0.60 J	<0.17	<0.41	*12.3*	<0.26	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	*4.3*	<0.50	<0.50	<0.18	<1.5
	10/17/17	<0.50	<0.50	<0.50	0.67 J	<0.17	<0.41	*16.4*	0.56 J	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	**5.6**	<0.50	<0.50	<0.18	<1.5
	5/14/18	<0.50	<0.50	<0.50	0.76 J	<0.17	<0.41	*18.3*	0.37 J	<0.50	<0.14	<0.17	<2.5	<0.50	<0.50	<0.50	<2.2	<0.18	<0.50	<0.50	<0.50	<0.20	**5.7**	<0.50	<0.50	<0.18	<1.5
NR 140 PAL		0.5	0.06	3	85	0.5	0.7	7	20	140	ns	12	10	ns	ns	ns	ns	ns	0.5	160	40	0.5	0.5	96		0.02	400
NR 140 ES		5	0.6	30	850	5	7	70	100	700	ns	60	100	ns	ns	ns	ns	ns	5	800	200	5	5	480		0.2	2,000

1. All concentrations are shown in parts per billion (ppb).
2. "-" denotes that a compound was not analyzed or data was not available from DNR file data tables.
3. Concentrations in **red bold** exceed their respective enforcement standard (ES).
4. Concentrations in *blue italics* exceed their respective preventive action limit (PAL).
5. "ns" denotes that ch. NR 140 Wis. Adm. Code does not establish a standard for that compound.
6. ReadyEarth obtained the historic sampling data from tables within the DNR file. ReadyEarth assumes that the data tables submitted to the DNR are accurate. ReadyEarth did not review laboratory reports for the historic groundwater sampling.

A.2.b Soil Analytical Results Table - All Compounds (Pg 1 of 2)

Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

	Well I.D.	Depth (bgs)	Relation to GW	Sample Date	n-butylbenzene	sec-butylbenzene	tert-butylbenzene	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2,dichloroethene	ethylbenzene	isopropylbenzene	p-isopropyltoluene	methylene chloride	naphthalene	n-propylbenzene	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
Key Sampling	GP-1	3-5	unsat.	3/10/99	<25	-	-	<25	-	-	-	<25	-	<25	-	-	<25	<25	<25	<25	-	<25	-	<50		-	<25
	GP-2	7-9	unsat.	3/10/99	25	-	-	<25	-	-	-	<25	-	<25	-	-	<25	<25	<25	<25	-	<25	-	<50		-	<25
	GP-3	1-3	unsat.	3/10/99	22,000	-	-	*1,900*	-	-	-	*1,900*	-	1,700	-	-	6,900	*4,200*	<500	*26,000*	-	***7,500***	-	*20,900*		-	1,500
	GP-4	3-5	unsat.	3/10/99	<25	-	-	<25	-	-	-	<25	-	<25	-	-	<25	*150*	34	*220*	-	*1,100*	-	<50		-	<25
HIS Geotrans Sampling	GP-1	0-2	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*350*	<25	*230*	<25	*500*	<25	<25	<25	-	34
	GP-2	0-2	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	44	*220*	<25	<25	<25	<25	<25	-	<75
	GP-3	4-6	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	*1,500*	<25	*1,100*	<25	<25	<25	-	<75
	GP-4	4-6	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*850*	<25	*360*	<25	*2,200*	<25	<25	<25	-	<75
	GP-5	4-6	unsat.	7/7/99	<250	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*530*	<25	*1,000*	<25	*5,300*	<25	<25	<25	-	<750
	GP-6	2-4	unsat.	7/7/99	<25	<25	-	<25	<25	<25	*120*	<25	-	<25	-	<25	<25	*13,000*	83	*2,500*	*32*	**18,000**	28 J	<25	<25	-	<75
	GP-7	0-2	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	*2,700*	*3,200*	<25	***3,000***	<25	<25	<25	-	125
	GP-8	4-6	unsat.	7/7/99	<25	<25	-	32	<25	<25	*61*	<25	-	<25	-	<25	<25	*1,100*	<25	*2,100*	<25	*16,000*	<25	<25	<25	-	<75
	GP-9	4-6	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	110	<25	*560*	<25	<25	<25	-	<75
	GP-10	4-6	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*260*	<25	*240*	<25	*740*	<25	<25	<25	-	<75
	GP-11	0-2	unsat.	7/7/99	<25	<25	-	130	<25	<25	*75*	<25	-	<25	-	<25	<25	*5,700*	<25	*3,300*	*39*	***7,200***	<25	<25	<25	-	<75
	GP-12	0-2	unsat.	7/7/99	<25	<25	-	53	<25	<25	<25	<25	-	<25	-	<25	<25	*810*	110	*5,100*	*57*	**29,000**	<25	<25	<25	-	<75
	GP-13	4-6	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*100*	<25	*420*	<25	*4,400*	<25	<25	<25	-	<75
	GP-14	0-2	unsat.	7/7/99	<25	<25	-	220	<25	*35*	33	<25	-	<25	-	<25	<25	*1,200*	<25	*2,000*	<25	***4,600***	<25	<25	<25	-	<75
	GP-15	0-2	unsat.	7/7/99	62	31	-	310	<25	*56*	<25	<25	-	30	-	<25	54	*480*	<25	*2,500*	<25	***1,700***	<25	65	110	-	<75
	GP-16	0-2	unsat.	7/7/99	<25	48	-	<25	<25	<25	-	<25	-	<25	-	170	<25	<25	<25	<25	<25	*45*	<25	<25	<25	-	<75
	GP-17	6-8	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*28*	<25	72	<25	*370*	<25	<25	<25	-	<75
	GP-18	4-6	unsat.	7/7/99	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	39	<25	*200*	<25	<25	<25	-	<75
	GP-19	0-2	unsat.	7/7/99	<25	66	-	<25	<25	<25	<25	<25	-	<25	-	27	<25	*390*	60	*780*	<25	***4,700***	72	60	47	-	<75
	GP-20	0-2	unsat.	7/8/99	<25	<25	-	120	<25	<25	26	37	-	<25	-	<25	<25	*1,000*	<25	*620*	<25	*520*	45 J	34	<25	-	1,220
		8-10	unsat.	7/8/99	<25	<25	-	<25	*40*	<25	<25	<25	-	<25	-	<25	<25	<25	<25	*160*	<25	<25	<25	<50	<25	-	<75
DNR Soil RCL Non-Industrial Direct Contact Pathway					1.E+05	1.E+05	2.E+05	4,720	608	3.E+05	2.E+05	7,470	-	2.E+05	60,700	5,150	-	30,700	8.E+05	6.E+05	1,480	1,260	1E+06	89,800	2.E+05	67	3.E+05
DNR Soil RCL Industrial D.C. Pathway					1.E+05	1.E+05	2.E+05	23,700	3,030	1E+06	2E+06	37,000	-	2.E+05	1E+06	26,000	-	2.E+05	8.E+05	6.E+05	7,340	8,810	1E+06	2.E+05	2.E+05	2,030	3.E+05
DNR Soil RCL Groundwater Pathway					-	-	-	483.4	2.8	5	41.2	1,570	-	-	2.6	658.2	-	4.5	1,107	140.2	3.2	3.6	-	1,382		0.1	3,960

1. All concentrations are shown in parts per billion (ppb).
2. "-" denotes that a compound was not analyzed, data was not available, or that the DNR has not calculated a soil RCL for that compound.
3. Concentrations in **red bold** exceed their respective RCL for the non-industrial direct contact pathway (only within the top 4 feet bgs). If also in italics, the concentration also exceeds its RCL for the groundwater pathway.
4. Concentrations in **green bold and underlined** exceed their respective RCL for the industrial direct contact pathway (only within the top 4 feet bgs). If also in italics, the concentration also exceeds its RCL for the groundwater pathway.
5. Concentrations in *blue italics* exceed their respective RCL for the groundwater pathway (only in unsaturated samples).
6. ReadyEarth obtained the historic sampling data tables within the DNR file. ReadyEarth assumes that the data tables submitted to the DNR are accurate. ReadyEarth did not review laboratory reports for the historic soil sampling.

A.2 Soil Analytical Results Table - All Compounds (Pg 2 of 2)

Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

	Well I.D.	Depth (bgs)	Relation to GW	Sample Date	n-butylbenzene	sec-butylbenzene	tert-butylbenzene	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2,dichloroethene	ethylbenzene	isopropylbenzene	p-isopropyltoluene	methylene chloride	naphthalene	n-propylbenzene	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
HSI Sampling	GP-101	2	unsat.	6/27/00	<25	<25	-	74	<25	<25	<25	<25	-	<25	-	<25	<25	*450*	<25	*5,000*	<25	**37,000**	<25	<50	<25	-	<75
		20	sat.	6/27/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	<25	<25	160	<25	<50	<25	-	<75
		30	sat.	6/27/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	-	<75
	GP-102	2	unsat.	6/27/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	72	<25	*35*	<25	<50	<25	-	<75
	GP-103	2	unsat.	6/27/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	73	<25	*81*	<25	<50	<25	-	<75
	GP-104	3	unsat.	6/28/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*160*	<25	*170*	<25	*850*	<25	<50	<25	-	<75
		8	unsat.	6/28/00	<25	<25	-	<25	<25	<25	32	<25	-	<25	-	<25	<25	*100*	<25	*450*	<25	*1,900*	<25	<50	<25	-	<75
	GP-105	3	unsat.	6/28/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	<25	<25	*35*	<25	<50	<25	-	<75
		8	unsat.	6/28/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	<25	<25	*80*	<25	<50	<25	-	<75
	GP-106	2	unsat.	6/28/00	330	36	-	<25	<25	<25	<25	49	-	<25	-	<25	<25	*290*	920	*530*	<25	*410*	<25	610	650	-	1,340
	GP-107	3	unsat.	6/28/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	59	32	<25	*43*	<25	<50	<25	-	<75
		8	unsat.	6/28/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	31	<25	*68*	<25	<50	<25	-	<75
	GP-108	2	unsat.	6/28/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	*190*	85	*220*	<25	*100*	<25	<50	25	-	230
	GP-109	2	unsat.	6/27/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	58	<25	***1,900***	<25	<50	<25	-	<75
		8	unsat.	6/27/00	<25	<25	-	<25	<25	<25	<25	<25	-	<25	-	<25	<25	<25	<25	84	<25	*920*	<25	<50	<25	-	<75
MES Sampling	PZ-1	10-12	unsat.	7/26/04	7,060	<25	1,240	<25	-	<25	<25	358	2,870	7,840	*760*	*10,700*	7,290	<25	<25	<25	<25	<25	-	*67,000*	*4,250*	<25	*6,540*
		18-20	sat.	7/26/04	<25	<25	<25	<25	-	<25	91	<25	<25	<25	<100	<25	<25	56	<25	499	<25	2,600	-	27	<25	<25	<25
		25-27	sat.	7/26/04	<25	<25	<25	73	-	<25	137	63	<25	<25	<100	104	116	251	<25	636	<25	3,490	-	748	169	<25	210
	PZ-2	10-12	unsat.	4/11/05	1,340	<25	<25	<25	-	<25	<25	30	<25	835	<100	333	1,020	<25	<25	<25	<25	<25	-	1,260	<25	<25	48
		24-26	sat.	4/11/05	<25	<25	<25	293	-	143	450	59	<25	<25	<100	<25	<25	238	<25	<25	<25	8,480	-	<25	<25	<25	122
		38-40	sat.	4/11/05	>25	<25	<25	<25	-	<25	<25	<25	<25	<25	<100	<25	<25	<25	<25	<25	<25	117	-	<25	<25	<25	<25
		43-45	sat.	4/11/05	<25	40	<25	<25	-	<25	<25	<25	<25	<25	694	61	<25	<25	<25	<25	<25	<25	-	58	<25	<25	<25
DNR Soil RCL Non-Industrial Direct Contact Pathway					1.E+05	1.E+05	2.E+05	4,720	608	3.E+05	2.E+05	7,470	-	2.E+05	60,700	5,150	-	30,700	8.E+05	6.E+05	1,480	1,260	1E+06	89,800	2.E+05	67	3.E+05
DNR Soil RCL Industrial D.C. Pathway					1.E+05	1.E+05	2.E+05	23,700	3,030	1E+06	2E+06	37,000	-	2.E+05	1E+06	26,000	-	2.E+05	8.E+05	6.E+05	7,340	8,810	1E+06	2.E+05	2.E+05	2,030	3.E+05
DNR Soil RCL Groundwater Pathway					-	-	-	483.4	2.8	5	41.2	1,570	-	-	2.6	658.2	-	4.5	1,107	140.2	3.2	3.6	-	1,382		0.1	3,960

1. All concentrations are shown in parts per billion (ppb).
2. "-" denotes that a compound was not analyzed, data was not available, or that the DNR has not calculated a soil RCL for that compound.
3. Concentrations in **red bold** exceed their respective RCL for the non-industrial direct contact pathway (only within the top 4 feet bgs). If also in italics, the concentration also exceeds its RCL for the groundwater pathway.
4. Concentrations in **green bold and underlined** exceed their respective RCL for the industrial direct contact pathway (only within the top 4 feet bgs). If also in italics, the concentration also exceeds its RCL for the groundwater pathway.
5. Concentrations in *blue italics* exceed their respective RCL for the groundwater pathway (only in unsaturated samples).
6. ReadyEarth obtained the historic sampling data tables within the DNR file. ReadyEarth assumes that the data tables submitted to the DNR are accurate. ReadyEarth did not review laboratory reports for the historic soil sampling.

A.4 Vapor Analytical Table

Former MPL Corp. Wire & Metal Specialties

4021 S. Kinnickinnic Avenue, St. Francis, WI

Sample I.D.	Location	Sample Time		Sample Date	Acetone	benzene	carbon disulfide	1,2-dichloroethane	cis-1,2-dichloroethene	trans-1,2-dichloroethene	ethylbenzene	n-hexane	methylene chloride	methyl ethyl ketone (2-butanone)	methyl tert-butyl ether	tetrachloroethene	toluene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes
SS1-N	sub-slab north-central work area	1400	1430	5/2/08	6.5	<0.72	<0.69	<0.72	<0.72	<1.4	<0.72	<0.73	2.9	0.87	<1.4	<0.72	<0.72	<0.72	<0.72	<0.72	<0.70	<0.72	<0.70	<2.12
		1240	1325	8/18/17	-	-	-	-	<0.072	<0.065	-	-	-	-	-	0.26	-	-	-	3.8	-	-	<0.065	-
SS2-NW	sub-slab northwest lounge	1415	1445	4/25/08	7.7	<0.70	1.9	<070	<0.70	<1.3	<0.70	<0.71	42.2	<0.74	<1.3	0.73	1.2	<0.70	<0.70	125	<0.68	<0.70	<0.68	<2.0
		1130	1220	8/18/17	-	-	-	-	0.17 J	<0.065	-	-	-	-	-	0.17	-	-	-	18.2	-	-	<0.065	-
SS3-SW	sub-slab vapor southwest storage room	1420	1450	4/25/08	<3.7	<3.5	<3.3	<3.5	<3.5	<6.6	<3.5	<3.5	31.9	<3.7	<6.6	<3.5	<3.5	<3.5	<3.5	<3.5	<3.4	<3.5	<3.4	<10.1
		1115	1200	8/18/17	-	-	-	-	0.19 J	<0.065	-	-	-	-	-	8.4	-	-	-	**362**	-	-	<0.065	-
SS4-S	sub-slab south of paint room	1100	1145	8/18/17	-	-	-	-	19.3	7.4	-	-	-	-	-	309	-	-	-	**6,220**	-	-	<0.069	-
SS5-C	sub-slab central storage room	1200	1245	8/18/17	-	-	-	-	<0.074	<0.067	-	-	-	-	-	4.1	-	-	-	**362**	-	-	<0.069	-
SS6-NE	sub-slab NE QC area	1220	1305	8/18/17	-	-	-	-	<0.074	<0.067	-	-	-	-	-	0.49	-	-	-	1.3	-	-	<0.069	-
AA1-W	outdoor air west side wall	0715	1515	5/2/08	2.2	<0.94	<0.90	<0.94	<0.94	<1.8	<0.94	<0.95	15.7	<0.99	<1.8	<0.94	1.3	<0.94	<0.94	<0.94	<0.92	<0.94	<0.92	<2.74
A2-SW	indoor air southwest storage room	0730	1530	4/25/08	4.8	<0.94	<0.90	<0.94	<0.94	<1.8	<0.94	<0.95	9.4	<0.99	<1.8	<0.94	1.2	<0.94	<0.94	<0.94	<0.92	<0.94	<0.92	<2.74
A3-N	indoor air north-central work area	0735	1535	4/25/08	<0.74	<0.70	<0.67	<0.70	<0.70	<1.3	<0.70	5.8	143	4.3	<1.3	<0.70	18.5	<0.70	<0.70	<0.70	<0.68	<0.70	<0.68	<2.0
DNR Large Commercial/Industrial VRSL					**6.E+06**	**500**	**98,700**	**120**	**ns**	**ns**	**1,130**	**87,200**	**75,800**	**7.E+05**	**13,100**	**2,700**	**581,500**	**401,600**	**18**	**170**	**5,400**	**5,400**	**1,100**	**10,100**
DNR Vapor Action Level (VAL)					**56,866**	**5.0**	**987**	**1.2**	**ns**	**ns**	**11.3**	**872**	**758**	**7,430**	**131**	**27**	**5,815**	**4,016**	**0.18**	**1.7**	**54**	**54**	**11**	**101**

Notes:

1. All concentrations are shown in parts per billion by volume (ppbv).
2. Concentrations in **red bold** exceed their respective vapor risk screening levels (VRSLs) for sub-slab vapors or vapor acton levels (VALs) for indoor/ambient air.
3. VRSLs were obtained from the DNR Quick Look-Up Table based on the EPA regional screening tables for indoor VALs. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. The VRSLs were determined from the VALs using an attenuation factor of 0.03.
4. The sub-slab samples were collected with 6-liter summa canisters and analyzed via the TO-15 method.
5. ReadyEarth obtained the data shown in this table from reviewing actual laboratory reports contained in the DNR file.

A.6 Water Level Elevations (Pg 1 of 3)

Former MPL Corp. Wire & Metal Specialties

4021 S. Kinnickinnic Avenue, St. Francis, WI

Well Number	Date	[1]Total Well Depth	Ground Surface Elevation	[1]Top of Casing Elevation	[2]Depth to Water Below Ground	[1]Depth to Water Below Casing	Groundwater Elevation
MW-7	6/27/02	14.57	106.28	105.72	10.90	10.34	**95.38**
	8/14/03				11.54	10.98	**94.74**
	1/20/04				12.30	11.74	**93.98**
	8/3/04				10.64	10.08	**95.64**
	12/8/04				NM	NM	**NM**
	2/28/05				10.63	10.07	**95.65**
	7/28/05				NM	NM	**NM**
	4/21/06				NM	NM	**NM**
	11/30/06				9.45	8.89	**96.83**
	8/6/08				10.27	9.71	**96.01**
	7/11/17				NM	NM	**NM**
	10/17/17				11.54	10.98	**94.74**
	5/14/18				8.15	7.59	**98.13**
MW-9	8/14/03	19.54	107.24	106.75	17.89	17.40	**89.35**
	1/20/04				18.14	17.65	**89.10**
	8/3/04				17.56	17.07	**89.68**
	12/8/04				17.92	17.43	**89.32**
	2/28/05				17.46	16.97	**89.78**
	7/28/05				17.17	16.68	**90.07**
	4/21/06				17.54	17.05	**89.70**
	11/30/06				16.86	16.37	**90.38**
	8/6/08				17.34	16.85	**89.90**
	7/11/17				NM	NM	**NM**
	10/17/17				17.16	16.67	**90.08**
	5/14/18				12.49	12.00	**94.75**
MW-10	1/20/04	19.55	106.82	106.36	13.69	13.23	**93.13**
	8/3/04				12.35	11.89	**94.47**
	12/8/04				12.64	12.18	**94.18**
	2/28/05				12.15	11.69	**94.67**
	7/28/05				12.95	12.49	**93.87**
	4/21/06				11.31	10.85	**95.51**
	11/30/06				11.15	10.69	**95.67**
	8/6/08				11.88	11.42	**94.94**
	7/11/17				NM	NM	**NM**
	10/17/17				12.37	11.91	**94.45**
	5/14/18				7.61	7.15	**99.21**

Notes:

1. All measurements are presented in feet.
2. "[1]" Measured from the north rim of the top of well casing.
3. "[2]" Calculated based on depth to water measurements and survey results.

A.6 Water Level Elevations (Pg 2 of 3)
Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

Well Number	Date	[1]Total Well Depth	Ground Surface Elevation	[1]Top of Casing Elevation	[2]Depth to Water Below Ground	[1]Depth to Water Below Casing	Groundwater Elevation
MW-11	12/8/04	17.74	105.24	104.64	11.19	10.59	**94.05**
	2/28/05				9.89	9.29	**95.35**
	7/28/05				10.58	9.98	**94.66**
	4/21/06				9.28	8.68	**95.96**
	11/30/06				9.09	8.49	**96.15**
	8/6/08				NM	NM	**NM**
	7/11/17				NM	NM	**NM**
	10/17/17				10.97	10.37	**94.27**
	5/14/18				7.03	6.43	**98.21**
MW-12	8/3/04	17.80	97.73	100.86	dry	dry	**dry**
	12/8/04				14.60	17.73	**83.13**
	2/28/05				14.31	17.44	**83.42**
	7/28/05				14.55	17.68	**83.18**
	4/21/06				14.44	17.57	**83.29**
	11/30/06				14.40	17.53	**83.33**
	8/6/08				dry	dry	**dry**
	7/11/17				NM	NM	**NM**
	10/17/17				14.50	17.63	**83.23**
	5/14/18				14.38	17.51	**83.35**
MW-102	6/27/02	17.74	105.95	105.46	11.34	10.85	**94.61**
	8/14/03				11.94	11.45	**94.01**
	1/20/04				11.67	11.18	**94.28**
	8/3/04				10.23	9.74	**95.72**
	12/8/04				11.12	10.63	**94.83**
	2/28/05				10.27	9.78	**95.68**
	7/28/05				10.64	10.15	**95.31**
	4/21/06				9.59	9.10	**96.36**
	11/30/06				9.06	8.57	**96.89**
	8/6/08				9.89	9.40	**96.06**
	7/11/17				NM	NM	**NM**
	10/17/17				10.76	10.27	**95.19**
	5/14/18				7.94	7.45	**98.01**

Notes:
1. All measurements are presented in feet.
2. "[1]" Measured from the north rim of the top of well casing.
3. "[2]" Calculated based on depth to water measurements and survey results.

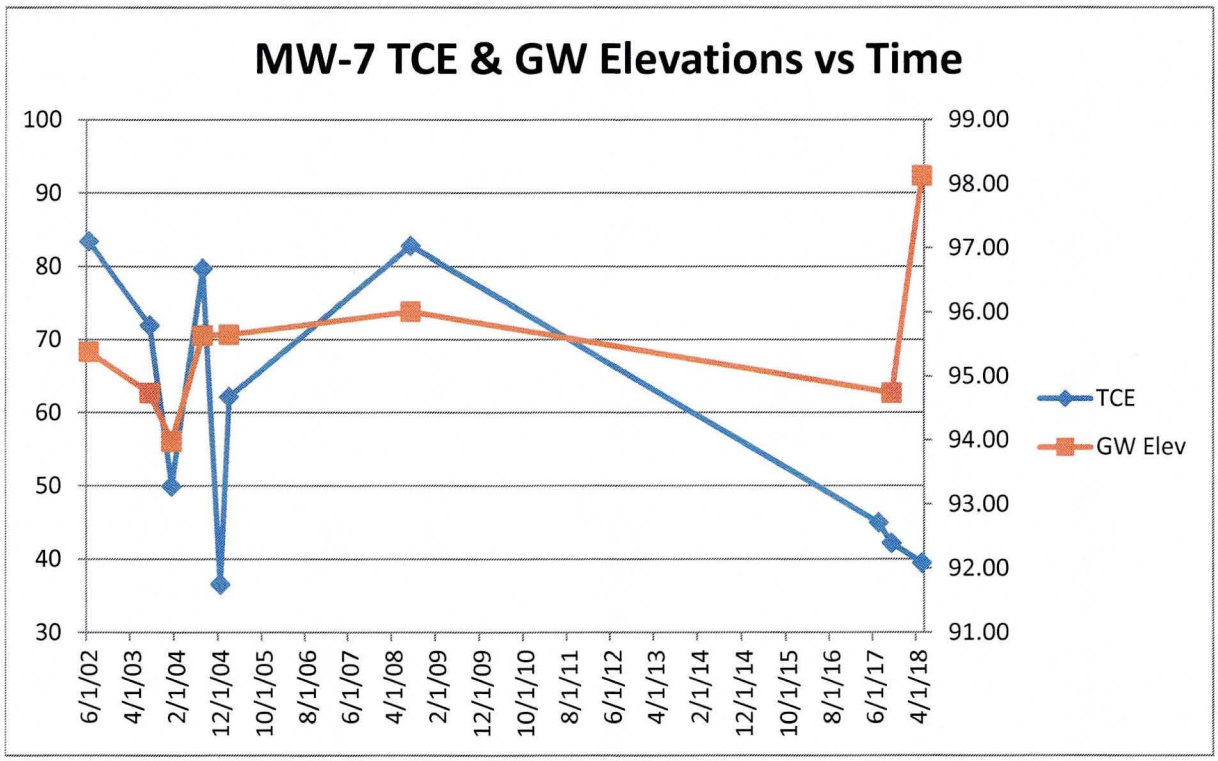
A.6 Water Level Elevations (Pg 3 of 3)

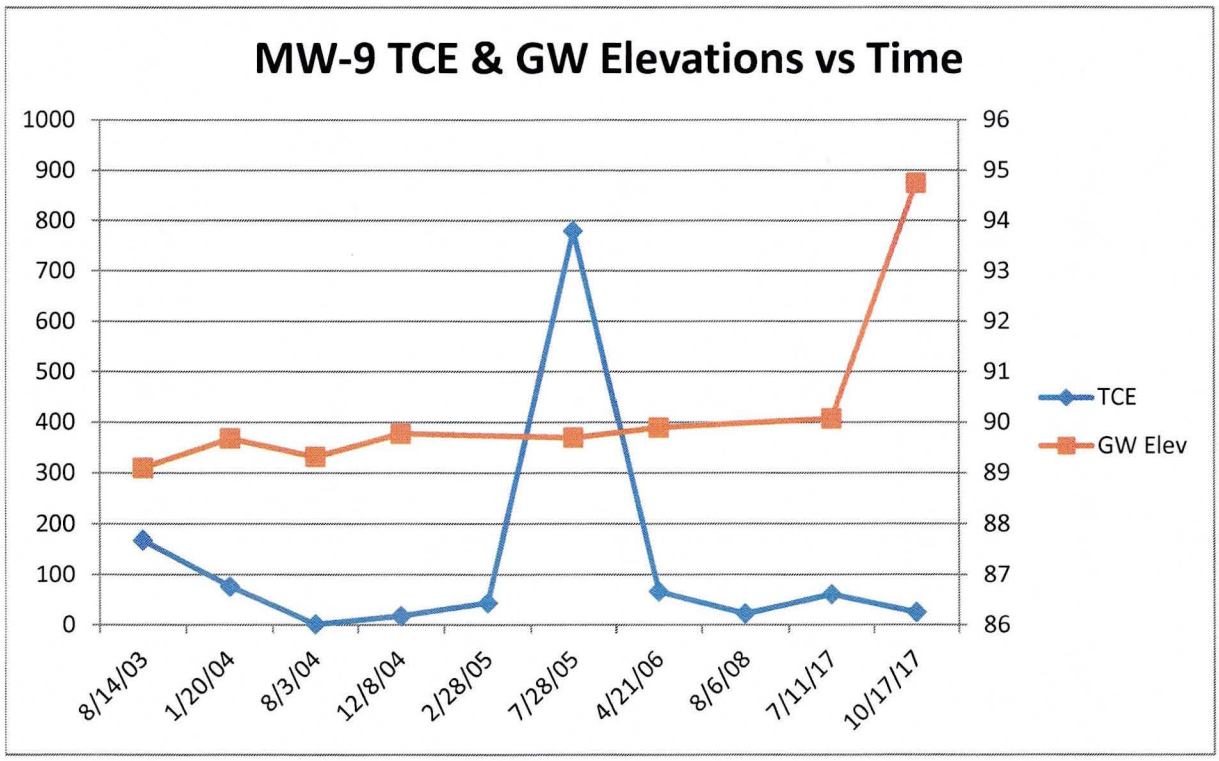
Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

Well Number	Date	[1]Total Well Depth	Ground Surface Elevation	[1]Top of Casing Elevation	[2]Depth to Water Below Ground	[1]Depth to Water Below Casing	Groundwater Elevation
MW-103	6/27/02	17.00	106.78	106.64	9.53	9.39	**97.25**
	8/14/03				10.14	10.00	**96.64**
	1/20/04				10.47	10.33	**96.31**
	8/3/04				9.49	9.35	**97.29**
	12/8/04				10.33	10.19	**96.45**
	2/28/05				10.60	10.46	**96.18**
	7/28/05				11.03	10.89	**95.75**
	4/21/06				9.05	8.91	**97.73**
	11/30/06				8.86	8.72	**97.92**
	8/6/08				NM	NM	**NM**
	7/11/17				NM	NM	**NM**
	10/17/17				10.67	10.53	**96.11**
	5/14/18				9.26	9.12	**97.52**
PZ-1	8/3/04	27.00	107.22	106.67	18.78	18.23	**88.44**
	12/8/04				19.52	18.97	**87.70**
	2/28/05				20.30	19.75	**86.92**
	7/28/05				18.27	17.72	**88.95**
	4/21/06				18.24	17.69	**88.98**
	11/30/06				17.48	16.93	**89.74**
	8/6/08				18.23	17.68	**88.99**
	7/11/17				NM	NM	**NM**
	10/17/17				17.64	17.09	**89.58**
	5/14/18				17.03	16.48	**90.19**
PZ-2	7/28/05	40.00	107.21	106.71	20.70	20.20	**86.51**
	4/21/06				19.68	19.18	**87.53**
	11/30/06				19.09	18.59	**88.12**
	8/6/08				16.02	15.52	**91.19**
	7/11/17				NM	NM	**NM**
	10/17/17				18.82	18.32	**88.39**
	5/14/18				17.03	16.53	**90.18**

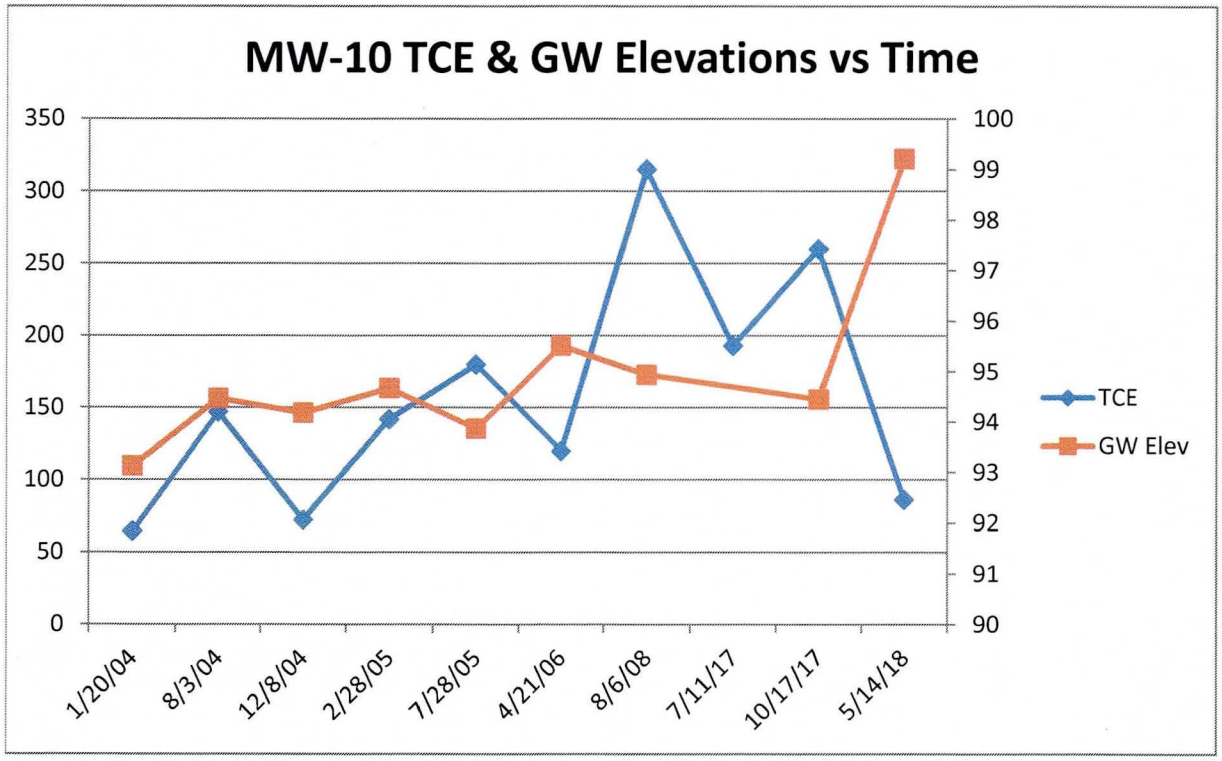
Notes:
1. All measurements are presented in feet.
2. "[1]" Measured from the north rim of the top of well casing.
3. "[2]" Calculated based on depth to water measurements and survey results.

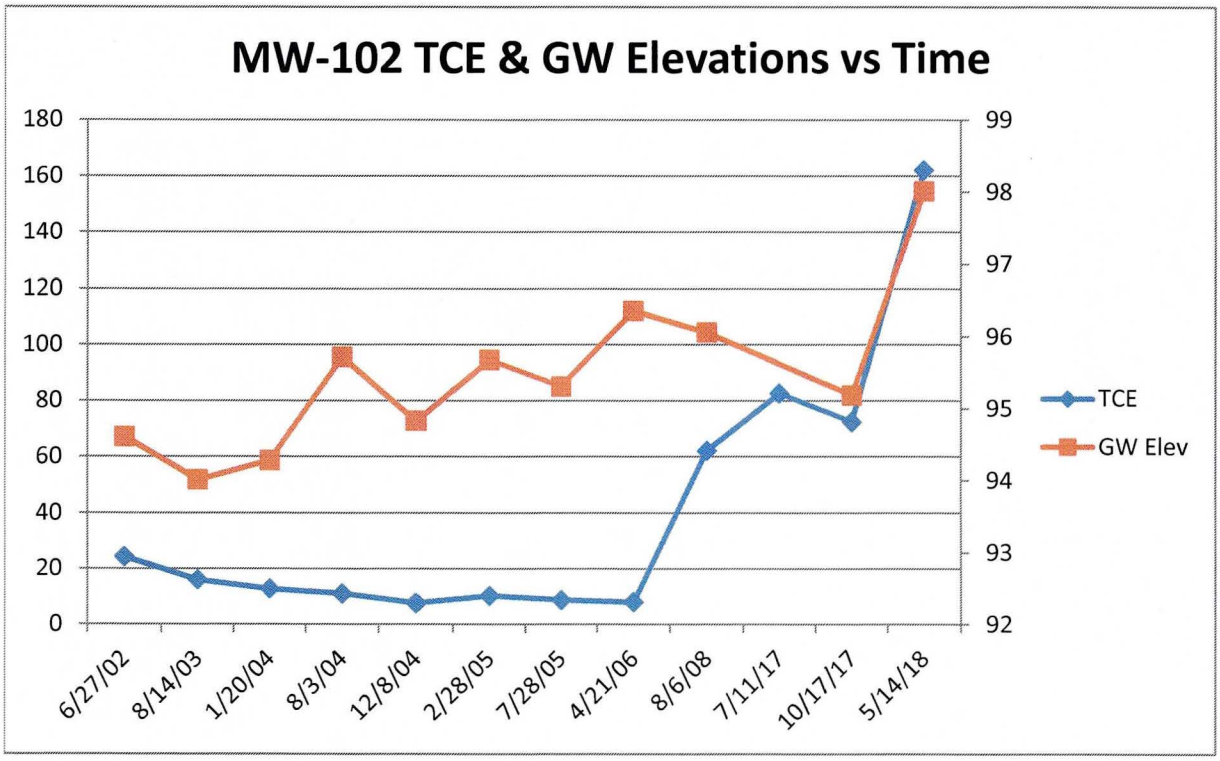
A.7 TCE vs GW Elevation Trend Data Graphs (Pg 1 of 3)
Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI



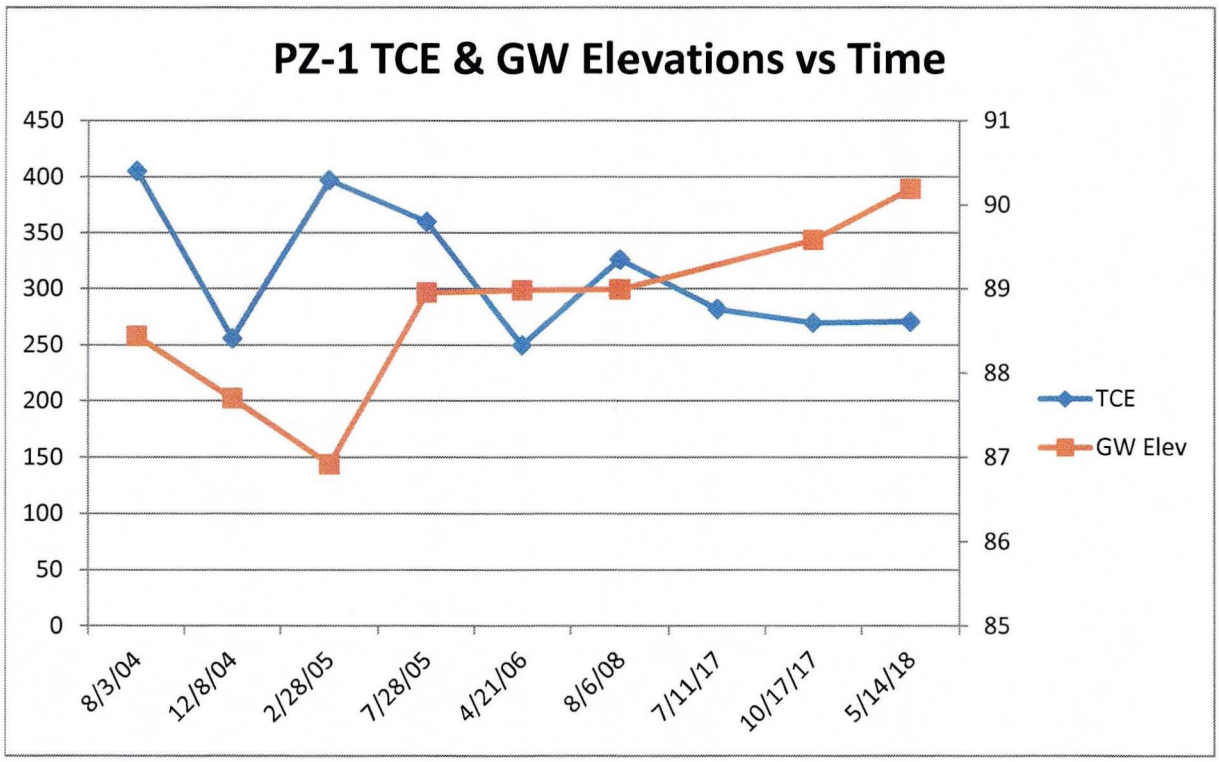


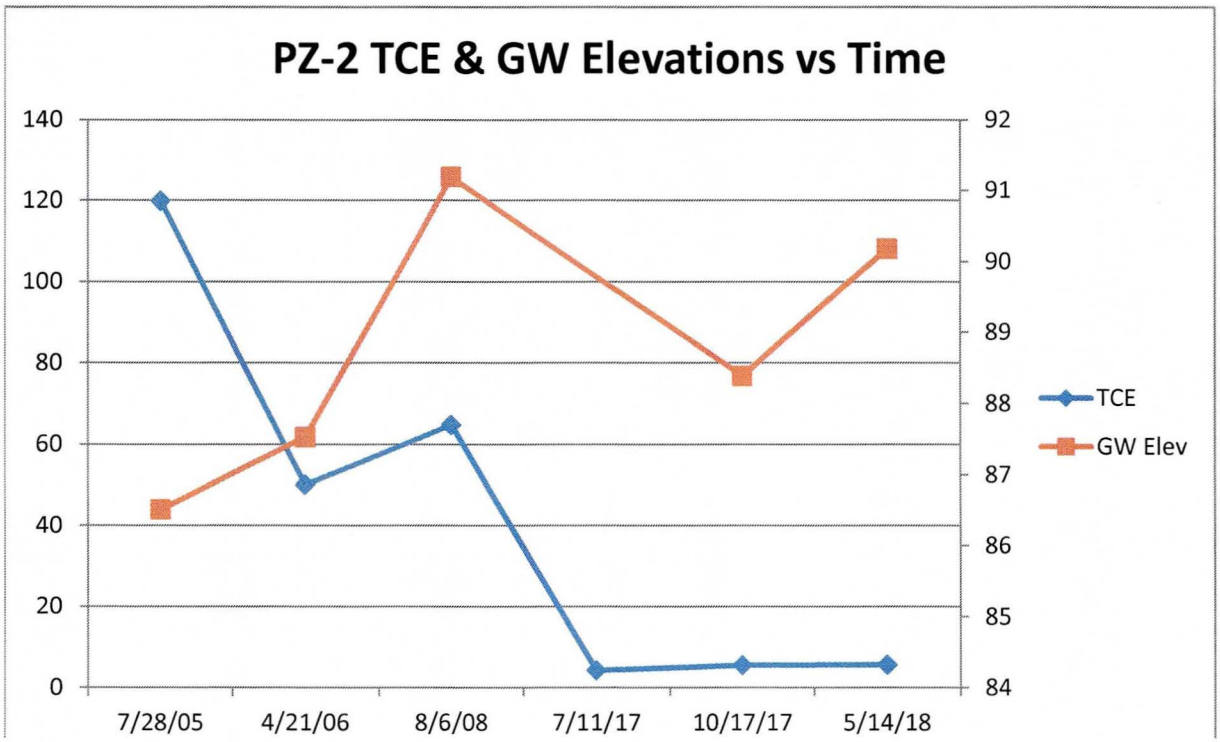
A.7 TCE vs GW Elevation Trend Data Graphs (Pg 2 of 3)
Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI

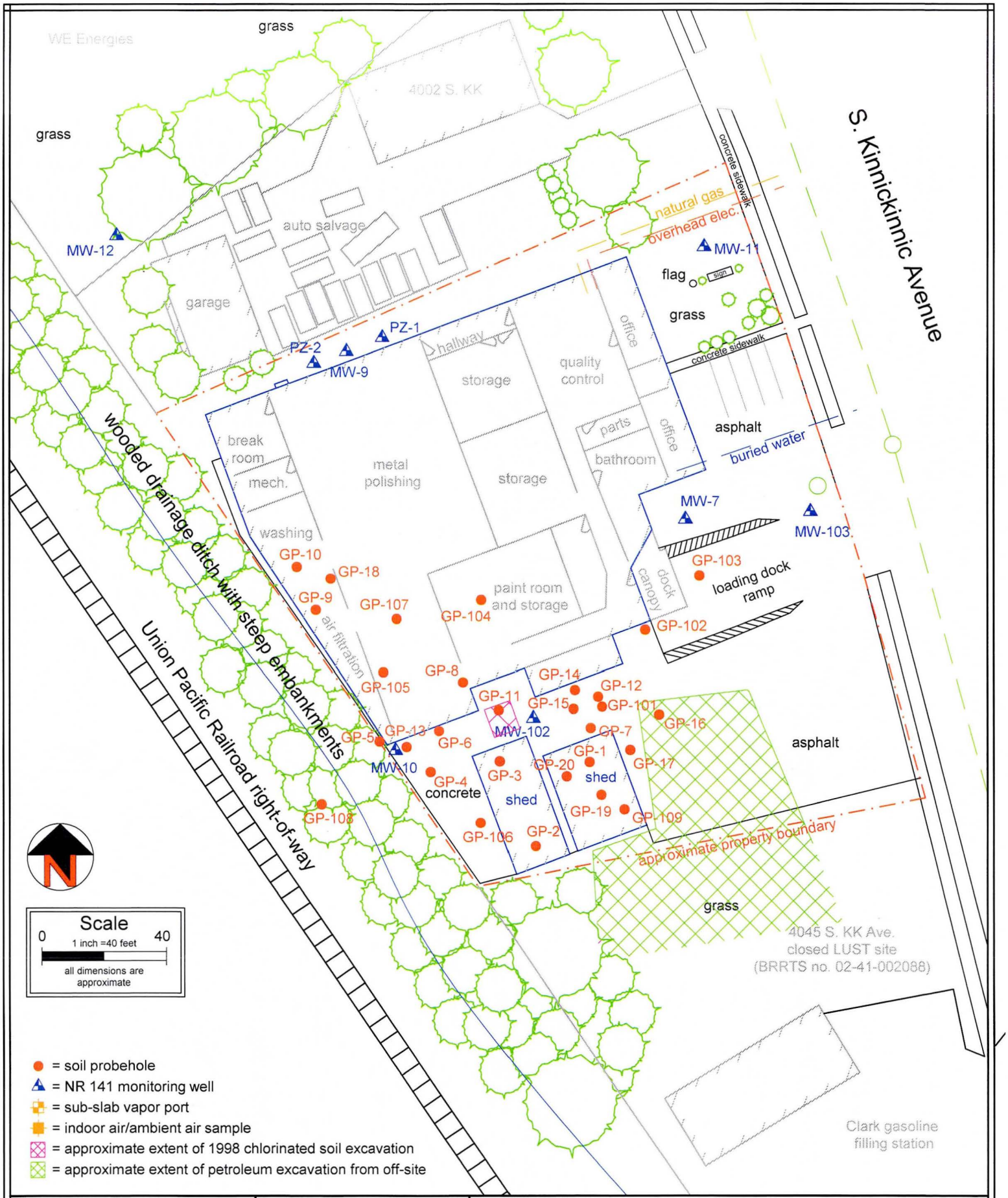




A.7 TCE vs GW Elevation Trend Data Graphs (Pg 3 of 3)
Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue, St. Francis, WI



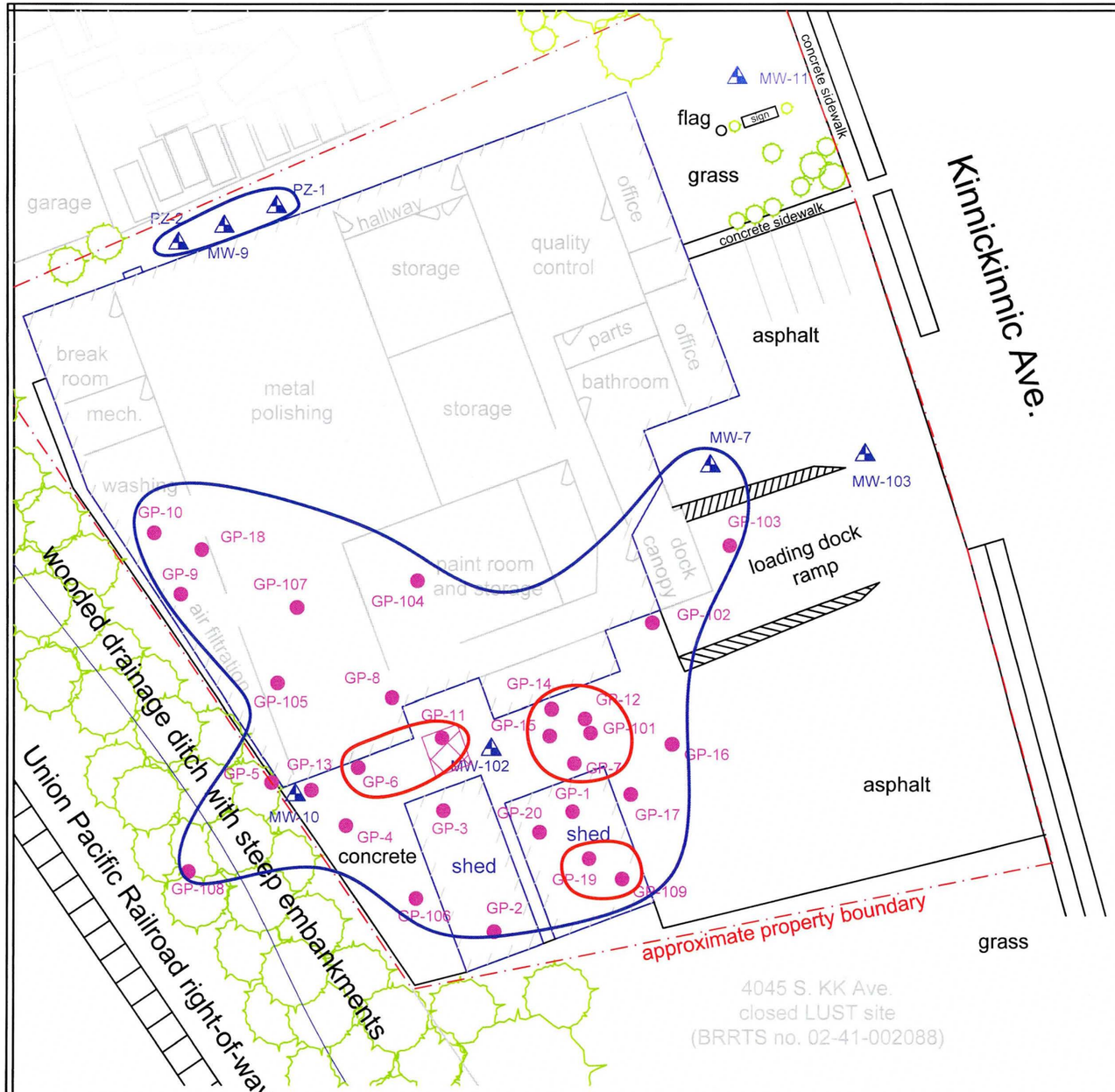




ReadyEarth Consulting, Inc.

Drawing No.: 17-0301a
DWG Date: 10-16-17
Rev Date:
Drafted by: JEB

B.1.b Detailed Site Features Map
4021 S. Kinnickinnic Avenue
St. Francis, Wisconsin



GP-1	
7-7-99	0-2'
PCE	*350*
1,1,1-TCA	*230*
TCE	*500*
xylenes	34

GP-2	
7-7-99	0-2'
toluene	44
1,1,1-TCA	*220*

GP-3	
7-7-99	4-6'
1,1,1-TCA	*1,500*
TCE	*1,100*

GP-4	
7-7-99	4-6'
PCE	*850*
1,1,1-TCA	*360*
TCE	*2,200*

GP-5	
7-7-99	4-6'
PCE	*530*
1,1,1-TCA	*1,000*
TCE	*5,300*

GP-6		
7-7-99	2-4'	
cis-1,2-DCE	*120*	
PCE	*13,000*	
toluene	83	
1,1,1-TCA	*2,500*	
1,1,2-TCA	*32*	
TCE	***18,000***	
TCFM	28 J	

GP-7	
7-7-99	0-2'
toluene	*2,700*
1,1,1-TCA	*3,200*
TCE	***3,000***
xylenes	125

GP-8	
7-7-99	4-6'
1,2-DCA	32
cis-1,2-DCE	*61*
PCE	*1,100*
1,1,1-TCA	*2,100*
TCE	*16,000*

GP-9	
7-7-99	4-6'
1,1,1-TCA	110
TCE	*560*

GP-10	
7-7-99	4-6'
PCE	*260*
1,1,1-TCA	*240*
TCE	*740*

GP-11	
7-7-99	0-2'
1,1-DCA	130
cs-1,2-DCE	*75*
PCE	*5,700*
1,1,1-TCA	*3,300*
1,1,2-TCA	*39*
TCE	***7,200***

GP-12	
7-7-99	0-2'
1,1-DCA	53
PCE	*810*
toluene	110
1,1,1-TCA	*5,100*
1,1,2-TCA	*57*
TCE	***29,000***

GP-13	
7-7-99	4-6'
PCE	*100*
1,1,1-TCA	*420*
TCE	*4,400*

GP-14	
7-7-99	0-2'
1,1-DCA	220
1,1-DCE	*35*
cis-1,2-DCE	33
PCE	*1,200*
1,1,1-TCA	*2,000*
TCE	***4,600***

GP-15	
7-7-99	0-2'
n-butylbenz	62
sec-butylbenz	31
1,1-DCA	310
1,1-DCE	*56*
p-isoptoluene	30
n-propylbenz	54
PCE	*480*
1,1,1-TCA	*2,500*
TCE	***1,700***
TMBs	175

GP-16	
7-7-99	0-2'
sec-butylbenz	48
naphthalene	170
TCE	*45*

GP-17	
7-7-99	6-8'
PCE	*28*
1,1,1-TCA	72
TCE	*370*

GP-18	
7-7-99	4-6'
1,1,1-TCA	39
TCE	*200*

GP-19	
7-7-99	0-2'
sec-butylbenz	66
naphthalene	27
PCE	*390*
toluene	60
1,1,1-TCA	*780*
TCE	***4,700***
TCFM	72
TMBs	107

GP-20		
7-8-99	0-2'	8-10'
1,1-DCA	120	<25
cis-1,2-DCE	26	*40*
ethylbenzene	37	<25
PCE	*1,000*	<25
1,1,1-TCA	*620*	<25
TCE	*520*	*160*
TCFM	45 J	<25
TMBs	34	<75
xylenes	<75	<75

GP-101	
6-27-00	2'
1,1-DCA	74
PCE	*450*
1,1,1-TCA	*5,000*
TCE	***37,000***

GP-102	
6-27-00	2'
1,1,1-TCA	72
TCE	*35*

GP-103	
6-27-00	2'
1,1,1-TCA	73
TCE	*81*

GP-104		
6-28-00	3'	8'
cis-1,2-DCE	<25	32
PCE	*160*	*100*
1,1,1-TCA	*170*	*450*
TCE	*850*	*1,900*

GP-105		
6-28-00	3'	8'
TCE	*35*	*80*

GP-106	
6-28-00	2'
n-butylbenz	330
sec-butylbenz	36
ethylbenzene	49
PCE	*290*
toluene	920
1,1,1-TCA	*530*
TCE	*410*
TMBs	1,260
xylenes	1,340

GP-107		
6-28-00	3'	8'
toluene	59	<25
1,1,1-TCA	32	31
TCE	*43*	*68*

GP-108	
6-28-00	2'
PCE	*190*
toluene	85
1,1,1-TCA	*220*
TCE	*100*
xylenes	230

GP-109		
6-27-00	3'	8'
1,1,1-TCA	58	84
TCE	***1,900***	*920*

PZ-1	
7-26-04	10-12'
n-butylbenz	7,060
tert-butylbenz	1,240
ethylbenzene	358
isopropylbenz	2,870
p-isopropyltol	7,840
meth chlor	*760*
naphthalene	*10,700*
n-propylbenz	7,290
TMBs	*71,250*
xylenes	*6,540*

PZ-2	
4-11-05	10-12'
n-butylbenz	1,340
ethylbenzene	30
p-isopropyltol	835
naphthalene	333
n-propylbenz	1,020
TMBs	1,260
xylenes	48

= NR 141 monitoring well
= soil probehole
= approximate area of soil excavation (1998)
= approximate extent of soil impacts exceeding RCLs for the groundwater pathway
= approximate extent of soil impacts exceeding RCLs for the direct contact pathway

Scale
0 1 inch =30 feet 30
all dimensions are approximate

PCE = tetrachloroethene
TCE = trichloroethene
1,1,1-TCA = 1,1,1-trichloroethane
1,1,2-TCA = 1,1,2-trichloroethane
1,1-DCA = 1,1-dichcloroethane
1,2-DCA = 1,2-dichloroethane
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
TCFM = trichlorofluoromethane
TMBs = trimethylbenzenes
n-butylbenz = n-butylbenzene
sec-butylbenz = sec-butylbenzene
tert-butylbenze = tert-butylbenzene
isopropylbenz = isopropylbenzene
n-propylbenz = n-propylbenzene
meth chlor = methylene chloride
p-isopropyltol = p-isoprolpyltoluene

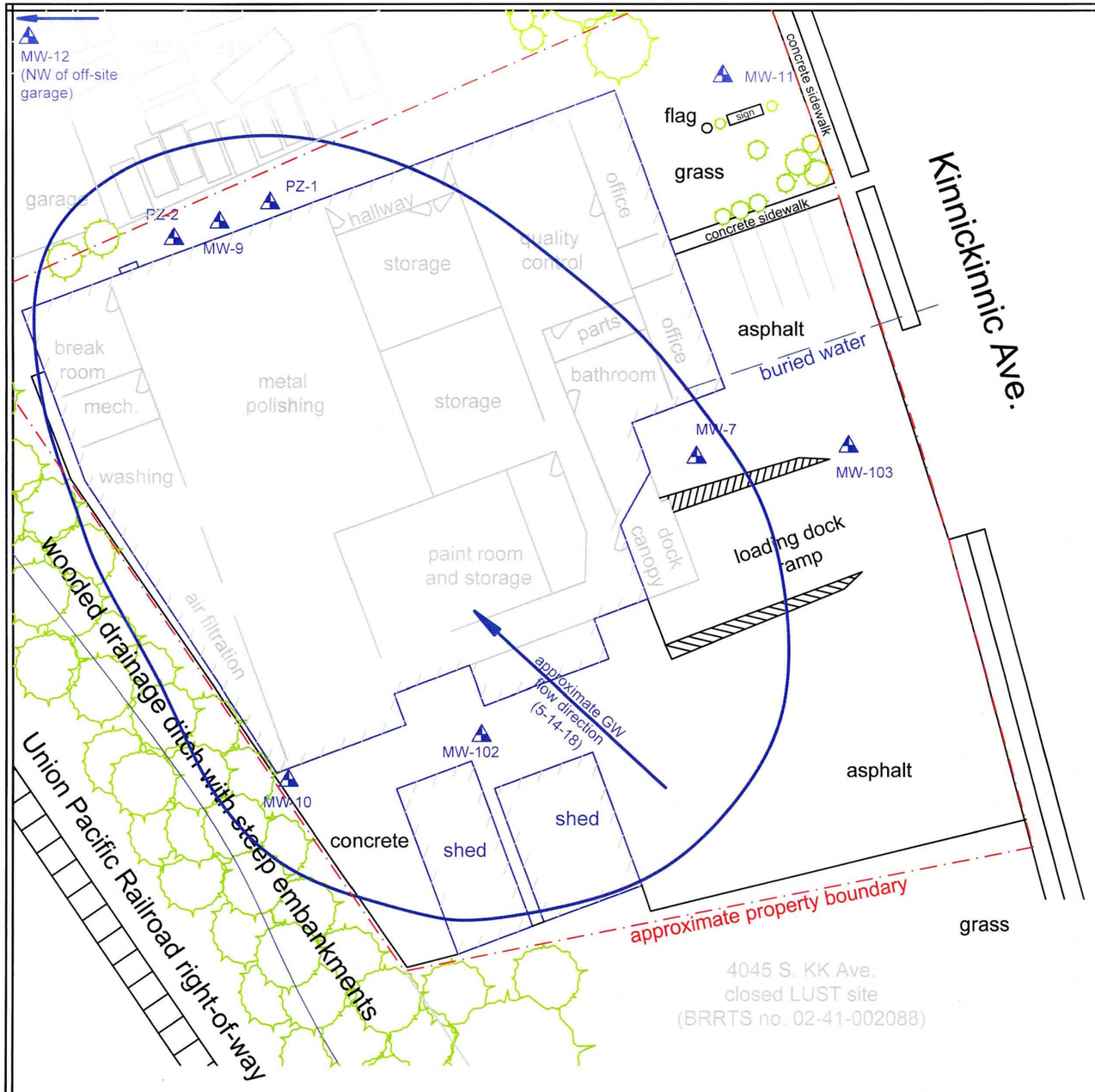
notes:
1.) All concentrations are shown in parts per billion (ppb).
2.) Concentrations in **red bold** exceed their RCLs for the non-industrial direct contact pathway (only within the to 4 feet bgs). If also in italics, the concentration exceeds its groundwater pathway RCL.
3.) Concentrations in green bold and underlined exceed their RCLs for the industrial direct contact pathway (only within the top 4 feet bgs). If also in italics, the concentration exceeds its groundwater pathway RCL.
4.) Concentrations in *blue italics* exceed their RCLs for the groundwater pathway.
5.) ReadyEarth obtained all soil analytical results from tables within the DNR file and not through laboratory reports. ReadyEarth assumes that the information submitted to the DNR is accurate.

B.2.a Soil Contamination Map

Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue
St. Francis, Wisconsin

Drawing No.: 17-0301c
DWG Date: 05-27-18
Rev Date:
Drafted by: JEB

ReadyEarth Consulting, Inc.



▲ = NR 141 monitoring well
● = soil probehole
⬭ = approximate extent of groundwater impacts exceeding preventive action limits (PALs)

1,2-DCA = 1,2-dichloroethane
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
PCE = tetrachloroethene
1,1,1-TCA = 1,1,1-trichloroethane
1,1,2-TCA = 1,1,2-trichloroethane
TCE = trichloroethene
TMBs = trimethylbenzenes
VC = vinyl chloride

Scale
0 — 30
1 inch =30 feet
all dimensions are approximate

notes:
1.) All concentrations are shown in parts per billion (ppb) and only concentrations detected above a PAL during the past 4 events are displayed.
2.) Concentrations in **red bold** exceed their enforcement standards (ESs).
3.) Concentrations in *blue italics* exceed their preventive action limits (PALs).
5.) ReadyEarth obtained historic groundwater analytical results from tables within the DNR file and not through laboratory reports. ReadyEarth assumes that the information submitted to the DNR is accurate.

MW-7

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	<1.0	<0.50	<0.50	<0.50
1,2-DCA	<1.0	<0.17	*1.4*	<0.17
1,1-DCE	<1.0	<0.41	<0.41	<0.41
cis-1,2-DCE	<1.0	<0.26	<0.26	<0.26
ethylbenzene	<1.0	<0.50	<0.50	<0.50
naphthalene	<5.0	<2.5	<2.5	<2.5
PCE	*3.8*	*2.1*	*1.8*	*2.3*
1,1,1-TCA	38.7	27.8	20.4	21.1
1,1,2-TCA	na	<0.20	<0.20	<0.20
TCE	**82.8**	**45.0**	**42.2**	**39.5**
TMBs	<2.0	<1.0	<1.0	<1.0
VC	<0.6	<0.18	<0.18	<0.18

MW-12

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	-	<0.50	-	<0.50
1,2-DCA	-	<0.17	-	<0.17
1,1-DCE	-	<0.41	-	<0.41
cis-1,2-DCE	-	<0.26	-	<0.26
ethylbenzene	-	<0.50	-	<0.50
naphthalene	-	<2.5	-	<2.5
PCE	-	<0.50	-	<0.50
1,1,1-TCA	-	<0.50	-	<0.50
1,1,2-TCA	-	<0.20	-	<0.20
TCE	-	<0.33		<0.33
TMBs	-	<1.0		<1.0
VC	-	<0.18		<0.18

MW-9

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	<1.0	*1.3 J*	*3.1*	<1.2
1,2-DCA	<1.0	<0.42	<0.42	<0.42
1,1-DCE	<1.0	<1.0	*1.5 J*	<1.0
cis-1,2-DCE	*47.7*	*45.7*	**86.1**	**38.4**
ethylbenzene	<1.0	148	122	80.5
naphthalene	<5.0	*32.9*	*51.5*	*20.9*
PCE	<1.0	<1.2	<1.2	<1.2
1,1,1-TCA	<1.0	<1.2	<1.2	<1.2
1,1,2-TCA	na	<0.49	<0.49	<0.49
TCE	**66.4**	**22.6**	**61.2**	**25.2**
TMBs	<2.0	*404.6*	**501**	*253*
VC	**2.1**	**13.6**	**22.4**	**12.9**

MW-102

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	<1.0	<0.50	<0.50	<0.50
1.2-DCA	<1.0	*1.1*	<0.17	<0.17
1,1-DCE	<1.0	<0.41	<0.41	*0.87 J*
cis-1,2-DCE	*13.1*	5.7	*9.1*	*10.6*
ethylbenzene	<1.0	<0.50	<0.50	<0.50
naphthalene	<5.0	<2.5	<2.5	<2.5
PCE	*2.6*	*0.75 J*	<0.50	*1.6*
1,1,1-TCA	*48.1*	19.3	9.8	*69.0*
1,1,2-TCA	na	<0.20	<0.20	*1.3*
TCE	**62.2**	**82.7**	**72.5**	**162**
TMBs	<2.0	<1.0	<1.0	<1.0
VC	<0.6	<0.18	<0.18	<0.18

MW-10

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	<2.0	<0.50	<1.2	<0.50
1,2-DCA	<5.0	<0.17	<0.42	<0.17
1,1-DCE	<5.0	<0.41	<1.0	<0.41
cis-1,2-DCE	<5.0	1.2	1.8 J	1.1
ethylbenzene	<5.0	<0.50	<1.2	<0.50
naphthalene	<25.0	<2.5	<6.2	<2.5
PCE	***46.3***	**59.7**	**92**	**11.3**
1,1,1-TCA	*147*	*80.3*	*85.7*	35.5
1,1,2-TCA	na	<0.20	<0.49	<0.20
TCE	**315**	**193**	**260**	**86.3**
TMBs	<10.0	<1.0	<2.4	<1.0
VC	<3.0	<0.18	**0.68 J**	<0.18

MW-103

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	-	<0.50	-	-
1,2-DCA	-	<0.17	-	-
1,1-DCE	-	<0.41	-	-
cis-1,2-DCE	-	<0.26	-	-
ethylbenzene	-	<0.50	-	--
naphthalene	-	<2.5	-	-
PCE	-	<0.50	-	-
1,1,1-TCA	-	<0.50	-	-
1,1,2-TCA	-	<0.20	-	-
TCE	-	<0.33	-	-
TMBs	-	<1.0	-	-
VC	-	<0.18	-	-

MW-11

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	-	<0.50	-	-
1,2-DCA	-	<0.17	-	-
1,1-DCE	-	<0.41	-	-
cis-1,2-DCE	-	<0.26	-	-
ethylbenzene	-	<0.50	-	--
naphthalene	-	<2.5	-	-
PCE	-	<0.50	-	-
1,1,1-TCA	-	<0.50	-	-
1,1,2-TCA	-	<0.20	-	-
TCE	-	<0.33	-	-
TMBs	-	<1.0	-	-
VC	-	<0.18	-	-

PZ-1

	8-6-08	7-11-17	10-17-17	5-14-17
benzene	<5.0	<0.50	<0.50	<0.50
1,2-DCA	<5.0	0.26 J	<0.17	<0.17
1,1-DCE	**56.2**	**32**	**36.2**	**34.3**
cis-1,2-DCE	**229**	**129**	**185**	**139**
ethylbenzene	<5.0	<0.50	<0.50	<0.50
naphthalene	<25.0	<2.5	<2.5	<2.5
PCE	<5.0	*0.89 J*	*1.3*	*0.63 J*
1,1,1-TCA	**326**	*123*	*121*	*120*
1,1,2-TCA	<7.0	*0.54 J*	<0.20	0.44 J
TCE	**326**	**282**	**270**	**271**
TMBs	<10.0	<1.0	<1.0	<1.0
VC	**10.9**	**5.8**	**5.4**	**7.9**

PZ-2

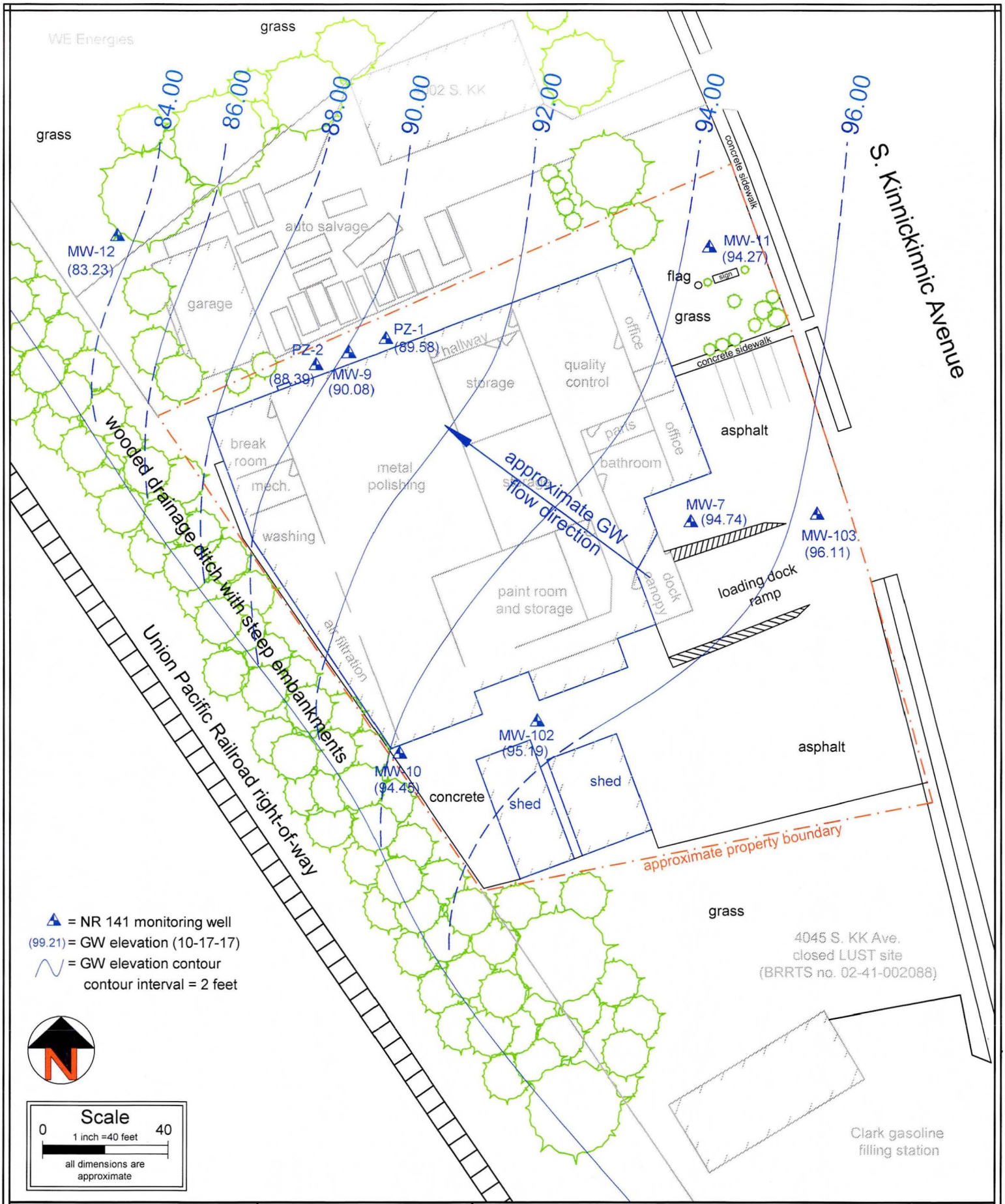
	8-6-08	7-11-17	10-17-17	5-14-17
benzene	<1.0	<0.50	<0.50	<0.50
1,2-DCA	<1.0	<0.17	<0.17	<0.17
1,1-DCE	<1.0	<0.41	<0.41	<0.41
cis-1,2-DCE	*41.5*	*12.3*	*16.4*	*18.3*
ethylbenzene	<1.0	<0.50	<0.50	<0.50
naphthalene	<5.0	<2.5	<2.5	<2.5
PCE	<1.0	<0.50	<0.50	<0.50
1,1,1-TCA	<1.0	<0.50	<0.50	<0.50
1,1,2-TCA	<1.4	<0.20	<0.20	<0.20
TCE	**64.8**	*4.3*	**5.6**	**5.7**
TMBs	<2.0	<1.0	<1.0	<1.0
VC	**1.9**	<0.18	<0.18	<0.18

B.3.b Groundwater Isoconcentration Map

Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue
St. Francis, Wisconsin

Drawing No.: 17-0301e
DWG Date: 05-27-18
Rev Date:
Drafted by: JEB

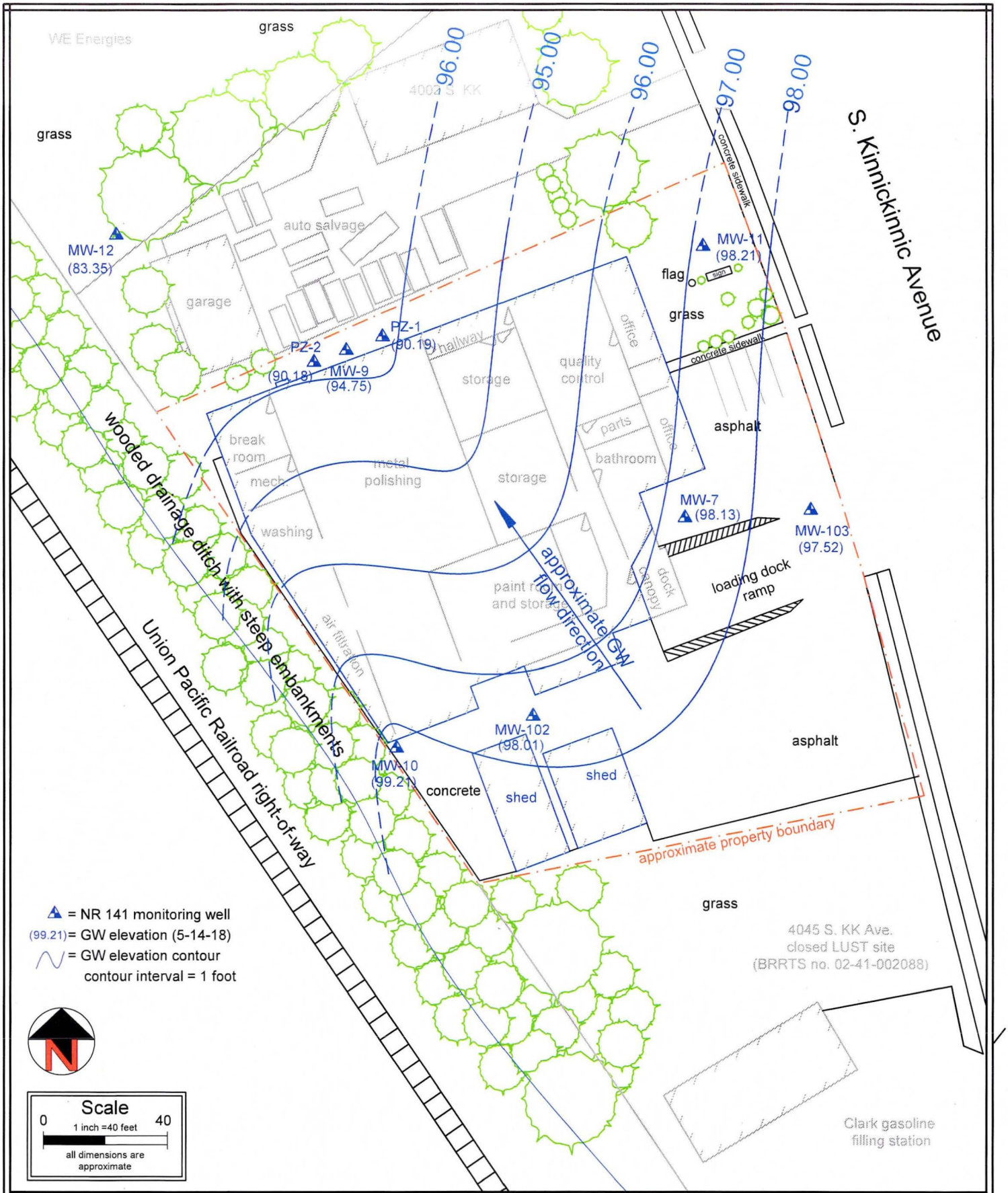
ReadyEarth Consulting, Inc.



ReadyEarth Consulting, Inc.

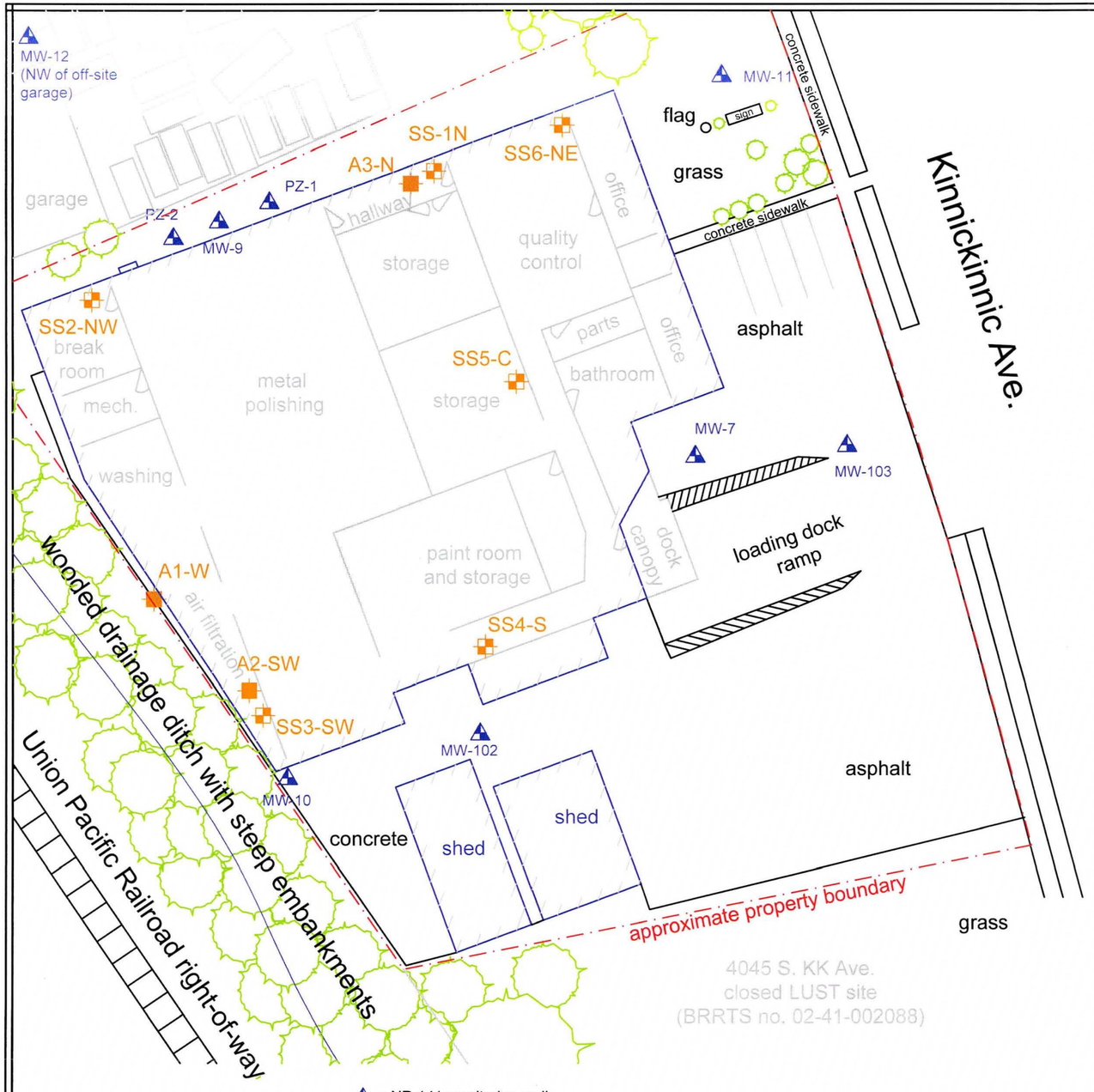
Drawing No.:	17-0301f
DWG Date:	5-27-18
Rev Date:	
Drafted by:	JEB

B.3.c.1 Groundwater Flow Direction Map (10-17-17)
4021 S. Kinnickinnic Avenue
St. Francis, Wisconsin



Drawing No.: 17-0301g	**B.3.c.2 Groundwater Flow Direction Map (5-14-18)**
DWG Date: 5-27-18	4021 S. Kinnickinnic Avenue
Rev Date:	St. Francis, Wisconsin
Drafted by: JEB	

ReadyEarth Consulting, Inc.



Sub-Slab Vapor Results

		5-2-08	8-18-17
SS1-N	cis-1,2-DCE	<0.72	<0.072
	trans-1,2-DCE	<1.4	<0.065
	PCE	<0.72	0.26
	TCE	<0.72	3.8

		4-25-08	8-18-17
SS2-NW	cis-1,2-DCE	<0.70	0.17 J
	trans-1,2-DCE	<1.3	<0.065
	PCE	0.73	0.17
	TCE	125	18.2

		4-25-08	8-18-17
SS3-SW	cis-1,2-DCE	<3.5	0.19 J
	trans-1,2-DCE	<6.6	<0.065
	PCE	<3.5	8.4
	TCE	<3.5	**362**

		4-25-08	8-18-17
SS4-S	cis-1,2-DCE	-	19.3
	trans-1,2-DCE	-	7.4
	PCE	-	309
	TCE	-	**6,220**

		4-25-08	8-18-17
SS5-C	cis-1,2-DCE	-	<0.074
	trans-1,2-DCE	-	<0.067
	PCE	-	4.1
	TCE	-	**362**

		4-25-08	8-18-17
SS6-NE	cis-1,2-DCE	-	<0.074
	trans-1,2-DCE	-	<0.067
	PCE	-	0.49
	TCE	-	1.3

Indoor/Ambient Air Results

		5-2-08
AA1-W	cis-1,2-DCE	<0.94
	trans-1,2-DCE	<1.8
	PCE	<0.94
	TCE	<0.94

		4-25-08
A2-SW	cis-1,2-DCE	<0.94
	trans-1,2-DCE	<1.8
	PCE	<0.94
	TCE	<0.94

		4-25-08
A3-N	cis-1,2-DCE	<0.70
	trans-1,2-DCE	<1.3
	PCE	<0.70
	TCE	<0.70

= NR 141 monitoring well
= sub-slab vapor sample point
= indoor/ambient air sample point

cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene

	VRSL	VAL
cis-1,2-DCE	**ns**	**ns**
trans-1,2-DCE	**ns**	**ns**
PCE	**2,700**	**27**
TCE	**170**	**1.7**

Scale
0 — 1 inch =30 feet — 30
all dimensions are approximate

notes:
1.) All concentrations are shown in parts per billion by volume (ppbv).
2.) Concentrations in **red bold** exceed their vapor risk screening levels (VRSLs) for sub-slab vapors or vapor action levels (VALs) for indoor/ambient air.
3.) VRSLs were obtained from the DNR Quick Look-Up table based on the EPA regional screening table for indoor VALs. The VRSLs were determined from the VALs for large commercial/industrial usage and an attenuation factor of 0.03.
4.) The sub-slab samples were collected with 6-liter Summa canisters and analyzed via the TO-15 method
5.) ReadyEarth obtained the historic data from actual laboratory reports contained in the DNR file.

B.4.a Vapor Intrusion Map
Former MPL Corp. Wire & Metal Specialties
4021 S. Kinnickinnic Avenue
St. Francis, Wisconsin

Drawing No.: 17-0301h
DWG Date: 05-27-18
Rev Date:
Drafted by: JEB

ReadyEarth Consulting, Inc.

This section describes the typical procedures ReadyEarth uses to sample sub-slab vapors. ReadyEarth has developed these procedures in general accordance with the current DNR vapor intrusion guidance (PUB-RR-800 and RR-986).

Sub-Slab Vapor Probe Installation Procedures

A 1" diameter hole is drilled to terminate between 1" and 1½" into the concrete slab. A 5/8" diameter hole is then drilled within the larger hole and through the slab into the underlying aggregate or soil. The drilled holes are cleaned out with a shop vacuum and the sides of the hole are scraped to remove the concrete dust. A bead of non-VOC wax is placed around the bottom portion of a galvanized sleeve and coupler (the "probe"), and the probe is inserted into the drilled hole. The probe is seated so that the wax seals the lower portion of the drilled hole and so that the probe is installed approximately flush with the floor. All threaded connections are national pipe thread (NPT) and sealed with Teflon tape. The probe is sealed with a threaded cap and Teflon tape, and the annular space between the probe and floor is sealed with hydraulic cement. The hydraulic cement is allowed to set prior to sampling activities.

Sub-Slab Vapor Probe Sampling Procedures

The probe cap is removed and a ball valve with threads on one end and a barbed fitting on the other is threaded into the probe. The threads are wrapped with Teflon tape and the valve is in the closed position. Dedicated tubing is slipped onto the barbed fitting and routed to a barbed, brass "T" that routes tubing to a 6L summa canister (valve closed) and to an "upper" valve (valve open). The tubing is connected to the summa canister with Swagelok fittings supplied by the laboratory. The summa canister is equipped with a vacuum gauge and a flow controller to collect the sample with a flow rate of less than 200 ml/min (approximately 30 to 45 minutes).

A shut-in test is performed with the upper valve open and applying a vacuum of approximately 7" Hg (approximately 100" water) to the system and monitored over approximately 2 minutes for dissipation. If any leaks are detected, the connections are checked and tightened until it can pass the shut-in test.

Once the system passes the shut in test, the floor valve is opened and a helium shroud is placed over the floor valve. The helium shroud has tubing entering the top to apply helium to the system, a seal on the bottom, and an available sampling port. A helium meter is attached to the sampling apparatus near the upper valve, and helium is applied

to the system to at least 40% by volume. The helium meter is monitored over two minutes for any detection. If there is any detection, wax is placed over the concrete floor seal and the test is repeated. In the event of a second failure, the threads of the floor valve would be re-wrapped with Teflon tape and the test would be repeated (ReadyEarth has not had to resort to that measure).

Once the system passes both the shut-in and helium shroud tests, a photoionization detector is placed of the tubing of the upper valve and the system is purged for approximately 1 minute (the stabilized PID reading is recorded). The upper valve is then closed and the summa valve is opened. The start time and initial vacuum reading on the summa canister gauge is recorded. Once the vacuum gauge reads approximately 0 or at least 45 minutes has elapsed, the summa valve is closed, the end time and final vacuum reading are recorded, and the entire sampling apparatus is removed. The probe cap is re-wrapped with Teflon tape and the probe is re-sealed.

ReadyEarth submits the summa canisters under standard chain-of-custody protocol to a Wisconsin-certified laboratory for the analyses required for the site. The chain of custody protocol includes recording start and end times, start and end vacuum readings, unique summa canister number, and unique flow control number.

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www.pacelabs.com

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July 25, 2017

Jason Bartley
ReadyEarth Consulting, Inc.
P.O. Box 365
Pewaukee, WI 53072

RE: Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Dear Jason Bartley:
Enclosed are the analytical results for sample(s) received by the laboratory on July 18, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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SAMPLE SUMMARY

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40153381001	MW-12	Water	07/11/17 11:00	07/18/17 09:35
40153381002	MW-11	Water	07/11/17 11:25	07/18/17 09:35
40153381003	MW-103	Water	07/11/17 11:45	07/18/17 09:35
40153381004	MW-102	Water	07/11/17 12:00	07/18/17 09:35
40153381005	PZ-2	Water	07/11/17 12:35	07/18/17 09:35
40153381006	MW-7	Water	07/11/17 12:50	07/18/17 09:35
40153381007	PZ-1	Water	07/11/17 13:10	07/18/17 09:35
40153381008	MW-10	Water	07/11/17 13:30	07/18/17 09:35
40153381009	MW-9	Water	07/11/17 12:20	07/18/17 09:35

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SAMPLE ANALYTE COUNT

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40153381001	**MW-12**	EPA 8260	LAP	64
40153381002	**MW-11**	EPA 8260	LAP	64
40153381003	**MW-103**	EPA 8260	LAP	64
40153381004	**MW-102**	EPA 8260	LAP	64
40153381005	**PZ-2**	EPA 8260	LAP	64
40153381006	**MW-7**	EPA 8260	LAP	64
40153381007	**PZ-1**	EPA 8260	LAP	64
40153381008	**MW-10**	EPA 8260	LAP	64
40153381009	**MW-9**	EPA 8260	MDS	64

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-12 **Lab ID: 40153381001** Collected: 07/11/17 11:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:05	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 15:05	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 15:05	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 15:05	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 15:05	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 15:05	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 15:05	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:05	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:05	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:05	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 15:05	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:05	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 15:05	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 15:05	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:05	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 15:05	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 15:05	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 15:05	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 15:05	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 15:05	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 15:05	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 15:05	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 15:05	98-82-8	
Methyl-tert-butyl ether	**1.9**	ug/L	1.0	0.17	1		07/20/17 15:05	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:05	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 15:05	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-12 **Lab ID: 40153381001** Collected: 07/11/17 11:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 15:05	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:05	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:05	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 15:05	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 15:05	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:05	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:05	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:05	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 15:05	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:05	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		07/20/17 15:05	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		07/20/17 15:05	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/20/17 15:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-11 **Lab ID: 40153381002** Collected: 07/11/17 11:25 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:27	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 15:27	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 15:27	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 15:27	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 15:27	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 15:27	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 15:27	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:27	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:27	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:27	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 15:27	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:27	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 15:27	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 15:27	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:27	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 15:27	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 15:27	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 15:27	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 15:27	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 15:27	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 15:27	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 15:27	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 15:27	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 15:27	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:27	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 15:27	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-11 **Lab ID: 40153381002** Collected: 07/11/17 11:25 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 15:27	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:27	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:27	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 15:27	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 15:27	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:27	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:27	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:27	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 15:27	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:27	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	61-130		1		07/20/17 15:27	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		1		07/20/17 15:27	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/20/17 15:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-103 **Lab ID: 40153381003** Collected: 07/11/17 11:45 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:49	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 15:49	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 15:49	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 15:49	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 15:49	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 15:49	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 15:49	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:49	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:49	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:49	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 15:49	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:49	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 15:49	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 15:49	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:49	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 15:49	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 15:49	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 15:49	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 15:49	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 15:49	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 15:49	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 15:49	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 15:49	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 15:49	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:49	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 15:49	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-103 **Lab ID: 40153381003** Collected: 07/11/17 11:45 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 15:49	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:49	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:49	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 15:49	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 15:49	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 15:49	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 15:49	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 15:49	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 15:49	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 15:49	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	61-130		1		07/20/17 15:49	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/20/17 15:49	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		07/20/17 15:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-102 **Lab ID: 40153381004** Collected: 07/11/17 12:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:11	630-20-6	
1,1,1-Trichloroethane	**19.3**	ug/L	1.0	0.50	1		07/20/17 16:11	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 16:11	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 16:11	79-00-5	
1,1-Dichloroethane	**5.3**	ug/L	1.0	0.24	1		07/20/17 16:11	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 16:11	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 16:11	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 16:11	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:11	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:11	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:11	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	95-50-1	
1,2-Dichloroethane	**1.1**	ug/L	1.0	0.17	1		07/20/17 16:11	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:11	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 16:11	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 16:11	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:11	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 16:11	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 16:11	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 16:11	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 16:11	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 16:11	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 16:11	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 16:11	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 16:11	98-82-8	
Methyl-tert-butyl ether	**0.58J**	ug/L	1.0	0.17	1		07/20/17 16:11	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:11	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 16:11	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	100-42-5	
Tetrachloroethene	**0.75J**	ug/L	1.0	0.50	1		07/20/17 16:11	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-102 **Lab ID: 40153381004** Collected: 07/11/17 12:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	108-88-3	
Trichloroethene	**82.7**	ug/L	1.0	0.33	1		07/20/17 16:11	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:11	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:11	75-01-4	
cis-1,2-Dichloroethene	**5.7**	ug/L	1.0	0.26	1		07/20/17 16:11	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 16:11	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:11	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:11	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:11	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 16:11	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:11	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		07/20/17 16:11	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		1		07/20/17 16:11	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/20/17 16:11	2037-26-5	

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: PZ-2 **Lab ID: 40153381005** Collected: 07/11/17 12:35 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:33	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 16:33	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 16:33	79-00-5	
1,1-Dichloroethane	**0.60J**	ug/L	1.0	0.24	1		07/20/17 16:33	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 16:33	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 16:33	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 16:33	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:33	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:33	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:33	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 16:33	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:33	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 16:33	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 16:33	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:33	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 16:33	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 16:33	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 16:33	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 16:33	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 16:33	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 16:33	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 16:33	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 16:33	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 16:33	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:33	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 16:33	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	127-18-4	

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: PZ-2 **Lab ID: 40153381005** Collected: 07/11/17 12:35 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	108-88-3	
Trichloroethene	**4.3**	ug/L	1.0	0.33	1		07/20/17 16:33	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:33	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:33	75-01-4	
cis-1,2-Dichloroethene	**12.3**	ug/L	1.0	0.26	1		07/20/17 16:33	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 16:33	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:33	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:33	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:33	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 16:33	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:33	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	61-130		1		07/20/17 16:33	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/20/17 16:33	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		07/20/17 16:33	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-7 **Lab ID: 40153381006** Collected: 07/11/17 12:50 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:55	630-20-6	
1,1,1-Trichloroethane	**27.8**	ug/L	1.0	0.50	1		07/20/17 16:55	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 16:55	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 16:55	79-00-5	
1,1-Dichloroethane	**0.83J**	ug/L	1.0	0.24	1		07/20/17 16:55	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 16:55	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 16:55	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 16:55	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:55	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:55	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:55	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 16:55	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:55	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 16:55	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 16:55	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:55	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 16:55	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 16:55	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 16:55	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 16:55	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 16:55	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 16:55	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 16:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 16:55	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 16:55	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:55	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 16:55	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	100-42-5	
Tetrachloroethene	**2.1**	ug/L	1.0	0.50	1		07/20/17 16:55	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-7 **Lab ID: 40153381006** Collected: 07/11/17 12:50 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	108-88-3	
Trichloroethene	**45.0**	ug/L	1.0	0.33	1		07/20/17 16:55	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:55	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:55	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 16:55	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 16:55	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 16:55	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 16:55	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 16:55	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 16:55	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 16:55	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		07/20/17 16:55	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		1		07/20/17 16:55	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/20/17 16:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: PZ-1 **Lab ID: 40153381007** Collected: 07/11/17 13:10 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:17	630-20-6	
1,1,1-Trichloroethane	**123**	ug/L	1.0	0.50	1		07/20/17 17:17	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 17:17	79-34-5	
1,1,2-Trichloroethane	**0.54J**	ug/L	1.0	0.20	1		07/20/17 17:17	79-00-5	
1,1-Dichloroethane	**41.4**	ug/L	1.0	0.24	1		07/20/17 17:17	75-34-3	
1,1-Dichloroethene	**32.0**	ug/L	1.0	0.41	1		07/20/17 17:17	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 17:17	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 17:17	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 17:17	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 17:17	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:17	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	95-50-1	
1,2-Dichloroethane	**0.26J**	ug/L	1.0	0.17	1		07/20/17 17:17	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:17	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 17:17	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 17:17	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:17	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 17:17	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 17:17	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 17:17	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 17:17	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 17:17	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 17:17	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 17:17	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 17:17	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 17:17	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:17	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 17:17	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	100-42-5	
Tetrachloroethene	**0.89J**	ug/L	1.0	0.50	1		07/20/17 17:17	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: PZ-1 **Lab ID: 40153381007** Collected: 07/11/17 13:10 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	108-88-3	
Trichloroethene	**282**	ug/L	1.0	0.33	1		07/20/17 17:17	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:17	75-69-4	
Vinyl chloride	**5.8**	ug/L	1.0	0.18	1		07/20/17 17:17	75-01-4	
cis-1,2-Dichloroethene	**129**	ug/L	1.0	0.26	1		07/20/17 17:17	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 17:17	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:17	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 17:17	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:17	98-06-6	
trans-1,2-Dichloroethene	**5.4**	ug/L	1.0	0.26	1		07/20/17 17:17	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:17	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	61-130		1		07/20/17 17:17	460-00-4	
Dibromofluoromethane (S)	107	%	67-130		1		07/20/17 17:17	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		07/20/17 17:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-10 **Lab ID: 40153381008** Collected: 07/11/17 13:30 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:39	630-20-6	
1,1,1-Trichloroethane	**80.3**	ug/L	1.0	0.50	1		07/20/17 17:39	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		07/20/17 17:39	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 17:39	79-00-5	
1,1-Dichloroethane	**0.49J**	ug/L	1.0	0.24	1		07/20/17 17:39	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 17:39	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		07/20/17 17:39	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 17:39	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 17:39	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 17:39	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:39	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 17:39	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:39	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		07/20/17 17:39	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		07/20/17 17:39	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:39	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		07/20/17 17:39	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 17:39	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 17:39	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 17:39	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 17:39	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 17:39	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		07/20/17 17:39	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		07/20/17 17:39	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 17:39	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:39	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 17:39	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	100-42-5	
Tetrachloroethene	**59.7**	ug/L	1.0	0.50	1		07/20/17 17:39	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-10 **Lab ID: 40153381008** Collected: 07/11/17 13:30 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	108-88-3	
Trichloroethene	**193**	ug/L	1.0	0.33	1		07/20/17 17:39	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:39	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:39	75-01-4	
cis-1,2-Dichloroethene	**1.2**	ug/L	1.0	0.26	1		07/20/17 17:39	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		07/20/17 17:39	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 17:39	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		07/20/17 17:39	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/20/17 17:39	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 17:39	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 17:39	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	61-130		1		07/20/17 17:39	460-00-4	
Dibromofluoromethane (S)	106	%	67-130		1		07/20/17 17:39	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		07/20/17 17:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-9 **Lab ID: 40153381009** Collected: 07/11/17 12:20 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.45**	ug/L	2.5	0.45	2.5		07/21/17 18:11	630-20-6	
1,1,1-Trichloroethane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.62**	ug/L	2.5	0.62	2.5		07/21/17 18:11	79-34-5	
1,1,2-Trichloroethane	**<0.49**	ug/L	2.5	0.49	2.5		07/21/17 18:11	79-00-5	
1,1-Dichloroethane	**<0.60**	ug/L	2.5	0.60	2.5		07/21/17 18:11	75-34-3	
1,1-Dichloroethene	**<1.0**	ug/L	2.5	1.0	2.5		07/21/17 18:11	75-35-4	
1,1-Dichloropropene	**<1.1**	ug/L	2.5	1.1	2.5		07/21/17 18:11	563-58-6	
1,2,3-Trichlorobenzene	**<5.3**	ug/L	12.5	5.3	2.5		07/21/17 18:11	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	96-18-4	
1,2,4-Trichlorobenzene	**<5.5**	ug/L	12.5	5.5	2.5		07/21/17 18:11	120-82-1	
1,2,4-Trimethylbenzene	**367**	ug/L	2.5	1.2	2.5		07/21/17 18:11	95-63-6	
1,2-Dibromo-3-chloropropane	**<5.4**	ug/L	12.5	5.4	2.5		07/21/17 18:11	96-12-8	
1,2-Dibromoethane (EDB)	**<0.44**	ug/L	2.5	0.44	2.5		07/21/17 18:11	106-93-4	
1,2-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	95-50-1	
1,2-Dichloroethane	**<0.42**	ug/L	2.5	0.42	2.5		07/21/17 18:11	107-06-2	
1,2-Dichloropropane	**<0.58**	ug/L	2.5	0.58	2.5		07/21/17 18:11	78-87-5	
1,3,5-Trimethylbenzene	**37.6**	ug/L	2.5	1.2	2.5		07/21/17 18:11	108-67-8	
1,3-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	541-73-1	
1,3-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	142-28-9	
1,4-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	106-46-7	
2,2-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	594-20-7	
2-Chlorotoluene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	95-49-8	
4-Chlorotoluene	**<0.53**	ug/L	2.5	0.53	2.5		07/21/17 18:11	106-43-4	
Benzene	**1.3J**	ug/L	2.5	1.2	2.5		07/21/17 18:11	71-43-2	
Bromobenzene	**<0.58**	ug/L	2.5	0.58	2.5		07/21/17 18:11	108-86-1	
Bromochloromethane	**<0.85**	ug/L	2.5	0.85	2.5		07/21/17 18:11	74-97-5	
Bromodichloromethane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	75-27-4	
Bromoform	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	75-25-2	
Bromomethane	**<6.1**	ug/L	12.5	6.1	2.5		07/21/17 18:11	74-83-9	L1
Carbon tetrachloride	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	56-23-5	
Chlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	108-90-7	
Chloroethane	**<0.94**	ug/L	2.5	0.94	2.5		07/21/17 18:11	75-00-3	
Chloroform	**<6.2**	ug/L	12.5	6.2	2.5		07/21/17 18:11	67-66-3	
Chloromethane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	74-87-3	
Dibromochloromethane	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	124-48-1	
Dibromomethane	**<1.1**	ug/L	2.5	1.1	2.5		07/21/17 18:11	74-95-3	
Dichlorodifluoromethane	**<0.56**	ug/L	2.5	0.56	2.5		07/21/17 18:11	75-71-8	
Diisopropyl ether	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	108-20-3	
Ethylbenzene	**148**	ug/L	2.5	1.2	2.5		07/21/17 18:11	100-41-4	
Hexachloro-1,3-butadiene	**<5.3**	ug/L	12.5	5.3	2.5		07/21/17 18:11	87-68-3	
Isopropylbenzene (Cumene)	**44.0**	ug/L	2.5	0.36	2.5		07/21/17 18:11	98-82-8	
Methyl-tert-butyl ether	**<0.44**	ug/L	2.5	0.44	2.5		07/21/17 18:11	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	2.5	0.58	2.5		07/21/17 18:11	75-09-2	
Naphthalene	**32.9**	ug/L	12.5	6.2	2.5		07/21/17 18:11	91-20-3	
Styrene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	100-42-5	
Tetrachloroethene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Sample: MW-9 **Lab ID: 40153381009** Collected: 07/11/17 12:20 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	108-88-3	
Trichloroethene	**22.6**	ug/L	2.5	0.83	2.5		07/21/17 18:11	79-01-6	
Trichlorofluoromethane	**<0.46**	ug/L	2.5	0.46	2.5		07/21/17 18:11	75-69-4	
Vinyl chloride	**13.6**	ug/L	2.5	0.44	2.5		07/21/17 18:11	75-01-4	
cis-1,2-Dichloroethene	**45.7**	ug/L	2.5	0.64	2.5		07/21/17 18:11	156-59-2	
cis-1,3-Dichloropropene	**<1.2**	ug/L	2.5	1.2	2.5		07/21/17 18:11	10061-01-5	
m&p-Xylene	**382**	ug/L	5.0	2.5	2.5		07/21/17 18:11	179601-23-1	
n-Butylbenzene	**28.4**	ug/L	2.5	1.2	2.5		07/21/17 18:11	104-51-8	
n-Propylbenzene	**80.5**	ug/L	2.5	1.2	2.5		07/21/17 18:11	103-65-1	
o-Xylene	**14.3**	ug/L	2.5	1.2	2.5		07/21/17 18:11	95-47-6	
p-Isopropyltoluene	**23.7**	ug/L	2.5	1.2	2.5		07/21/17 18:11	99-87-6	
sec-Butylbenzene	**28.5**	ug/L	12.5	5.5	2.5		07/21/17 18:11	135-98-8	
tert-Butylbenzene	**7.6**	ug/L	2.5	0.45	2.5		07/21/17 18:11	98-06-6	
trans-1,2-Dichloroethene	**1.7J**	ug/L	2.5	0.64	2.5		07/21/17 18:11	156-60-5	
trans-1,3-Dichloropropene	**<0.57**	ug/L	2.5	0.57	2.5		07/21/17 18:11	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	61-130		2.5		07/21/17 18:11	460-00-4	
Dibromofluoromethane (S)	102	%	67-130		2.5		07/21/17 18:11	1868-53-7	
Toluene-d8 (S)	100	%	70-130		2.5		07/21/17 18:11	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

QC Batch: 261855 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40153381001, 40153381002, 40153381003, 40153381004, 40153381005, 40153381006, 40153381007, 40153381008

METHOD BLANK: 1541696 Matrix: Water
Associated Lab Samples: 40153381001, 40153381002, 40153381003, 40153381004, 40153381005, 40153381006, 40153381007, 40153381008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	07/20/17 13:14	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	07/20/17 13:14	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	07/20/17 13:14	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	07/20/17 13:14	
1,1-Dichloroethane	ug/L	<0.24	1.0	07/20/17 13:14	
1,1-Dichloroethene	ug/L	<0.41	1.0	07/20/17 13:14	
1,1-Dichloropropene	ug/L	<0.44	1.0	07/20/17 13:14	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	07/20/17 13:14	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	07/20/17 13:14	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	07/20/17 13:14	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	07/20/17 13:14	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	07/20/17 13:14	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	07/20/17 13:14	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	07/20/17 13:14	
1,2-Dichloroethane	ug/L	<0.17	1.0	07/20/17 13:14	
1,2-Dichloropropane	ug/L	<0.23	1.0	07/20/17 13:14	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	07/20/17 13:14	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	07/20/17 13:14	
1,3-Dichloropropane	ug/L	<0.50	1.0	07/20/17 13:14	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	07/20/17 13:14	
2,2-Dichloropropane	ug/L	<0.48	1.0	07/20/17 13:14	
2-Chlorotoluene	ug/L	<0.50	1.0	07/20/17 13:14	
4-Chlorotoluene	ug/L	<0.21	1.0	07/20/17 13:14	
Benzene	ug/L	<0.50	1.0	07/20/17 13:14	
Bromobenzene	ug/L	<0.23	1.0	07/20/17 13:14	
Bromochloromethane	ug/L	<0.34	1.0	07/20/17 13:14	
Bromodichloromethane	ug/L	<0.50	1.0	07/20/17 13:14	
Bromoform	ug/L	<0.50	1.0	07/20/17 13:14	
Bromomethane	ug/L	<2.4	5.0	07/20/17 13:14	
Carbon tetrachloride	ug/L	<0.50	1.0	07/20/17 13:14	
Chlorobenzene	ug/L	<0.50	1.0	07/20/17 13:14	
Chloroethane	ug/L	<0.37	1.0	07/20/17 13:14	
Chloroform	ug/L	<2.5	5.0	07/20/17 13:14	
Chloromethane	ug/L	<0.50	1.0	07/20/17 13:14	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	07/20/17 13:14	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	07/20/17 13:14	
Dibromochloromethane	ug/L	<0.50	1.0	07/20/17 13:14	
Dibromomethane	ug/L	<0.43	1.0	07/20/17 13:14	
Dichlorodifluoromethane	ug/L	<0.22	1.0	07/20/17 13:14	
Diisopropyl ether	ug/L	<0.50	1.0	07/20/17 13:14	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

METHOD BLANK: 1541696 Matrix: Water
Associated Lab Samples: 40153381001, 40153381002, 40153381003, 40153381004, 40153381005, 40153381006, 40153381007, 40153381008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.50	1.0	07/20/17 13:14	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	07/20/17 13:14	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	07/20/17 13:14	
m&p-Xylene	ug/L	<1.0	2.0	07/20/17 13:14	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	07/20/17 13:14	
Methylene Chloride	ug/L	<0.23	1.0	07/20/17 13:14	
n-Butylbenzene	ug/L	<0.50	1.0	07/20/17 13:14	
n-Propylbenzene	ug/L	<0.50	1.0	07/20/17 13:14	
Naphthalene	ug/L	<2.5	5.0	07/20/17 13:14	
o-Xylene	ug/L	<0.50	1.0	07/20/17 13:14	
p-Isopropyltoluene	ug/L	<0.50	1.0	07/20/17 13:14	
sec-Butylbenzene	ug/L	<2.2	5.0	07/20/17 13:14	
Styrene	ug/L	<0.50	1.0	07/20/17 13:14	
tert-Butylbenzene	ug/L	<0.18	1.0	07/20/17 13:14	
Tetrachloroethene	ug/L	<0.50	1.0	07/20/17 13:14	
Toluene	ug/L	<0.50	1.0	07/20/17 13:14	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	07/20/17 13:14	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	07/20/17 13:14	
Trichloroethene	ug/L	<0.33	1.0	07/20/17 13:14	
Trichlorofluoromethane	ug/L	<0.18	1.0	07/20/17 13:14	
Vinyl chloride	ug/L	<0.18	1.0	07/20/17 13:14	
4-Bromofluorobenzene (S)	%	94	61-130	07/20/17 13:14	
Dibromofluoromethane (S)	%	102	67-130	07/20/17 13:14	
Toluene-d8 (S)	%	98	70-130	07/20/17 13:14	

LABORATORY CONTROL SAMPLE: 1541697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	57.3	115	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	52.6	105	70-130	
1,1,2-Trichloroethane	ug/L	50	55.8	112	70-130	
1,1-Dichloroethane	ug/L	50	57.1	114	71-132	
1,1-Dichloroethene	ug/L	50	57.1	114	75-130	
1,2,4-Trichlorobenzene	ug/L	50	43.8	88	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.7	101	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	55.0	110	70-130	
1,2-Dichlorobenzene	ug/L	50	51.5	103	70-130	
1,2-Dichloroethane	ug/L	50	53.2	106	70-131	
1,2-Dichloropropane	ug/L	50	52.5	105	80-120	
1,3-Dichlorobenzene	ug/L	50	51.1	102	70-130	
1,4-Dichlorobenzene	ug/L	50	54.1	108	70-130	
Benzene	ug/L	50	53.9	108	73-145	
Bromodichloromethane	ug/L	50	55.7	111	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

LABORATORY CONTROL SAMPLE: 1541697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	50	51.7	103	67-130	
Bromomethane	ug/L	50	40.2	80	26-128	
Carbon tetrachloride	ug/L	50	58.8	118	70-133	
Chlorobenzene	ug/L	50	55.6	111	70-130	
Chloroethane	ug/L	50	53.8	108	58-120	
Chloroform	ug/L	50	54.7	109	80-121	
Chloromethane	ug/L	50	34.3	69	40-127	
cis-1,2-Dichloroethene	ug/L	50	56.4	113	70-130	
cis-1,3-Dichloropropene	ug/L	50	55.2	110	70-130	
Dibromochloromethane	ug/L	50	57.1	114	70-130	
Dichlorodifluoromethane	ug/L	50	25.9	52	20-135	
Ethylbenzene	ug/L	50	57.0	114	87-129	
Isopropylbenzene (Cumene)	ug/L	50	54.6	109	70-130	
m&p-Xylene	ug/L	100	114	114	70-130	
Methyl-tert-butyl ether	ug/L	50	58.5	117	66-143	
Methylene Chloride	ug/L	50	55.7	111	70-130	
o-Xylene	ug/L	50	56.6	113	70-130	
Styrene	ug/L	50	57.5	115	70-130	
Tetrachloroethene	ug/L	50	56.9	114	70-130	
Toluene	ug/L	50	56.1	112	82-130	
trans-1,2-Dichloroethene	ug/L	50	57.0	114	75-132	
trans-1,3-Dichloropropene	ug/L	50	53.1	106	70-130	
Trichloroethene	ug/L	50	56.0	112	70-130	
Trichlorofluoromethane	ug/L	50	56.6	113	76-133	
Vinyl chloride	ug/L	50	45.1	90	57-136	
4-Bromofluorobenzene (S)	%			104	61-130	
Dibromofluoromethane (S)	%			102	67-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1543367 1543368

Parameter	Units	40153381001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.50	50	50	57.3	55.8	115	112	70-134	3	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	51.7	50.9	103	102	70-130	2	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	53.7	51.9	107	104	70-130	3	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	55.5	53.8	111	108	71-133	3	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	55.4	52.2	111	104	75-136	6	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	45.5	44.7	90	89	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	51.6	49.6	103	99	63-123	4	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	54.0	53.6	108	107	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	50.8	50.7	102	101	70-130	0	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	52.6	51.9	105	104	70-131	1	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	49.7	50.6	99	101	80-120	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1543367 1543368

Parameter	Units	40153381001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,3-Dichlorobenzene	ug/L	<0.50	50	50	49.9	50.5	100	101	70-130	1	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	52.3	50.9	105	102	70-130	3	20	
Benzene	ug/L	<0.50	50	50	52.5	52.1	105	104	73-145	1	20	
Bromodichloromethane	ug/L	<0.50	50	50	54.3	54.5	109	109	70-130	0	20	
Bromoform	ug/L	<0.50	50	50	48.9	49.5	98	99	67-130	1	20	
Bromomethane	ug/L	<2.4	50	50	41.7	43.7	83	87	26-129	5	20	
Carbon tetrachloride	ug/L	<0.50	50	50	56.4	55.7	113	111	70-134	1	20	
Chlorobenzene	ug/L	<0.50	50	50	52.6	52.6	105	105	70-130	0	20	
Chloroethane	ug/L	<0.37	50	50	51.7	49.3	103	99	58-120	5	20	
Chloroform	ug/L	<2.5	50	50	54.0	53.6	108	107	80-121	1	20	
Chloromethane	ug/L	<0.50	50	50	33.0	31.1	66	62	40-128	6	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	55.8	53.5	112	107	70-130	4	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	51.8	53.6	104	107	70-130	3	20	
Dibromochloromethane	ug/L	<0.50	50	50	54.5	54.9	109	110	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	25.7	24.3	51	49	20-146	6	20	
Ethylbenzene	ug/L	<0.50	50	50	53.1	53.8	106	108	87-129	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	53.1	52.6	106	105	70-130	1	20	
m&p-Xylene	ug/L	<1.0	100	100	107	106	107	106	70-130	1	20	
Methyl-tert-butyl ether	ug/L	1.9	50	50	60.6	56.8	117	110	66-143	6	20	
Methylene Chloride	ug/L	<0.23	50	50	52.7	50.0	105	100	70-130	5	20	
o-Xylene	ug/L	<0.50	50	50	53.4	55.2	107	110	70-130	3	20	
Styrene	ug/L	<0.50	50	50	54.6	55.8	109	112	70-130	2	20	
Tetrachloroethene	ug/L	<0.50	50	50	52.2	53.1	104	106	70-130	2	20	
Toluene	ug/L	<0.50	50	50	53.5	53.5	107	107	82-131	0	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	55.9	53.6	112	107	75-135	4	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	51.2	51.1	102	102	70-130	0	20	
Trichloroethene	ug/L	<0.33	50	50	53.8	53.6	108	107	70-130	0	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	54.3	51.2	109	102	76-150	6	20	
Vinyl chloride	ug/L	<0.18	50	50	44.4	42.1	89	84	56-143	6	20	
4-Bromofluorobenzene (S)	%						104	103	61-130			
Dibromofluoromethane (S)	%						105	105	67-130			
Toluene-d8 (S)	%						99	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

QC Batch: 262145 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40153381009

METHOD BLANK: 1543377 Matrix: Water
Associated Lab Samples: 40153381009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	07/21/17 11:32	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	07/21/17 11:32	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	07/21/17 11:32	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	07/21/17 11:32	
1,1-Dichloroethane	ug/L	<0.24	1.0	07/21/17 11:32	
1,1-Dichloroethene	ug/L	<0.41	1.0	07/21/17 11:32	
1,1-Dichloropropene	ug/L	<0.44	1.0	07/21/17 11:32	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	07/21/17 11:32	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	07/21/17 11:32	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	07/21/17 11:32	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	07/21/17 11:32	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	07/21/17 11:32	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	07/21/17 11:32	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	07/21/17 11:32	
1,2-Dichloroethane	ug/L	<0.17	1.0	07/21/17 11:32	
1,2-Dichloropropane	ug/L	<0.23	1.0	07/21/17 11:32	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	07/21/17 11:32	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	07/21/17 11:32	
1,3-Dichloropropane	ug/L	<0.50	1.0	07/21/17 11:32	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	07/21/17 11:32	
2,2-Dichloropropane	ug/L	<0.48	1.0	07/21/17 11:32	
2-Chlorotoluene	ug/L	<0.50	1.0	07/21/17 11:32	
4-Chlorotoluene	ug/L	<0.21	1.0	07/21/17 11:32	
Benzene	ug/L	<0.50	1.0	07/21/17 11:32	
Bromobenzene	ug/L	<0.23	1.0	07/21/17 11:32	
Bromochloromethane	ug/L	<0.34	1.0	07/21/17 11:32	
Bromodichloromethane	ug/L	<0.50	1.0	07/21/17 11:32	
Bromoform	ug/L	<0.50	1.0	07/21/17 11:32	
Bromomethane	ug/L	<2.4	5.0	07/21/17 11:32	
Carbon tetrachloride	ug/L	<0.50	1.0	07/21/17 11:32	
Chlorobenzene	ug/L	<0.50	1.0	07/21/17 11:32	
Chloroethane	ug/L	<0.37	1.0	07/21/17 11:32	
Chloroform	ug/L	<2.5	5.0	07/21/17 11:32	
Chloromethane	ug/L	<0.50	1.0	07/21/17 11:32	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	07/21/17 11:32	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	07/21/17 11:32	
Dibromochloromethane	ug/L	<0.50	1.0	07/21/17 11:32	
Dibromomethane	ug/L	<0.43	1.0	07/21/17 11:32	
Dichlorodifluoromethane	ug/L	<0.22	1.0	07/21/17 11:32	
Diisopropyl ether	ug/L	<0.50	1.0	07/21/17 11:32	
Ethylbenzene	ug/L	<0.50	1.0	07/21/17 11:32	

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QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

METHOD BLANK: 1543377 Matrix: Water
Associated Lab Samples: 40153381009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	07/21/17 11:32	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	07/21/17 11:32	
m&p-Xylene	ug/L	<1.0	2.0	07/21/17 11:32	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	07/21/17 11:32	
Methylene Chloride	ug/L	<0.23	1.0	07/21/17 11:32	
n-Butylbenzene	ug/L	<0.50	1.0	07/21/17 11:32	
n-Propylbenzene	ug/L	<0.50	1.0	07/21/17 11:32	
Naphthalene	ug/L	<2.5	5.0	07/21/17 11:32	
o-Xylene	ug/L	<0.50	1.0	07/21/17 11:32	
p-Isopropyltoluene	ug/L	<0.50	1.0	07/21/17 11:32	
sec-Butylbenzene	ug/L	<2.2	5.0	07/21/17 11:32	
Styrene	ug/L	<0.50	1.0	07/21/17 11:32	
tert-Butylbenzene	ug/L	<0.18	1.0	07/21/17 11:32	
Tetrachloroethene	ug/L	<0.50	1.0	07/21/17 11:32	
Toluene	ug/L	<0.50	1.0	07/21/17 11:32	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	07/21/17 11:32	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	07/21/17 11:32	
Trichloroethene	ug/L	<0.33	1.0	07/21/17 11:32	
Trichlorofluoromethane	ug/L	<0.18	1.0	07/21/17 11:32	
Vinyl chloride	ug/L	<0.18	1.0	07/21/17 11:32	
4-Bromofluorobenzene (S)	%	88	61-130	07/21/17 11:32	
Dibromofluoromethane (S)	%	104	67-130	07/21/17 11:32	
Toluene-d8 (S)	%	98	70-130	07/21/17 11:32	

LABORATORY CONTROL SAMPLE: 1543378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.6	103	70-130	
1,1,2-Trichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethane	ug/L	50	49.3	99	71-132	
1,1-Dichloroethene	ug/L	50	46.6	93	75-130	
1,2,4-Trichlorobenzene	ug/L	50	38.1	76	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.9	96	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	55.2	110	70-130	
1,2-Dichlorobenzene	ug/L	50	47.5	95	70-130	
1,2-Dichloroethane	ug/L	50	47.2	94	70-131	
1,2-Dichloropropane	ug/L	50	53.1	106	80-120	
1,3-Dichlorobenzene	ug/L	50	45.9	92	70-130	
1,4-Dichlorobenzene	ug/L	50	47.6	95	70-130	
Benzene	ug/L	50	45.6	91	73-145	
Bromodichloromethane	ug/L	50	48.8	98	70-130	
Bromoform	ug/L	50	50.7	101	67-130	
Bromomethane	ug/L	50	72.2	144	26-128	L1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

LABORATORY CONTROL SAMPLE: 1543378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	49.1	98	70-133	
Chlorobenzene	ug/L	50	50.6	101	70-130	
Chloroethane	ug/L	50	46.2	92	58-120	
Chloroform	ug/L	50	46.1	92	80-121	
Chloromethane	ug/L	50	45.6	91	40-127	
cis-1,2-Dichloroethene	ug/L	50	43.4	87	70-130	
cis-1,3-Dichloropropene	ug/L	50	48.3	97	70-130	
Dibromochloromethane	ug/L	50	50.2	100	70-130	
Dichlorodifluoromethane	ug/L	50	20.9	42	20-135	
Ethylbenzene	ug/L	50	50.5	101	87-129	
Isopropylbenzene (Cumene)	ug/L	50	49.8	100	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methyl-tert-butyl ether	ug/L	50	48.4	97	66-143	
Methylene Chloride	ug/L	50	47.2	94	70-130	
o-Xylene	ug/L	50	50.5	101	70-130	
Styrene	ug/L	50	51.8	104	70-130	
Tetrachloroethene	ug/L	50	45.3	91	70-130	
Toluene	ug/L	50	49.4	99	82-130	
trans-1,2-Dichloroethene	ug/L	50	49.9	100	75-132	
trans-1,3-Dichloropropene	ug/L	50	47.5	95	70-130	
Trichloroethene	ug/L	50	52.0	104	70-130	
Trichlorofluoromethane	ug/L	50	48.7	97	76-133	
Vinyl chloride	ug/L	50	40.6	81	57-136	
4-Bromofluorobenzene (S)	%			100	61-130	
Dibromofluoromethane (S)	%			99	67-130	
Toluene-d8 (S)	%			102	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 17-0301 BADGER METAL
Pace Project No.: 40153381

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40153381001	**MW-12**	EPA 8260	261855		
40153381002	**MW-11**	EPA 8260	261855		
40153381003	**MW-103**	EPA 8260	261855		
40153381004	**MW-102**	EPA 8260	261855		
40153381005	**PZ-2**	EPA 8260	261855		
40153381006	**MW-7**	EPA 8260	261855		
40153381007	**PZ-1**	EPA 8260	261855		
40153381008	**MW-10**	EPA 8260	261855		
40153381009	**MW-9**	EPA 8260	262145		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

401533B1

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	ReadyEarth Consulting
Branch/Location:	
Project Contact:	Jason Bartley
Phone:	262-522-8520
Project Number:	17-0301
Project Name:	Badger Motel
Project State:	WI
Sampled By (Print):	Jason E. Bartley
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	jbartley@readyearth.net
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: VOC	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	MW-12	7-11-17	1100	GW	N		X		3-40mL VB	
002	MW-11		1125				X			
003	MW-103		1145				X			
004	MW-102		1200				X			
005	PZ-2		1235				X			
006	MW-7		1250				X			
007	PZ-1		1310				X			
008	MW-10		1330				X			
009	MW-9		1220				X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	7-17-17 1916	Mary Fannin	7/17/17 1916
Mary Fannin	7/17/17 1445		
CS Logistics	7/18/17 0935	Kimberly Retzke Pace	7/18/17 0935

PACE Project No. 401533B1
Receipt Temp = R01 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project #: WO#: 40153381

40153381

Client Name: Rendy Earth

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: R01 /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 7-18-17
Initials: KR

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No	☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No	☑N/A	
exceptions: (VOA) coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☑Yes	☐No		Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	14.
Trip Blank Present:	☐Yes	☑No	☐N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:** 7/18/17

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October 26, 2017

Jason Bartley
ReadyEarth Consulting, Inc.
P.O. Box 365
Pewaukee, WI 53072

RE: Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Dear Jason Bartley:
Enclosed are the analytical results for sample(s) received by the laboratory on October 21, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures

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CERTIFICATIONS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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SAMPLE SUMMARY

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40159191001	PZ-2	Water	10/17/17 15:15	10/21/17 08:30
40159191002	MW-9	Water	10/17/17 13:45	10/21/17 08:30
40159191003	MW-7	Water	10/17/17 14:00	10/21/17 08:30
40159191004	MW-102	Water	10/17/17 14:15	10/21/17 08:30
40159191005	MW-10	Water	10/17/17 14:45	10/21/17 08:30
40159191006	PZ-1	Water	10/17/17 13:30	10/21/17 08:30

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SAMPLE ANALYTE COUNT

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40159191001	**PZ-2**	EPA 8260	LAP	64
40159191002	**MW-9**	EPA 8260	LAP	64
40159191003	**MW-7**	EPA 8260	LAP	64
40159191004	**MW-102**	EPA 8260	LAP	64
40159191005	**MW-10**	EPA 8260	LAP	64
40159191006	**PZ-1**	EPA 8260	LAP	64

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: PZ-2 **Lab ID: 40159191001** Collected: 10/17/17 15:15 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:11	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		10/25/17 11:11	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/25/17 11:11	79-00-5	
1,1-Dichloroethane	**0.67J**	ug/L	1.0	0.24	1		10/25/17 11:11	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/25/17 11:11	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		10/25/17 11:11	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 11:11	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:11	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:11	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:11	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/25/17 11:11	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:11	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		10/25/17 11:11	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		10/25/17 11:11	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:11	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		10/25/17 11:11	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/25/17 11:11	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/25/17 11:11	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/25/17 11:11	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/25/17 11:11	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/25/17 11:11	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 11:11	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		10/25/17 11:11	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/25/17 11:11	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:11	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/25/17 11:11	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: PZ-2 **Lab ID: 40159191001** Collected: 10/17/17 15:15 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	108-88-3	
Trichloroethene	**5.6**	ug/L	1.0	0.33	1		10/25/17 11:11	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:11	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:11	75-01-4	
cis-1,2-Dichloroethene	**16.4**	ug/L	1.0	0.26	1		10/25/17 11:11	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		10/25/17 11:11	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:11	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:11	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:11	98-06-6	
trans-1,2-Dichloroethene	**0.56J**	ug/L	1.0	0.26	1		10/25/17 11:11	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:11	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		10/25/17 11:11	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		10/25/17 11:11	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		10/25/17 11:11	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-9 **Lab ID: 40159191002** Collected: 10/17/17 13:45 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.45**	ug/L	2.5	0.45	2.5		10/25/17 13:27	630-20-6	
1,1,1-Trichloroethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.62**	ug/L	2.5	0.62	2.5		10/25/17 13:27	79-34-5	
1,1,2-Trichloroethane	**<0.49**	ug/L	2.5	0.49	2.5		10/25/17 13:27	79-00-5	
1,1-Dichloroethane	**4.0**	ug/L	2.5	0.60	2.5		10/25/17 13:27	75-34-3	
1,1-Dichloroethene	**1.5J**	ug/L	2.5	1.0	2.5		10/25/17 13:27	75-35-4	
1,1-Dichloropropene	**<1.1**	ug/L	2.5	1.1	2.5		10/25/17 13:27	563-58-6	
1,2,3-Trichlorobenzene	**<5.3**	ug/L	12.5	5.3	2.5		10/25/17 13:27	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	96-18-4	
1,2,4-Trichlorobenzene	**<5.5**	ug/L	12.5	5.5	2.5		10/25/17 13:27	120-82-1	
1,2,4-Trimethylbenzene	**446**	ug/L	2.5	1.2	2.5		10/25/17 13:27	95-63-6	
1,2-Dibromo-3-chloropropane	**<5.4**	ug/L	12.5	5.4	2.5		10/25/17 13:27	96-12-8	
1,2-Dibromoethane (EDB)	**<0.44**	ug/L	2.5	0.44	2.5		10/25/17 13:27	106-93-4	
1,2-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	95-50-1	
1,2-Dichloroethane	**<0.42**	ug/L	2.5	0.42	2.5		10/25/17 13:27	107-06-2	
1,2-Dichloropropane	**<0.58**	ug/L	2.5	0.58	2.5		10/25/17 13:27	78-87-5	
1,3,5-Trimethylbenzene	**55.0**	ug/L	2.5	1.2	2.5		10/25/17 13:27	108-67-8	
1,3-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	541-73-1	
1,3-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	142-28-9	
1,4-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	106-46-7	
2,2-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	594-20-7	
2-Chlorotoluene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	95-49-8	
4-Chlorotoluene	**<0.53**	ug/L	2.5	0.53	2.5		10/25/17 13:27	106-43-4	
Benzene	**3.1**	ug/L	2.5	1.2	2.5		10/25/17 13:27	71-43-2	
Bromobenzene	**<0.58**	ug/L	2.5	0.58	2.5		10/25/17 13:27	108-86-1	
Bromochloromethane	**<0.85**	ug/L	2.5	0.85	2.5		10/25/17 13:27	74-97-5	
Bromodichloromethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	75-27-4	
Bromoform	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	75-25-2	
Bromomethane	**<6.1**	ug/L	12.5	6.1	2.5		10/25/17 13:27	74-83-9	
Carbon tetrachloride	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	56-23-5	
Chlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	108-90-7	
Chloroethane	**<0.94**	ug/L	2.5	0.94	2.5		10/25/17 13:27	75-00-3	
Chloroform	**<6.2**	ug/L	12.5	6.2	2.5		10/25/17 13:27	67-66-3	
Chloromethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	74-87-3	
Dibromochloromethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	124-48-1	
Dibromomethane	**<1.1**	ug/L	2.5	1.1	2.5		10/25/17 13:27	74-95-3	
Dichlorodifluoromethane	**<0.56**	ug/L	2.5	0.56	2.5		10/25/17 13:27	75-71-8	
Diisopropyl ether	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	108-20-3	
Ethylbenzene	**122**	ug/L	2.5	1.2	2.5		10/25/17 13:27	100-41-4	
Hexachloro-1,3-butadiene	**<5.3**	ug/L	12.5	5.3	2.5		10/25/17 13:27	87-68-3	
Isopropylbenzene (Cumene)	**54.6**	ug/L	2.5	0.36	2.5		10/25/17 13:27	98-82-8	
Methyl-tert-butyl ether	**<0.44**	ug/L	2.5	0.44	2.5		10/25/17 13:27	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	2.5	0.58	2.5		10/25/17 13:27	75-09-2	
Naphthalene	**51.5**	ug/L	12.5	6.2	2.5		10/25/17 13:27	91-20-3	
Styrene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	100-42-5	
Tetrachloroethene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-9 **Lab ID: 40159191002** Collected: 10/17/17 13:45 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	108-88-3	
Trichloroethene	**61.2**	ug/L	2.5	0.83	2.5		10/25/17 13:27	79-01-6	
Trichlorofluoromethane	**<0.46**	ug/L	2.5	0.46	2.5		10/25/17 13:27	75-69-4	
Vinyl chloride	**22.4**	ug/L	2.5	0.44	2.5		10/25/17 13:27	75-01-4	
cis-1,2-Dichloroethene	**86.1**	ug/L	2.5	0.64	2.5		10/25/17 13:27	156-59-2	
cis-1,3-Dichloropropene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	10061-01-5	
m&p-Xylene	**410**	ug/L	5.0	2.5	2.5		10/25/17 13:27	179601-23-1	
n-Butylbenzene	**50.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	104-51-8	
n-Propylbenzene	**98.4**	ug/L	2.5	1.2	2.5		10/25/17 13:27	103-65-1	
o-Xylene	**14.2**	ug/L	2.5	1.2	2.5		10/25/17 13:27	95-47-6	
p-Isopropyltoluene	**35.6**	ug/L	2.5	1.2	2.5		10/25/17 13:27	99-87-6	
sec-Butylbenzene	**45.7**	ug/L	12.5	5.5	2.5		10/25/17 13:27	135-98-8	
tert-Butylbenzene	**10.5**	ug/L	2.5	0.45	2.5		10/25/17 13:27	98-06-6	
trans-1,2-Dichloroethene	**4.1**	ug/L	2.5	0.64	2.5		10/25/17 13:27	156-60-5	
trans-1,3-Dichloropropene	**<0.57**	ug/L	2.5	0.57	2.5		10/25/17 13:27	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	61-130		2.5		10/25/17 13:27	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		2.5		10/25/17 13:27	1868-53-7	
Toluene-d8 (S)	89	%	70-130		2.5		10/25/17 13:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-7 **Lab ID: 40159191003** Collected: 10/17/17 14:00 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:34	630-20-6	
1,1,1-Trichloroethane	**20.4**	ug/L	1.0	0.50	1		10/25/17 11:34	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		10/25/17 11:34	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/25/17 11:34	79-00-5	
1,1-Dichloroethane	**1.4**	ug/L	1.0	0.24	1		10/25/17 11:34	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/25/17 11:34	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		10/25/17 11:34	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 11:34	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:34	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:34	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:34	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	95-50-1	
1,2-Dichloroethane	**0.72J**	ug/L	1.0	0.17	1		10/25/17 11:34	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:34	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		10/25/17 11:34	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		10/25/17 11:34	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:34	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		10/25/17 11:34	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/25/17 11:34	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/25/17 11:34	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/25/17 11:34	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/25/17 11:34	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/25/17 11:34	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 11:34	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		10/25/17 11:34	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/25/17 11:34	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:34	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/25/17 11:34	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	100-42-5	
Tetrachloroethene	**1.8**	ug/L	1.0	0.50	1		10/25/17 11:34	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-7 **Lab ID: 40159191003** Collected: 10/17/17 14:00 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	108-88-3	
Trichloroethene	**42.2**	ug/L	1.0	0.33	1		10/25/17 11:34	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:34	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:34	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/17 11:34	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		10/25/17 11:34	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:34	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:34	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:34	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/17 11:34	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:34	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	82	%	61-130		1		10/25/17 11:34	460-00-4	
Dibromofluoromethane (S)	101	%	67-130		1		10/25/17 11:34	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		10/25/17 11:34	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-102 **Lab ID: 40159191004** Collected: 10/17/17 14:15 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:56	630-20-6	
1,1,1-Trichloroethane	**9.8**	ug/L	1.0	0.50	1		10/25/17 11:56	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		10/25/17 11:56	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/25/17 11:56	79-00-5	
1,1-Dichloroethane	**2.1**	ug/L	1.0	0.24	1		10/25/17 11:56	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/25/17 11:56	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		10/25/17 11:56	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 11:56	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:56	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:56	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:56	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/25/17 11:56	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:56	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		10/25/17 11:56	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		10/25/17 11:56	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:56	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		10/25/17 11:56	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/25/17 11:56	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/25/17 11:56	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/25/17 11:56	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/25/17 11:56	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/25/17 11:56	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 11:56	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		10/25/17 11:56	98-82-8	
Methyl-tert-butyl ether	**0.20J**	ug/L	1.0	0.17	1		10/25/17 11:56	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:56	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/25/17 11:56	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-102 **Lab ID: 40159191004** Collected: 10/17/17 14:15 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	108-88-3	
Trichloroethene	**72.5**	ug/L	1.0	0.33	1		10/25/17 11:56	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:56	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:56	75-01-4	
cis-1,2-Dichloroethene	**9.1**	ug/L	1.0	0.26	1		10/25/17 11:56	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		10/25/17 11:56	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 11:56	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 11:56	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		10/25/17 11:56	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/17 11:56	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 11:56	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	61-130		1		10/25/17 11:56	460-00-4	
Dibromofluoromethane (S)	101	%	67-130		1		10/25/17 11:56	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		10/25/17 11:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-10 **Lab ID: 40159191005** Collected: 10/17/17 14:45 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.45**	ug/L	2.5	0.45	2.5		10/25/17 13:50	630-20-6	
1,1,1-Trichloroethane	**85.7**	ug/L	2.5	1.2	2.5		10/25/17 13:50	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.62**	ug/L	2.5	0.62	2.5		10/25/17 13:50	79-34-5	
1,1,2-Trichloroethane	**<0.49**	ug/L	2.5	0.49	2.5		10/25/17 13:50	79-00-5	
1,1-Dichloroethane	**1.4J**	ug/L	2.5	0.60	2.5		10/25/17 13:50	75-34-3	
1,1-Dichloroethene	**<1.0**	ug/L	2.5	1.0	2.5		10/25/17 13:50	75-35-4	
1,1-Dichloropropene	**<1.1**	ug/L	2.5	1.1	2.5		10/25/17 13:50	563-58-6	
1,2,3-Trichlorobenzene	**<5.3**	ug/L	12.5	5.3	2.5		10/25/17 13:50	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	96-18-4	
1,2,4-Trichlorobenzene	**<5.5**	ug/L	12.5	5.5	2.5		10/25/17 13:50	120-82-1	
1,2,4-Trimethylbenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	95-63-6	
1,2-Dibromo-3-chloropropane	**<5.4**	ug/L	12.5	5.4	2.5		10/25/17 13:50	96-12-8	
1,2-Dibromoethane (EDB)	**<0.44**	ug/L	2.5	0.44	2.5		10/25/17 13:50	106-93-4	
1,2-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	95-50-1	
1,2-Dichloroethane	**<0.42**	ug/L	2.5	0.42	2.5		10/25/17 13:50	107-06-2	
1,2-Dichloropropane	**<0.58**	ug/L	2.5	0.58	2.5		10/25/17 13:50	78-87-5	
1,3,5-Trimethylbenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	108-67-8	
1,3-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	541-73-1	
1,3-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	142-28-9	
1,4-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	106-46-7	
2,2-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	594-20-7	
2-Chlorotoluene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	95-49-8	
4-Chlorotoluene	**<0.53**	ug/L	2.5	0.53	2.5		10/25/17 13:50	106-43-4	
Benzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	71-43-2	
Bromobenzene	**<0.58**	ug/L	2.5	0.58	2.5		10/25/17 13:50	108-86-1	
Bromochloromethane	**<0.85**	ug/L	2.5	0.85	2.5		10/25/17 13:50	74-97-5	
Bromodichloromethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	75-27-4	
Bromoform	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	75-25-2	
Bromomethane	**<6.1**	ug/L	12.5	6.1	2.5		10/25/17 13:50	74-83-9	
Carbon tetrachloride	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	56-23-5	
Chlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	108-90-7	
Chloroethane	**<0.94**	ug/L	2.5	0.94	2.5		10/25/17 13:50	75-00-3	
Chloroform	**<6.2**	ug/L	12.5	6.2	2.5		10/25/17 13:50	67-66-3	
Chloromethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	74-87-3	
Dibromochloromethane	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	124-48-1	
Dibromomethane	**<1.1**	ug/L	2.5	1.1	2.5		10/25/17 13:50	74-95-3	
Dichlorodifluoromethane	**<0.56**	ug/L	2.5	0.56	2.5		10/25/17 13:50	75-71-8	
Diisopropyl ether	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	108-20-3	
Ethylbenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	100-41-4	
Hexachloro-1,3-butadiene	**<5.3**	ug/L	12.5	5.3	2.5		10/25/17 13:50	87-68-3	
Isopropylbenzene (Cumene)	**<0.36**	ug/L	2.5	0.36	2.5		10/25/17 13:50	98-82-8	
Methyl-tert-butyl ether	**<0.44**	ug/L	2.5	0.44	2.5		10/25/17 13:50	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	2.5	0.58	2.5		10/25/17 13:50	75-09-2	
Naphthalene	**<6.2**	ug/L	12.5	6.2	2.5		10/25/17 13:50	91-20-3	
Styrene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	100-42-5	
Tetrachloroethene	**92.0**	ug/L	2.5	1.2	2.5		10/25/17 13:50	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: MW-10 **Lab ID: 40159191005** Collected: 10/17/17 14:45 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	108-88-3	
Trichloroethene	**260**	ug/L	2.5	0.83	2.5		10/25/17 13:50	79-01-6	
Trichlorofluoromethane	**<0.46**	ug/L	2.5	0.46	2.5		10/25/17 13:50	75-69-4	
Vinyl chloride	**0.68J**	ug/L	2.5	0.44	2.5		10/25/17 13:50	75-01-4	
cis-1,2-Dichloroethene	**1.8J**	ug/L	2.5	0.64	2.5		10/25/17 13:50	156-59-2	
cis-1,3-Dichloropropene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	10061-01-5	
m&p-Xylene	**<2.5**	ug/L	5.0	2.5	2.5		10/25/17 13:50	179601-23-1	
n-Butylbenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	104-51-8	
n-Propylbenzene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	103-65-1	
o-Xylene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	95-47-6	
p-Isopropyltoluene	**<1.2**	ug/L	2.5	1.2	2.5		10/25/17 13:50	99-87-6	
sec-Butylbenzene	**<5.5**	ug/L	12.5	5.5	2.5		10/25/17 13:50	135-98-8	
tert-Butylbenzene	**<0.45**	ug/L	2.5	0.45	2.5		10/25/17 13:50	98-06-6	
trans-1,2-Dichloroethene	**<0.64**	ug/L	2.5	0.64	2.5		10/25/17 13:50	156-60-5	
trans-1,3-Dichloropropene	**<0.57**	ug/L	2.5	0.57	2.5		10/25/17 13:50	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	61-130		2.5		10/25/17 13:50	460-00-4	
Dibromofluoromethane (S)	99	%	67-130		2.5		10/25/17 13:50	1868-53-7	
Toluene-d8 (S)	97	%	70-130		2.5		10/25/17 13:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: PZ-1 **Lab ID: 40159191006** Collected: 10/17/17 13:30 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 12:41	630-20-6	
1,1,1-Trichloroethane	**121**	ug/L	1.0	0.50	1		10/25/17 12:41	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		10/25/17 12:41	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/25/17 12:41	79-00-5	
1,1-Dichloroethane	**44.2**	ug/L	1.0	0.24	1		10/25/17 12:41	75-34-3	
1,1-Dichloroethene	**36.2**	ug/L	1.0	0.41	1		10/25/17 12:41	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		10/25/17 12:41	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 12:41	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 12:41	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/25/17 12:41	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/25/17 12:41	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/25/17 12:41	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/25/17 12:41	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		10/25/17 12:41	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		10/25/17 12:41	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 12:41	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		10/25/17 12:41	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/25/17 12:41	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/25/17 12:41	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/25/17 12:41	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/25/17 12:41	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/25/17 12:41	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		10/25/17 12:41	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		10/25/17 12:41	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/25/17 12:41	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/25/17 12:41	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/25/17 12:41	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	100-42-5	
Tetrachloroethene	**1.3**	ug/L	1.0	0.50	1		10/25/17 12:41	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Sample: PZ-1 **Lab ID: 40159191006** Collected: 10/17/17 13:30 Received: 10/21/17 08:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	108-88-3	
Trichloroethene	**270**	ug/L	1.0	0.33	1		10/25/17 12:41	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/25/17 12:41	75-69-4	
Vinyl chloride	**5.4**	ug/L	1.0	0.18	1		10/25/17 12:41	75-01-4	
cis-1,2-Dichloroethene	**165**	ug/L	1.0	0.26	1		10/25/17 12:41	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		10/25/17 12:41	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		10/25/17 12:41	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		10/25/17 12:41	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		10/25/17 12:41	98-06-6	
trans-1,2-Dichloroethene	**5.0**	ug/L	1.0	0.26	1		10/25/17 12:41	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/25/17 12:41	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		10/25/17 12:41	460-00-4	
Dibromofluoromethane (S)	96	%	67-130		1		10/25/17 12:41	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		10/25/17 12:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

QC Batch: 271445 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40159191001, 40159191002, 40159191003, 40159191004, 40159191005, 40159191006

METHOD BLANK: 1596483 Matrix: Water
Associated Lab Samples: 40159191001, 40159191002, 40159191003, 40159191004, 40159191005, 40159191006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	10/24/17 17:07	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	10/24/17 17:07	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	10/24/17 17:07	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	10/24/17 17:07	
1,1-Dichloroethane	ug/L	<0.24	1.0	10/24/17 17:07	
1,1-Dichloroethene	ug/L	<0.41	1.0	10/24/17 17:07	
1,1-Dichloropropene	ug/L	<0.44	1.0	10/24/17 17:07	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	10/24/17 17:07	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	10/24/17 17:07	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	10/24/17 17:07	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	10/24/17 17:07	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	10/24/17 17:07	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	10/24/17 17:07	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	10/24/17 17:07	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/24/17 17:07	
1,2-Dichloropropane	ug/L	<0.23	1.0	10/24/17 17:07	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	10/24/17 17:07	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	10/24/17 17:07	
1,3-Dichloropropane	ug/L	<0.50	1.0	10/24/17 17:07	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	10/24/17 17:07	
2,2-Dichloropropane	ug/L	<0.48	1.0	10/24/17 17:07	
2-Chlorotoluene	ug/L	<0.50	1.0	10/24/17 17:07	
4-Chlorotoluene	ug/L	<0.21	1.0	10/24/17 17:07	
Benzene	ug/L	<0.50	1.0	10/24/17 17:07	
Bromobenzene	ug/L	<0.23	1.0	10/24/17 17:07	
Bromochloromethane	ug/L	<0.34	1.0	10/24/17 17:07	
Bromodichloromethane	ug/L	<0.50	1.0	10/24/17 17:07	
Bromoform	ug/L	<0.50	1.0	10/24/17 17:07	
Bromomethane	ug/L	<2.4	5.0	10/24/17 17:07	
Carbon tetrachloride	ug/L	<0.50	1.0	10/24/17 17:07	
Chlorobenzene	ug/L	<0.50	1.0	10/24/17 17:07	
Chloroethane	ug/L	<0.37	1.0	10/24/17 17:07	
Chloroform	ug/L	<2.5	5.0	10/24/17 17:07	
Chloromethane	ug/L	<0.50	1.0	10/24/17 17:07	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	10/24/17 17:07	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	10/24/17 17:07	
Dibromochloromethane	ug/L	<0.50	1.0	10/24/17 17:07	
Dibromomethane	ug/L	<0.43	1.0	10/24/17 17:07	
Dichlorodifluoromethane	ug/L	<0.22	1.0	10/24/17 17:07	
Diisopropyl ether	ug/L	<0.50	1.0	10/24/17 17:07	
Ethylbenzene	ug/L	<0.50	1.0	10/24/17 17:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

METHOD BLANK: 1596483 Matrix: Water
Associated Lab Samples: 40159191001, 40159191002, 40159191003, 40159191004, 40159191005, 40159191006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	10/24/17 17:07	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	10/24/17 17:07	
m&p-Xylene	ug/L	<1.0	2.0	10/24/17 17:07	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	10/24/17 17:07	
Methylene Chloride	ug/L	<0.23	1.0	10/24/17 17:07	
n-Butylbenzene	ug/L	<0.50	1.0	10/24/17 17:07	
n-Propylbenzene	ug/L	<0.50	1.0	10/24/17 17:07	
Naphthalene	ug/L	<2.5	5.0	10/24/17 17:07	
o-Xylene	ug/L	<0.50	1.0	10/24/17 17:07	
p-Isopropyltoluene	ug/L	<0.50	1.0	10/24/17 17:07	
sec-Butylbenzene	ug/L	<2.2	5.0	10/24/17 17:07	
Styrene	ug/L	<0.50	1.0	10/24/17 17:07	
tert-Butylbenzene	ug/L	<0.18	1.0	10/24/17 17:07	
Tetrachloroethene	ug/L	<0.50	1.0	10/24/17 17:07	
Toluene	ug/L	<0.50	1.0	10/24/17 17:07	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	10/24/17 17:07	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	10/24/17 17:07	
Trichloroethene	ug/L	<0.33	1.0	10/24/17 17:07	
Trichlorofluoromethane	ug/L	<0.18	1.0	10/24/17 17:07	
Vinyl chloride	ug/L	<0.18	1.0	10/24/17 17:07	
4-Bromofluorobenzene (S)	%	92	61-130	10/24/17 17:07	
Dibromofluoromethane (S)	%	94	67-130	10/24/17 17:07	
Toluene-d8 (S)	%	96	70-130	10/24/17 17:07	

LABORATORY CONTROL SAMPLE: 1596484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	49.6	56.7	114	70-130	
1,1,2,2-Tetrachloroethane	ug/L	49.6	40.7	82	70-130	
1,1,2-Trichloroethane	ug/L	49.6	45.8	92	70-130	
1,1-Dichloroethane	ug/L	49.6	49.3	99	71-132	
1,1-Dichloroethene	ug/L	49.6	48.5	98	75-130	
1,2,4-Trichlorobenzene	ug/L	49.6	44.6	90	70-130	
1,2-Dibromo-3-chloropropane	ug/L	49.6	38.9	78	63-123	
1,2-Dibromoethane (EDB)	ug/L	49.6	51.2	103	70-130	
1,2-Dichlorobenzene	ug/L	49.6	48.0	97	70-130	
1,2-Dichloroethane	ug/L	49.6	57.1	115	70-131	
1,2-Dichloropropane	ug/L	49.6	49.6	100	80-120	
1,3-Dichlorobenzene	ug/L	49.6	50.3	101	70-130	
1,4-Dichlorobenzene	ug/L	49.6	49.4	100	70-130	
Benzene	ug/L	49.6	48.6	98	73-145	
Bromodichloromethane	ug/L	49.6	59.3	120	70-130	
Bromoform	ug/L	49.6	49.0	99	67-130	
Bromomethane	ug/L	50	33.8	68	26-128	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

LABORATORY CONTROL SAMPLE: 1596484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	49.6	60.4	122	70-133	
Chlorobenzene	ug/L	49.6	52.9	107	70-130	
Chloroethane	ug/L	50	40.9	82	58-120	
Chloroform	ug/L	49.6	54.1	109	80-121	
Chloromethane	ug/L	50	26.1	52	40-127	
cis-1,2-Dichloroethene	ug/L	49.6	52.0	105	70-130	
cis-1,3-Dichloropropene	ug/L	49.6	47.0	95	70-130	
Dibromochloromethane	ug/L	49.6	53.9	109	70-130	
Dichlorodifluoromethane	ug/L	50	33.8	68	20-135	
Ethylbenzene	ug/L	49.6	54.6	110	87-129	
Isopropylbenzene (Cumene)	ug/L	49.6	56.4	114	70-130	
m&p-Xylene	ug/L	99.2	110	111	70-130	
Methyl-tert-butyl ether	ug/L	49.6	46.3	93	66-143	
Methylene Chloride	ug/L	49.6	45.2	91	70-130	
o-Xylene	ug/L	49.6	55.4	112	70-130	
Styrene	ug/L	49.6	51.7	104	70-130	
Tetrachloroethene	ug/L	49.6	55.2	111	70-130	
Toluene	ug/L	49.6	50.6	102	82-130	
trans-1,2-Dichloroethene	ug/L	49.6	50.6	102	75-132	
trans-1,3-Dichloropropene	ug/L	49.6	39.5	80	70-130	
Trichloroethene	ug/L	49.6	61.3	124	70-130	
Trichlorofluoromethane	ug/L	50	59.4	119	76-133	
Vinyl chloride	ug/L	50	35.9	72	57-136	
4-Bromofluorobenzene (S)	%			99	61-130	
Dibromofluoromethane (S)	%			104	67-130	
Toluene-d8 (S)	%			91	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1596980 1596981

Parameter	Units	40159111024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.50	49.6	49.6	55.7	53.1	112	107	70-134	5	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	49.6	49.6	41.7	42.1	84	85	70-130	1	20	
1,1,2-Trichloroethane	ug/L	<0.20	49.6	49.6	46.3	43.8	93	88	70-130	6	20	
1,1-Dichloroethane	ug/L	<0.24	49.6	49.6	48.2	45.9	97	93	71-133	5	20	
1,1-Dichloroethene	ug/L	<0.41	49.6	49.6	46.6	46.1	94	93	75-136	1	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	49.6	49.6	43.8	44.5	88	90	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	49.6	49.6	38.4	43.1	77	87	63-123	12	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	49.6	49.6	52.7	48.1	106	97	70-130	9	20	
1,2-Dichlorobenzene	ug/L	<0.50	49.6	49.6	49.4	49.6	100	100	70-130	0	20	
1,2-Dichloroethane	ug/L	<0.17	49.6	49.6	53.5	51.2	108	103	70-131	4	20	
1,2-Dichloropropane	ug/L	<0.23	49.6	49.6	49.3	45.4	99	91	80-120	8	20	
1,3-Dichlorobenzene	ug/L	<0.50	49.6	49.6	51.1	50.9	103	103	70-130	0	20	
1,4-Dichlorobenzene	ug/L	<0.50	49.6	49.6	49.5	50.1	100	101	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1596980 1596981

Parameter	Units	40159111024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	<0.50	49.6	49.6	47.0	44.0	95	89	73-145	7	20	
Bromodichloromethane	ug/L	<0.50	49.6	49.6	57.2	54.5	115	110	70-130	5	20	
Bromoform	ug/L	<0.50	49.6	49.6	48.0	45.5	97	92	67-130	5	20	
Bromomethane	ug/L	<2.4	50	50	35.5	36.8	71	74	26-129	4	20	
Carbon tetrachloride	ug/L	<0.50	49.6	49.6	58.3	56.8	117	114	70-134	3	20	
Chlorobenzene	ug/L	<0.50	49.6	49.6	52.2	51.0	105	103	70-130	2	20	
Chloroethane	ug/L	<0.37	50	50	40.5	40.5	81	81	58-120	0	20	
Chloroform	ug/L	<2.5	49.6	49.6	51.2	49.5	103	100	80-121	3	20	
Chloromethane	ug/L	<0.50	50	50	26.3	25.5	53	51	40-128	3	20	
cis-1,2-Dichloroethene	ug/L	0.33J	49.6	49.6	51.5	46.9	103	94	70-130	9	20	
cis-1,3-Dichloropropene	ug/L	<0.50	49.6	49.6	44.0	43.2	89	87	70-130	2	20	
Dibromochloromethane	ug/L	<0.50	49.6	49.6	51.9	49.2	105	99	70-130	5	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	33.4	31.8	67	64	20-146	5	20	
Ethylbenzene	ug/L	<0.50	49.6	49.6	53.0	50.8	107	102	87-129	4	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	49.6	49.6	54.8	53.6	111	108	70-130	2	20	
m&p-Xylene	ug/L	<1.0	99.2	99.2	105	103	106	104	70-130	3	20	
Methyl-tert-butyl ether	ug/L	<0.17	49.6	49.6	46.6	44.1	94	89	66-143	6	20	
Methylene Chloride	ug/L	<0.23	49.6	49.6	45.3	42.7	91	86	70-130	6	20	
o-Xylene	ug/L	<0.50	49.6	49.6	52.5	51.6	106	104	70-130	2	20	
Styrene	ug/L	<0.50	49.6	49.6	48.9	48.6	99	98	70-130	1	20	
Tetrachloroethene	ug/L	<0.50	49.6	49.6	54.0	49.9	109	101	70-130	8	20	
Toluene	ug/L	<0.50	49.6	49.6	48.5	47.2	98	95	82-131	3	20	
trans-1,2-Dichloroethene	ug/L	<0.26	49.6	49.6	47.3	46.8	95	94	75-135	1	20	
trans-1,3-Dichloropropene	ug/L	<0.23	49.6	49.6	41.0	39.6	83	80	70-130	3	20	
Trichloroethene	ug/L	1.9	49.6	49.6	59.8	55.0	117	107	70-130	8	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	56.0	53.1	112	106	76-150	5	20	
Vinyl chloride	ug/L	<0.18	50	50	37.1	35.4	74	71	56-143	5	20	
4-Bromofluorobenzene (S)	%						97	103	61-130			
Dibromofluoromethane (S)	%						99	98	67-130			
Toluene-d8 (S)	%						93	89	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 17-0301 BADGER METAL
Pace Project No.: 40159191

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40159191001	**PZ-2**	EPA 8260	271445		
40159191002	**MW-9**	EPA 8260	271445		
40159191003	**MW-7**	EPA 8260	271445		
40159191004	**MW-102**	EPA 8260	271445		
40159191005	**MW-10**	EPA 8260	271445		
40159191006	**PZ-1**	EPA 8260	271445		

(Please Print Clearly)	
Company Name:	Ready Earth Consulting
Branch/Location:	
Project Contact:	Jason Bartley
Phone:	(262) 522-3520
Project Number:	17-0301
Project Name:	Badger Metal
Project State:	WI
Sampled By (Print):	Jason E Bartley
Sampled By (Sign):	
PO #:	Regulatory Program:

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

4015991

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	jbartley@readyearth.net
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y/N	Pick Letter	VOC			
001	PZ-2	10+7	1515	GW	N	B	X		3-40mL VP	
002	MW-9		1345				X			
003	MW-7		1400				X			
004	MW-102		1415				X			
005	MW-10		1445				X			
006	PZ-1		1330				X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10-20-17/1015	Mary Fannin	10/20/17 1245
Mary Fannin	10/20/17 1345		
UPS Logistics	10/21/17 0730		

PACE Project No.: 4015991

Receipt Temp = 4.0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project #: **WO#: 40159191**

40159191

Client Name: Ready Earth Consultants

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RoT /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 10/27/17
Initials: SSM

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☐Yes	☒No	☐N/A	8. No ms/msd vol. SSM 10/27/17
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☐Yes	☒No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☒N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No	☒N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No	☒N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☒Yes	☐No		Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☒No	☐N/A	14.
Trip Blank Present:	☐Yes	☒No	☐N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:** 10/27/17

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 21, 2018

Jason Bartley
ReadyEarth Consulting, Inc.
P.O. Box 365
Pewaukee, WI 53072

RE: Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Dear Jason Bartley:
Enclosed are the analytical results for sample(s) received by the laboratory on May 16, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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(920)469-2436

SAMPLE SUMMARY

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40169191001	MW-12	Water	05/14/18 14:00	05/16/18 10:05
40169191002	PZ-2	Water	05/14/18 14:15	05/16/18 10:05
40169191003	MW-9	Water	05/14/18 14:30	05/16/18 10:05
40169191004	MW-7	Water	05/14/18 14:45	05/16/18 10:05
40169191005	MW-102	Water	05/14/18 15:00	05/16/18 10:05
40169191006	MW-10	Water	05/14/18 15:15	05/16/18 10:05
40169191007	PZ-1	Water	05/14/18 15:30	05/16/18 10:05

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SAMPLE ANALYTE COUNT

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40169191001	**MW-12**	EPA 8260	MDS	64
40169191002	**PZ-2**	EPA 8260	MDS	64
40169191003	**MW-9**	EPA 8260	MDS	64
40169191004	**MW-7**	EPA 8260	MDS	64
40169191005	**MW-102**	EPA 8260	MDS	64
40169191006	**MW-10**	EPA 8260	MDS	64
40169191007	**PZ-1**	EPA 8260	MDS	64

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-12 **Lab ID: 40169191001** Collected: 05/14/18 14:00 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:17	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		05/18/18 11:17	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		05/18/18 11:17	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/18/18 11:17	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		05/18/18 11:17	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		05/18/18 11:17	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 11:17	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 11:17	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		05/18/18 11:17	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:17	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		05/18/18 11:17	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:17	78-87-5	L1
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		05/18/18 11:17	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		05/18/18 11:17	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:17	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		05/18/18 11:17	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		05/18/18 11:17	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		05/18/18 11:17	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		05/18/18 11:17	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		05/18/18 11:17	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		05/18/18 11:17	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 11:17	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		05/18/18 11:17	98-82-8	
Methyl-tert-butyl ether	**1.8**	ug/L	1.0	0.17	1		05/18/18 11:17	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:17	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		05/18/18 11:17	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	127-18-4	

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-12 **Lab ID: 40169191001** Collected: 05/14/18 14:00 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		05/18/18 11:17	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:17	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:17	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/18/18 11:17	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		05/18/18 11:17	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:17	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 11:17	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:17	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/18/18 11:17	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:17	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	88	%	61-130		1		05/18/18 11:17	460-00-4	
Dibromofluoromethane (S)	117	%	67-130		1		05/18/18 11:17	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/18/18 11:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: PZ-2 **Lab ID: 40169191002** Collected: 05/14/18 14:15 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:38	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		05/18/18 11:38	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		05/18/18 11:38	79-00-5	
1,1-Dichloroethane	**0.76J**	ug/L	1.0	0.24	1		05/18/18 11:38	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		05/18/18 11:38	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		05/18/18 11:38	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 11:38	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 11:38	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		05/18/18 11:38	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:38	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		05/18/18 11:38	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:38	78-87-5	L1
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		05/18/18 11:38	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		05/18/18 11:38	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:38	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		05/18/18 11:38	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		05/18/18 11:38	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		05/18/18 11:38	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		05/18/18 11:38	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		05/18/18 11:38	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		05/18/18 11:38	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 11:38	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		05/18/18 11:38	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		05/18/18 11:38	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:38	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		05/18/18 11:38	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	127-18-4	

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: PZ-2 **Lab ID: 40169191002** Collected: 05/14/18 14:15 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	108-88-3	
Trichloroethene	**5.7**	ug/L	1.0	0.33	1		05/18/18 11:38	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:38	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:38	75-01-4	
cis-1,2-Dichloroethene	**18.3**	ug/L	1.0	0.26	1		05/18/18 11:38	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		05/18/18 11:38	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 11:38	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 11:38	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		05/18/18 11:38	98-06-6	
trans-1,2-Dichloroethene	**0.37J**	ug/L	1.0	0.26	1		05/18/18 11:38	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 11:38	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	88	%	61-130		1		05/18/18 11:38	460-00-4	
Dibromofluoromethane (S)	118	%	67-130		1		05/18/18 11:38	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/18/18 11:38	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-9 **Lab ID: 40169191003** Collected: 05/14/18 14:30 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.45**	ug/L	2.5	0.45	2.5		05/18/18 17:47	630-20-6	
1,1,1-Trichloroethane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.62**	ug/L	2.5	0.62	2.5		05/18/18 17:47	79-34-5	
1,1,2-Trichloroethane	**<0.49**	ug/L	2.5	0.49	2.5		05/18/18 17:47	79-00-5	
1,1-Dichloroethane	**1.2J**	ug/L	2.5	0.60	2.5		05/18/18 17:47	75-34-3	
1,1-Dichloroethene	**<1.0**	ug/L	2.5	1.0	2.5		05/18/18 17:47	75-35-4	
1,1-Dichloropropene	**<1.1**	ug/L	2.5	1.1	2.5		05/18/18 17:47	563-58-6	
1,2,3-Trichlorobenzene	**<5.3**	ug/L	12.5	5.3	2.5		05/18/18 17:47	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	96-18-4	
1,2,4-Trichlorobenzene	**<5.5**	ug/L	12.5	5.5	2.5		05/18/18 17:47	120-82-1	
1,2,4-Trimethylbenzene	**244**	ug/L	2.5	1.2	2.5		05/18/18 17:47	95-63-6	
1,2-Dibromo-3-chloropropane	**<5.4**	ug/L	12.5	5.4	2.5		05/18/18 17:47	96-12-8	
1,2-Dibromoethane (EDB)	**<0.44**	ug/L	2.5	0.44	2.5		05/18/18 17:47	106-93-4	
1,2-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	95-50-1	
1,2-Dichloroethane	**<0.42**	ug/L	2.5	0.42	2.5		05/18/18 17:47	107-06-2	
1,2-Dichloropropane	**<0.58**	ug/L	2.5	0.58	2.5		05/18/18 17:47	78-87-5	L1
1,3,5-Trimethylbenzene	**9.0**	ug/L	2.5	1.2	2.5		05/18/18 17:47	108-67-8	
1,3-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	541-73-1	
1,3-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	142-28-9	
1,4-Dichlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	106-46-7	
2,2-Dichloropropane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	594-20-7	
2-Chlorotoluene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	95-49-8	
4-Chlorotoluene	**<0.53**	ug/L	2.5	0.53	2.5		05/18/18 17:47	106-43-4	
Benzene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	71-43-2	
Bromobenzene	**<0.58**	ug/L	2.5	0.58	2.5		05/18/18 17:47	108-86-1	
Bromochloromethane	**<0.85**	ug/L	2.5	0.85	2.5		05/18/18 17:47	74-97-5	
Bromodichloromethane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	75-27-4	
Bromoform	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	75-25-2	
Bromomethane	**<6.1**	ug/L	12.5	6.1	2.5		05/18/18 17:47	74-83-9	
Carbon tetrachloride	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	56-23-5	
Chlorobenzene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	108-90-7	
Chloroethane	**<0.94**	ug/L	2.5	0.94	2.5		05/18/18 17:47	75-00-3	
Chloroform	**<6.2**	ug/L	12.5	6.2	2.5		05/18/18 17:47	67-66-3	
Chloromethane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	74-87-3	
Dibromochloromethane	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	124-48-1	
Dibromomethane	**<1.1**	ug/L	2.5	1.1	2.5		05/18/18 17:47	74-95-3	
Dichlorodifluoromethane	**<0.56**	ug/L	2.5	0.56	2.5		05/18/18 17:47	75-71-8	
Diisopropyl ether	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	108-20-3	
Ethylbenzene	**80.5**	ug/L	2.5	1.2	2.5		05/18/18 17:47	100-41-4	
Hexachloro-1,3-butadiene	**<5.3**	ug/L	12.5	5.3	2.5		05/18/18 17:47	87-68-3	
Isopropylbenzene (Cumene)	**40.1**	ug/L	2.5	0.36	2.5		05/18/18 17:47	98-82-8	
Methyl-tert-butyl ether	**<0.44**	ug/L	2.5	0.44	2.5		05/18/18 17:47	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	2.5	0.58	2.5		05/18/18 17:47	75-09-2	
Naphthalene	**20.9**	ug/L	12.5	6.2	2.5		05/18/18 17:47	91-20-3	
Styrene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	100-42-5	
Tetrachloroethene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-9 **Lab ID: 40169191003** Collected: 05/14/18 14:30 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	108-88-3	
Trichloroethene	**25.2**	ug/L	2.5	0.83	2.5		05/18/18 17:47	79-01-6	
Trichlorofluoromethane	**<0.46**	ug/L	2.5	0.46	2.5		05/18/18 17:47	75-69-4	
Vinyl chloride	**12.9**	ug/L	2.5	0.44	2.5		05/18/18 17:47	75-01-4	
cis-1,2-Dichloroethene	**38.4**	ug/L	2.5	0.64	2.5		05/18/18 17:47	156-59-2	
cis-1,3-Dichloropropene	**<1.2**	ug/L	2.5	1.2	2.5		05/18/18 17:47	10061-01-5	
m&p-Xylene	**272**	ug/L	5.0	2.5	2.5		05/18/18 17:47	179601-23-1	
n-Butylbenzene	**29.7**	ug/L	2.5	1.2	2.5		05/18/18 17:47	104-51-8	
n-Propylbenzene	**74.3**	ug/L	2.5	1.2	2.5		05/18/18 17:47	103-65-1	
o-Xylene	**9.3**	ug/L	2.5	1.2	2.5		05/18/18 17:47	95-47-6	
p-Isopropyltoluene	**14.4**	ug/L	2.5	1.2	2.5		05/18/18 17:47	99-87-6	
sec-Butylbenzene	**32.3**	ug/L	12.5	5.5	2.5		05/18/18 17:47	135-98-8	
tert-Butylbenzene	**<0.45**	ug/L	2.5	0.45	2.5		05/18/18 17:47	98-06-6	
trans-1,2-Dichloroethene	**2.1J**	ug/L	2.5	0.64	2.5		05/18/18 17:47	156-60-5	
trans-1,3-Dichloropropene	**<0.57**	ug/L	2.5	0.57	2.5		05/18/18 17:47	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	113	%	61-130		2.5		05/18/18 17:47	460-00-4	
Dibromofluoromethane (S)	124	%	67-130		2.5		05/18/18 17:47	1868-53-7	
Toluene-d8 (S)	95	%	70-130		2.5		05/18/18 17:47	2037-26-5	

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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-7 **Lab ID: 40169191004** Collected: 05/14/18 14:45 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:27	630-20-6	
1,1,1-Trichloroethane	**21.1**	ug/L	1.0	0.50	1		05/18/18 13:27	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		05/18/18 13:27	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		05/18/18 13:27	79-00-5	
1,1-Dichloroethane	**0.42J**	ug/L	1.0	0.24	1		05/18/18 13:27	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		05/18/18 13:27	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		05/18/18 13:27	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 13:27	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 13:27	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		05/18/18 13:27	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:27	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		05/18/18 13:27	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:27	78-87-5	L1
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		05/18/18 13:27	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		05/18/18 13:27	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:27	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		05/18/18 13:27	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		05/18/18 13:27	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		05/18/18 13:27	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		05/18/18 13:27	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		05/18/18 13:27	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		05/18/18 13:27	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 13:27	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		05/18/18 13:27	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		05/18/18 13:27	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:27	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		05/18/18 13:27	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	100-42-5	
Tetrachloroethene	**2.3**	ug/L	1.0	0.50	1		05/18/18 13:27	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-7 **Lab ID: 40169191004** Collected: 05/14/18 14:45 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	108-88-3	
Trichloroethene	**39.5**	ug/L	1.0	0.33	1		05/18/18 13:27	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:27	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:27	75-01-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/18/18 13:27	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		05/18/18 13:27	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:27	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 13:27	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:27	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/18/18 13:27	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:27	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		05/18/18 13:27	460-00-4	
Dibromofluoromethane (S)	116	%	67-130		1		05/18/18 13:27	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/18/18 13:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-102 **Lab ID: 40169191005** Collected: 05/14/18 15:00 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:48	630-20-6	
1,1,1-Trichloroethane	**69.0**	ug/L	1.0	0.50	1		05/18/18 13:48	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		05/18/18 13:48	79-34-5	
1,1,2-Trichloroethane	**1.3**	ug/L	1.0	0.20	1		05/18/18 13:48	79-00-5	
1,1-Dichloroethane	**29.7**	ug/L	1.0	0.24	1		05/18/18 13:48	75-34-3	
1,1-Dichloroethene	**0.87J**	ug/L	1.0	0.41	1		05/18/18 13:48	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		05/18/18 13:48	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 13:48	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 13:48	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		05/18/18 13:48	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:48	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		05/18/18 13:48	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:48	78-87-5	L1
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		05/18/18 13:48	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		05/18/18 13:48	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:48	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		05/18/18 13:48	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		05/18/18 13:48	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		05/18/18 13:48	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		05/18/18 13:48	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		05/18/18 13:48	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		05/18/18 13:48	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 13:48	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		05/18/18 13:48	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		05/18/18 13:48	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:48	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		05/18/18 13:48	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	100-42-5	
Tetrachloroethene	**1.6**	ug/L	1.0	0.50	1		05/18/18 13:48	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-102 **Lab ID: 40169191005** Collected: 05/14/18 15:00 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	108-88-3	
Trichloroethene	**162**	ug/L	1.0	0.33	1		05/18/18 13:48	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:48	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:48	75-01-4	
cis-1,2-Dichloroethene	**10.6**	ug/L	1.0	0.26	1		05/18/18 13:48	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		05/18/18 13:48	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 13:48	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 13:48	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		05/18/18 13:48	98-06-6	
trans-1,2-Dichloroethene	**0.62J**	ug/L	1.0	0.26	1		05/18/18 13:48	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 13:48	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		05/18/18 13:48	460-00-4	
Dibromofluoromethane (S)	117	%	67-130		1		05/18/18 13:48	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		05/18/18 13:48	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-10 **Lab ID: 40169191006** Collected: 05/14/18 15:15 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:10	630-20-6	
1,1,1-Trichloroethane	**35.5**	ug/L	1.0	0.50	1		05/18/18 14:10	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		05/18/18 14:10	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		05/18/18 14:10	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		05/18/18 14:10	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		05/18/18 14:10	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		05/18/18 14:10	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 14:10	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 14:10	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		05/18/18 14:10	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:10	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		05/18/18 14:10	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:10	78-87-5	L1
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		05/18/18 14:10	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		05/18/18 14:10	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:10	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		05/18/18 14:10	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		05/18/18 14:10	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		05/18/18 14:10	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		05/18/18 14:10	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		05/18/18 14:10	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		05/18/18 14:10	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 14:10	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		05/18/18 14:10	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		05/18/18 14:10	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:10	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		05/18/18 14:10	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	100-42-5	
Tetrachloroethene	**11.3**	ug/L	1.0	0.50	1		05/18/18 14:10	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: MW-10 **Lab ID: 40169191006** Collected: 05/14/18 15:15 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	108-88-3	
Trichloroethene	**86.3**	ug/L	1.0	0.33	1		05/18/18 14:10	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:10	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:10	75-01-4	
cis-1,2-Dichloroethene	**1.1**	ug/L	1.0	0.26	1		05/18/18 14:10	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		05/18/18 14:10	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:10	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 14:10	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:10	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		05/18/18 14:10	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:10	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		05/18/18 14:10	460-00-4	
Dibromofluoromethane (S)	117	%	67-130		1		05/18/18 14:10	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		05/18/18 14:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: PZ-1 **Lab ID: 40169191007** Collected: 05/14/18 15:30 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:32	630-20-6	
1,1,1-Trichloroethane	**120**	ug/L	1.0	0.50	1		05/18/18 14:32	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		05/18/18 14:32	79-34-5	
1,1,2-Trichloroethane	**0.44J**	ug/L	1.0	0.20	1		05/18/18 14:32	79-00-5	
1,1-Dichloroethane	**44.7**	ug/L	1.0	0.24	1		05/18/18 14:32	75-34-3	
1,1-Dichloroethene	**34.3**	ug/L	1.0	0.41	1		05/18/18 14:32	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		05/18/18 14:32	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 14:32	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 14:32	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		05/18/18 14:32	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:32	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		05/18/18 14:32	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:32	78-87-5	L1
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		05/18/18 14:32	594-20-7	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		05/18/18 14:32	106-43-4	
Benzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:32	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		05/18/18 14:32	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		05/18/18 14:32	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		05/18/18 14:32	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		05/18/18 14:32	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		05/18/18 14:32	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		05/18/18 14:32	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		05/18/18 14:32	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		05/18/18 14:32	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		05/18/18 14:32	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:32	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		05/18/18 14:32	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	100-42-5	
Tetrachloroethene	**0.63J**	ug/L	1.0	0.50	1		05/18/18 14:32	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Sample: PZ-1 **Lab ID: 40169191007** Collected: 05/14/18 15:30 Received: 05/16/18 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	108-88-3	
Trichloroethene	**271**	ug/L	1.0	0.33	1		05/18/18 14:32	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:32	75-69-4	
Vinyl chloride	**7.9**	ug/L	1.0	0.18	1		05/18/18 14:32	75-01-4	
cis-1,2-Dichloroethene	**139**	ug/L	1.0	0.26	1		05/18/18 14:32	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		05/18/18 14:32	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		05/18/18 14:32	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		05/18/18 14:32	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		05/18/18 14:32	98-06-6	
trans-1,2-Dichloroethene	**5.6**	ug/L	1.0	0.26	1		05/18/18 14:32	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		05/18/18 14:32	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		05/18/18 14:32	460-00-4	
Dibromofluoromethane (S)	114	%	67-130		1		05/18/18 14:32	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		05/18/18 14:32	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

QC Batch: 289266 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40169191001, 40169191002, 40169191003, 40169191004, 40169191005, 40169191006, 40169191007

METHOD BLANK: 1692585 Matrix: Water
Associated Lab Samples: 40169191001, 40169191002, 40169191003, 40169191004, 40169191005, 40169191006, 40169191007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	05/18/18 09:06	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	05/18/18 09:06	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	05/18/18 09:06	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	05/18/18 09:06	
1,1-Dichloroethane	ug/L	<0.24	1.0	05/18/18 09:06	
1,1-Dichloroethene	ug/L	<0.41	1.0	05/18/18 09:06	
1,1-Dichloropropene	ug/L	<0.44	1.0	05/18/18 09:06	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	05/18/18 09:06	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	05/18/18 09:06	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	05/18/18 09:06	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	05/18/18 09:06	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	05/18/18 09:06	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	05/18/18 09:06	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	05/18/18 09:06	
1,2-Dichloroethane	ug/L	<0.17	1.0	05/18/18 09:06	
1,2-Dichloropropane	ug/L	<0.23	1.0	05/18/18 09:06	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	05/18/18 09:06	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	05/18/18 09:06	
1,3-Dichloropropane	ug/L	<0.50	1.0	05/18/18 09:06	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	05/18/18 09:06	
2,2-Dichloropropane	ug/L	<0.48	1.0	05/18/18 09:06	
2-Chlorotoluene	ug/L	<0.50	1.0	05/18/18 09:06	
4-Chlorotoluene	ug/L	<0.21	1.0	05/18/18 09:06	
Benzene	ug/L	<0.50	1.0	05/18/18 09:06	
Bromobenzene	ug/L	<0.23	1.0	05/18/18 09:06	
Bromochloromethane	ug/L	<0.34	1.0	05/18/18 09:06	
Bromodichloromethane	ug/L	<0.50	1.0	05/18/18 09:06	
Bromoform	ug/L	<0.50	1.0	05/18/18 09:06	
Bromomethane	ug/L	<2.4	5.0	05/18/18 09:06	
Carbon tetrachloride	ug/L	<0.50	1.0	05/18/18 09:06	
Chlorobenzene	ug/L	<0.50	1.0	05/18/18 09:06	
Chloroethane	ug/L	<0.37	1.0	05/18/18 09:06	
Chloroform	ug/L	<2.5	5.0	05/18/18 09:06	
Chloromethane	ug/L	<0.50	1.0	05/18/18 09:06	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	05/18/18 09:06	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	05/18/18 09:06	
Dibromochloromethane	ug/L	<0.50	1.0	05/18/18 09:06	
Dibromomethane	ug/L	<0.43	1.0	05/18/18 09:06	
Dichlorodifluoromethane	ug/L	<0.22	1.0	05/18/18 09:06	
Diisopropyl ether	ug/L	<0.50	1.0	05/18/18 09:06	
Ethylbenzene	ug/L	<0.50	1.0	05/18/18 09:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

METHOD BLANK: 1692585 Matrix: Water
Associated Lab Samples: 40169191001, 40169191002, 40169191003, 40169191004, 40169191005, 40169191006, 40169191007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	05/18/18 09:06	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	05/18/18 09:06	
m&p-Xylene	ug/L	<1.0	2.0	05/18/18 09:06	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	05/18/18 09:06	
Methylene Chloride	ug/L	<0.23	1.0	05/18/18 09:06	
n-Butylbenzene	ug/L	<0.50	1.0	05/18/18 09:06	
n-Propylbenzene	ug/L	<0.50	1.0	05/18/18 09:06	
Naphthalene	ug/L	<2.5	5.0	05/18/18 09:06	
o-Xylene	ug/L	<0.50	1.0	05/18/18 09:06	
p-Isopropyltoluene	ug/L	<0.50	1.0	05/18/18 09:06	
sec-Butylbenzene	ug/L	<2.2	5.0	05/18/18 09:06	
Styrene	ug/L	<0.50	1.0	05/18/18 09:06	
tert-Butylbenzene	ug/L	<0.18	1.0	05/18/18 09:06	
Tetrachloroethene	ug/L	<0.50	1.0	05/18/18 09:06	
Toluene	ug/L	<0.50	1.0	05/18/18 09:06	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	05/18/18 09:06	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	05/18/18 09:06	
Trichloroethene	ug/L	<0.33	1.0	05/18/18 09:06	
Trichlorofluoromethane	ug/L	<0.18	1.0	05/18/18 09:06	
Vinyl chloride	ug/L	<0.18	1.0	05/18/18 09:06	
4-Bromofluorobenzene (S)	%	92	61-130	05/18/18 09:06	
Dibromofluoromethane (S)	%	113	67-130	05/18/18 09:06	
Toluene-d8 (S)	%	99	70-130	05/18/18 09:06	

LABORATORY CONTROL SAMPLE: 1692586

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	58.0	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	53.3	107	70-130	
1,1,2-Trichloroethane	ug/L	50	52.8	106	70-130	
1,1-Dichloroethane	ug/L	50	59.1	118	71-132	
1,1-Dichloroethene	ug/L	50	57.0	114	75-130	
1,2,4-Trichlorobenzene	ug/L	50	45.6	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.7	103	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	70-130	
1,2-Dichlorobenzene	ug/L	50	50.8	102	70-130	
1,2-Dichloroethane	ug/L	50	62.8	126	70-131	
1,2-Dichloropropane	ug/L	50	61.8	124	80-120	L1
1,3-Dichlorobenzene	ug/L	50	50.7	101	70-130	
1,4-Dichlorobenzene	ug/L	50	53.8	108	70-130	
Benzene	ug/L	50	57.8	116	73-145	
Bromodichloromethane	ug/L	50	59.9	120	70-130	
Bromoform	ug/L	50	50.2	100	67-130	
Bromomethane	ug/L	50	37.4	75	26-128	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

LABORATORY CONTROL SAMPLE: 1692586

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	59.6	119	70-133	
Chlorobenzene	ug/L	50	53.2	106	70-130	
Chloroethane	ug/L	50	47.6	95	58-120	
Chloroform	ug/L	50	54.7	109	80-121	
Chloromethane	ug/L	50	35.3	71	40-127	
cis-1,2-Dichloroethene	ug/L	50	43.3	87	70-130	
cis-1,3-Dichloropropene	ug/L	50	52.1	104	70-130	
Dibromochloromethane	ug/L	50	54.2	108	70-130	
Dichlorodifluoromethane	ug/L	50	18.0	36	20-135	
Ethylbenzene	ug/L	50	56.4	113	87-129	
Isopropylbenzene (Cumene)	ug/L	50	56.5	113	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methyl-tert-butyl ether	ug/L	50	54.0	108	66-143	
Methylene Chloride	ug/L	50	54.6	109	70-130	
o-Xylene	ug/L	50	56.5	113	70-130	
Styrene	ug/L	50	59.1	118	70-130	
Tetrachloroethene	ug/L	50	47.7	95	70-130	
Toluene	ug/L	50	53.6	107	82-130	
trans-1,2-Dichloroethene	ug/L	50	56.4	113	75-132	
trans-1,3-Dichloropropene	ug/L	50	49.4	99	70-130	
Trichloroethene	ug/L	50	55.7	111	70-130	
Trichlorofluoromethane	ug/L	50	52.3	105	76-133	
Vinyl chloride	ug/L	50	38.4	77	57-136	
4-Bromofluorobenzene (S)	%			104	61-130	
Dibromofluoromethane (S)	%			106	67-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1692687 1692688

Parameter	Units	40169311001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.50	50	50	57.9	58.7	116	117	70-134	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	54.7	56.2	109	112	70-130	3	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	55.3	54.8	111	110	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	58.4	55.4	117	111	71-133	5	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	53.5	51.9	107	104	75-136	3	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	47.7	48.0	95	96	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	54.4	53.8	109	108	63-123	1	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	53.4	53.8	107	108	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	50.7	52.1	101	104	70-130	3	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	61.3	60.1	123	120	70-131	2	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	63.9	62.3	128	125	80-120	3	20	M0
1,3-Dichlorobenzene	ug/L	<0.50	50	50	50.2	51.3	100	103	70-130	2	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	53.4	55.1	107	110	70-130	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1692687 1692688

Parameter	Units	40169311001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	<0.50	50	50	58.5	58.0	117	116	73-145	1	20	
Bromodichloromethane	ug/L	<0.50	50	50	61.3	59.5	123	119	70-130	3	20	
Bromoform	ug/L	<0.50	50	50	51.1	51.7	102	103	67-130	1	20	
Bromomethane	ug/L	<2.4	50	50	41.3	39.4	83	79	26-129	5	20	
Carbon tetrachloride	ug/L	<0.50	50	50	60.2	60.9	120	122	70-134	1	20	
Chlorobenzene	ug/L	<0.50	50	50	54.8	54.8	110	110	70-130	0	20	
Chloroethane	ug/L	<0.37	50	50	47.1	44.3	94	89	58-120	6	20	
Chloroform	ug/L	<2.5	50	50	56.7	58.0	113	116	80-121	2	20	
Chloromethane	ug/L	<0.50	50	50	36.7	32.9	73	66	40-128	11	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	44.4	52.9	89	106	70-130	18	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	53.9	50.9	108	102	70-130	6	20	
Dibromochloromethane	ug/L	<0.50	50	50	55.1	56.2	110	112	70-130	2	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	17.4	16.6	35	33	20-146	5	20	
Ethylbenzene	ug/L	<0.50	50	50	57.9	58.7	116	117	87-129	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	57.4	57.7	115	115	70-130	0	20	
m&p-Xylene	ug/L	<1.0	100	100	116	115	116	115	70-130	1	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	55.1	53.0	110	106	66-143	4	20	
Methylene Chloride	ug/L	<0.23	50	50	52.3	50.3	105	101	70-130	4	20	
o-Xylene	ug/L	<0.50	50	50	56.9	58.1	114	116	70-130	2	20	
Styrene	ug/L	<0.50	50	50	58.9	59.5	118	119	70-130	1	20	
Tetrachloroethene	ug/L	<0.50	50	50	49.2	48.8	98	98	70-130	1	20	
Toluene	ug/L	<0.50	50	50	54.7	54.5	109	109	82-131	0	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	54.4	52.5	109	105	75-135	4	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	50.5	49.4	101	99	70-130	2	20	
Trichloroethene	ug/L	<0.33	50	50	58.3	55.6	117	111	70-130	5	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	52.4	50.4	105	101	76-150	4	20	
Vinyl chloride	ug/L	<0.18	50	50	37.3	36.0	75	72	56-143	4	20	
4-Bromofluorobenzene (S)	%						103	104	61-130			
Dibromofluoromethane (S)	%						106	108	67-130			
Toluene-d8 (S)	%						98	98	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 17-0301 BADGER METAL
Pace Project No.: 40169191

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40169191001	**MW-12**	EPA 8260	289266		
40169191002	**PZ-2**	EPA 8260	289266		
40169191003	**MW-9**	EPA 8260	289266		
40169191004	**MW-7**	EPA 8260	289266		
40169191005	**MW-102**	EPA 8260	289266		
40169191006	**MW-10**	EPA 8260	289266		
40169191007	**PZ-1**	EPA 8260	289266		

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40169191

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	ReadyEarth
Branch/Location:	
Project Contact:	Jason Bartley
Phone:	262-522-3520
Project Number:	17-0301
Project Name:	Badger Metal
Project State:	WI
Sampled By (Print):	Jason E. Bartley
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	jbartley@readyearth.net
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	B	VOC			
001	MW-12	5-14-18	1400	GW			X	ONLY 2 VIALS		
002	PZ-2		1415				X			
003	MW-9		1430				X			
004	MW-7		1445				X			
005	MW-102		1500				X			
006	MW-10		1515				X			
007	PZ-1		1530				X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed: STD TAT

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	5-15-18 10:15	Mary Fannin	5/15/18 10:15
Mary Fannin	5/16/18 1445		
	5/16/18 1005	DSUMS pace	5/16/18 1005

PACE Project No. 40169191

Receipt Temp = 1.0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 05/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Ready Earth Project # 40169191

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☐N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

	Glass							Plastic							Vials						Jars			General							
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																			3														2.5 / 5 / 10
002																			3														2.5 / 5 / 10
003																			3														2.5 / 5 / 10
004																			3														2.5 / 5 / 10
005																			3														2.5 / 5 / 10
006																			3														2.5 / 5 / 10
007																			3														2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40169191

40169191

Client Name: Ready Earth

Courier: ☑ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 1.0 /Corr: _____

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 5/16/18
Initials: NS

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: W	☐Yes ☑No ☐N/A	12. NO collect times on labels NS 5/16/18
Trip Blank Present:	☐Yes ☑No ☐N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 5/16/18

Pace Analytical®
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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

August 29, 2017

Jason Bartley
ReadyEarth Consulting
W23N1670 Busse Rd.
Waukesha, WI 53188

RE: Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Dear Jason Bartley:
Enclosed are the analytical results for sample(s) received by the laboratory on August 21, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sarah Platzer
sarah.platzer@pacelabs.com
(612)607-1700
Project Manager

Enclosures

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: UST-078
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: MN00064
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming via EPA Region 8 Certification #: 8TMS-L

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10400361001	SS4-S	Air	08/18/17 11:45	08/21/17 10:30
10400361002	SS3-SW	Air	08/18/17 12:00	08/21/17 10:30
10400361003	SS2-NW	Air	08/18/17 12:20	08/21/17 10:30
10400361004	SS5-C	Air	08/18/17 12:45	08/21/17 10:30
10400361005	SS6-NE	Air	08/18/17 13:05	08/21/17 10:30
10400361006	SS1-N	Air	08/18/17 13:25	08/21/17 10:30

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SAMPLE ANALYTE COUNT

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10400361001	SS4-S	TO-15	CH1	5
10400361002	SS3-SW	TO-15	CH1	5
10400361003	SS2-NW	TO-15	CH1	5
10400361004	SS5-C	TO-15	CH1	5
10400361005	SS6-NE	TO-15	CH1	5
10400361006	SS1-N	TO-15	CH1	5

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Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Sample: SS4-S **Lab ID: 10400361001** Collected: 08/18/17 11:45 Received: 08/21/17 10:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
cis-1,2-Dichloroethene	**77.8**	ug/m3	1.1	0.30	1.39		08/23/17 21:22	156-59-2	
trans-1,2-Dichloroethene	**29.9**	ug/m3	1.1	0.27	1.39		08/23/17 21:22	156-60-5	
Tetrachloroethene	**2130**	ug/m3	153	63.8	222.4		08/25/17 07:59	127-18-4	A3
Trichloroethene	**34000**	ug/m3	122	45.1	222.4		08/25/17 07:59	79-01-6	A3
Vinyl chloride	**<0.18**	ug/m3	0.36	0.18	1.39		08/23/17 21:22	75-01-4	

Sample: SS3-SW **Lab ID: 10400361002** Collected: 08/18/17 12:00 Received: 08/21/17 10:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
cis-1,2-Dichloroethene	**0.78J**	ug/m3	1.1	0.29	1.34		08/23/17 22:30	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/m3	1.1	0.26	1.34		08/23/17 22:30	156-60-5	
Tetrachloroethene	**58.1**	ug/m3	0.92	0.38	1.34		08/23/17 22:30	127-18-4	
Trichloroethene	**1980**	ug/m3	36.8	13.6	67		08/25/17 07:29	79-01-6	
Vinyl chloride	**<0.17**	ug/m3	0.35	0.17	1.34		08/23/17 22:30	75-01-4	

Sample: SS2-NW **Lab ID: 10400361003** Collected: 08/18/17 12:20 Received: 08/21/17 10:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
cis-1,2-Dichloroethene	**0.68J**	ug/m3	1.1	0.29	1.34		08/23/17 23:38	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/m3	1.1	0.26	1.34		08/23/17 23:38	156-60-5	
Tetrachloroethene	**1.2**	ug/m3	0.92	0.38	1.34		08/23/17 23:38	127-18-4	
Trichloroethene	**99.3**	ug/m3	0.74	0.27	1.34		08/23/17 23:38	79-01-6	
Vinyl chloride	**<0.17**	ug/m3	0.35	0.17	1.34		08/23/17 23:38	75-01-4	

Sample: SS5-C **Lab ID: 10400361004** Collected: 08/18/17 12:45 Received: 08/21/17 10:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
cis-1,2-Dichloroethene	**<0.30**	ug/m3	1.1	0.30	1.39		08/23/17 23:04	156-59-2	
trans-1,2-Dichloroethene	**<0.27**	ug/m3	1.1	0.27	1.39		08/23/17 23:04	156-60-5	
Tetrachloroethene	**28.2**	ug/m3	0.96	0.40	1.39		08/23/17 23:04	127-18-4	
Trichloroethene	**1980**	ug/m3	15.3	5.6	27.8		08/25/17 07:00	79-01-6	
Vinyl chloride	**<0.18**	ug/m3	0.36	0.18	1.39		08/23/17 23:04	75-01-4	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Sample: SS6-NE **Lab ID: 10400361005** Collected: 08/18/17 13:05 Received: 08/21/17 10:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
cis-1,2-Dichloroethene	**<0.30**	ug/m3	1.1	0.30	1.39		08/24/17 00:12	156-59-2	
trans-1,2-Dichloroethene	**<0.27**	ug/m3	1.1	0.27	1.39		08/24/17 00:12	156-60-5	
Tetrachloroethene	**3.4**	ug/m3	0.96	0.40	1.39		08/24/17 00:12	127-18-4	
Trichloroethene	**7.3**	ug/m3	0.76	0.28	1.39		08/24/17 00:12	79-01-6	
Vinyl chloride	**<0.18**	ug/m3	0.36	0.18	1.39		08/24/17 00:12	75-01-4	

Sample: SS1-N **Lab ID: 10400361006** Collected: 08/18/17 13:25 Received: 08/21/17 10:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
cis-1,2-Dichloroethene	**<0.29**	ug/m3	1.1	0.29	1.34		08/23/17 20:12	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/m3	1.1	0.26	1.34		08/23/17 20:12	156-60-5	
Tetrachloroethene	**1.8**	ug/m3	0.92	0.38	1.34		08/23/17 20:12	127-18-4	
Trichloroethene	**20.6**	ug/m3	0.74	0.27	1.34		08/23/17 20:12	79-01-6	
Vinyl chloride	**<0.17**	ug/m3	0.35	0.17	1.34		08/23/17 20:12	75-01-4	

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QUALITY CONTROL DATA

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

QC Batch: 492885 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10400361001, 10400361002, 10400361003, 10400361004, 10400361005, 10400361006

METHOD BLANK: 2681719 Matrix: Air
Associated Lab Samples: 10400361001, 10400361002, 10400361003, 10400361004, 10400361005, 10400361006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.22	0.81	08/23/17 13:59	
Tetrachloroethene	ug/m3	<0.29	0.69	08/23/17 13:59	
trans-1,2-Dichloroethene	ug/m3	<0.20	0.81	08/23/17 13:59	
Trichloroethene	ug/m3	<0.20	0.55	08/23/17 13:59	
Vinyl chloride	ug/m3	<0.13	0.26	08/23/17 13:59	

LABORATORY CONTROL SAMPLE: 2681720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	38.0	94	70-133	
Tetrachloroethene	ug/m3	68.9	55.6	81	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	51.5	128	70-131	
Trichloroethene	ug/m3	54.6	59.1	108	70-130	
Vinyl chloride	ug/m3	26	30.9	119	70-130	

SAMPLE DUPLICATE: 2682530

Parameter	Units	10400361006 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.29	<0.29		25	
Tetrachloroethene	ug/m3	1.8	1.5	16	25	
trans-1,2-Dichloroethene	ug/m3	<0.26	<0.26		25	
Trichloroethene	ug/m3	20.6	19.1	8	25	
Vinyl chloride	ug/m3	<0.17	<0.17		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 10400361002

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10400361003

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10400361004

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10400361005

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10400361006

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 2682530

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

ANALYTE QUALIFIERS

A3 The sample was analyzed by serial dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 17-0301 Badger Metal
Pace Project No.: 10400361

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10400361001	**SS4-S**	TO-15	492885		
10400361002	**SS3-SW**	TO-15	492885		
10400361003	**SS2-NW**	TO-15	492885		
10400361004	**SS5-C**	TO-15	492885		
10400361005	**SS6-NE**	TO-15	492885		
10400361006	**SS1-N**	TO-15	492885		

10400361

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

27489 | Page: 1 of 1

Section A Required Client Information:
Company: Reed Earth Consulting
Address: P.O. Box 305
Pewaukee WI 53072
Email To: jbartley@reedyearth.net
Phone: 262-522-3520 Fax: 262-522-3501
Requested Due Date/TAT: STD.

Section B Required Project Information:
Report To: jbartley@reedyearth.net
Copy To:
Purchase Order No.:
Project Name: BADGER METAL
Project Number: 17-0301

Section C Invoice Information:
Attention:
Company Name:
Address: SAME
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State: WI

Reporting Units: ug/m³ ___ mg/m³ ___ PPBV X PPMV ___ Other ___

Report Level II.___ III.___ IV.___ Other___

*Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	*Section D AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	COLLECTED COMPOSITE START END/GRAB TIME	COLLECTED COMPOSITE END DATE	COLLECTED COMPOSITE END TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C: Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List	Pace Lab ID
1	SS4-S	6LC	4	8-18-17	1100	8-18	1145	-29	0	09466	FC2809									X	
2	SS3-SW		0		1115		1200	-29	0	02400	FC1185									X	
3	SS2-NW		0		1130		1220	-30	0	05855	FC1183									X	
4	SS5-C		0		1200		1245	-30	0	01771	FC0737									X	
5	SS6-NE		0		1220		1305	-29	0	02177	FC0794									X	
6	SS1-N		24		1240		1325	-29	0	00311	FC0723									X	
7																					
8																					
9																					
10																					
11																					
12																					

Comments:
*CIS-1,2-DCE
TRANS-1,2-DCE
TCE
PCE
VINYL CHLORIDE ORIGINAL

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	8-18-17	3:45	PACE	8/21/17	1630

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: JASON E. BARTLEY
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8-18-17

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26APR2016 Page 1 of 1
	Document No.: F-MN-A-106-rev.11	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: Ready Farm Consulting

Project #: WO# : 10400361

10400361

Courier: ☑ Fed Ex ☐ UPS ☐ Speedee ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7300 9905 4821 4810

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Tin Can ☐ Other: **Temp Blank rec:** ☐ Yes ☑ No

Temp. (TO17 and TO13 samples only) (°C): ✓ **Corrected Temp (°C):** ✓ **Thermom. Used:** ☐ B88A912167504 ☐ B88A0143310098 ☐ 151401163 ☐ 151401164

Temp should be above freezing to 6°C **Correction Factor:** ✓ **Date & Initials of Person Examining Contents:** MDJ 8/24/17

Type of Ice Received ☐ Blue ☐ Wet ☑ None

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Media: Air Can Airbag Filter TDT Passive				11.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 8/22/2017

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

Lab Sample No: 10400361001 ProjSampleNum: 10400361001 Date Collected: 08/18/17 11:45
Client Sample ID: SS4-S Matrix: Air Date Received: 08/21/17 10:30

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
Air							
TO-15							
cis-1,2-Dichloroethene	19.3	ppbv	0.27	0.074	08/23/17 21:22 CH1	156-59-2	
Tetrachloroethene	309	ppbv	22.2	9.3	08/25/17 7:59 CH1	127-18-4	A3
trans-1,2-Dichloroethene	7.4	ppbv	0.27	0.067	08/23/17 21:22 CH1	156-60-5	
Trichloroethene	6220	ppbv	22.3	8.3	08/25/17 7:59 CH1	79-01-6	A3
Vinyl chloride	<0.069	ppbv	0.14	0.069	08/23/17 21:22 CH1	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

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Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

Lab Sample No: 10400361002 ProjSampleNum: 10400361002 Date Collected: 08/18/17 12:00
Client Sample ID: SS3-SW Matrix: Air Date Received: 08/21/17 10:30

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
Air							
TO-15							
cis-1,2-Dichloroethene	0.19J	ppbv	0.27	0.072	08/23/17 22:30 CH1	156-59-2	
Tetrachloroethene	8.4	ppbv	0.13	0.055	08/23/17 22:30 CH1	127-18-4	
trans-1,2-Dichloroethene	<0.065	ppbv	0.27	0.065	08/23/17 22:30 CH1	156-60-5	
Trichloroethene	362	ppbv	6.7	2.5	08/25/17 7:29 CH1	79-01-6	
Vinyl chloride	<0.065	ppbv	0.13	0.065	08/23/17 22:30 CH1	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

Lab Sample No: 10400361003 ProjSampleNum: 10400361003 Date Collected: 08/18/17 12:20
Client Sample ID: SS2-NW Matrix: Air Date Received: 08/21/17 10:30

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
Air							
TO-15							
cis-1,2-Dichloroethene	0.17J	ppbv	0.27	0.072	08/23/17 23:38 CH1	156-59-2	
Tetrachloroethene	0.17	ppbv	0.13	0.055	08/23/17 23:38 CH1	127-18-4	
trans-1,2-Dichloroethene	<0.065	ppbv	0.27	0.065	08/23/17 23:38 CH1	156-60-5	
Trichloroethene	18.2	ppbv	0.14	0.049	08/23/17 23:38 CH1	79-01-6	
Vinyl chloride	<0.065	ppbv	0.13	0.065	08/23/17 23:38 CH1	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

Lab Sample No: 10400361004 ProjSampleNum: 10400361004 Date Collected: 08/18/17 12:45
Client Sample ID: SS5-C Matrix: Air Date Received: 08/21/17 10:30

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.074	ppbv	0.27	0.074	08/23/17 23:04 CH1	156-59-2	
Tetrachloroethene	4.1	ppbv	0.14	0.058	08/23/17 23:04 CH1	127-18-4	
trans-1,2-Dichloroethene	<0.067	ppbv	0.27	0.067	08/23/17 23:04 CH1	156-60-5	
Trichloroethene	362	ppbv	2.8	1	08/25/17 7:00 CH1	79-01-6	
Vinyl chloride	<0.069	ppbv	0.14	0.069	08/23/17 23:04 CH1	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

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ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

Lab Sample No: 10400361005 ProjSampleNum: 10400361005 Date Collected: 08/18/17 13:05
Client Sample ID: SS6-NE Matrix: Air Date Received: 08/21/17 10:30

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.074	ppbv	0.27	0.074	08/24/17 0:12 CH1	156-59-2	
Tetrachloroethene	0.49	ppbv	0.14	0.058	08/24/17 0:12 CH1	127-18-4	
trans-1,2-Dichloroethene	<0.067	ppbv	0.27	0.067	08/24/17 0:12 CH1	156-60-5	
Trichloroethene	1.3	ppbv	0.14	0.051	08/24/17 0:12 CH1	79-01-6	
Vinyl chloride	<0.069	ppbv	0.14	0.069	08/24/17 0:12 CH1	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

Lab Sample No: 10400361006 ProjSampleNum: 10400361006 Date Collected: 08/18/17 13:25
Client Sample ID: SS1-N Matrix: Air Date Received: 08/21/17 10:30

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.072	ppbv	0.27	0.072	08/23/17 20:12 CH1	156-59-2	
Tetrachloroethene	0.26	ppbv	0.13	0.055	08/23/17 20:12 CH1	127-18-4	
trans-1,2-Dichloroethene	<0.065	ppbv	0.27	0.065	08/23/17 20:12 CH1	156-60-5	
Trichloroethene	3.8	ppbv	0.14	0.049	08/23/17 20:12 CH1	79-01-6	
Vinyl chloride	<0.065	ppbv	0.13	0.065	08/23/17 20:12 CH1	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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ANALYTICAL RESULTS

Client: ReadyEarth Consulting
Phone:

Lab Project Number: 10400361
Project Name: 17-0301 Badger Metal

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

[A3] The sample was analyzed by serial dilution.