



VIA ELECTRONIC MAIL

July 27, 2018

Mr. John T. Hunt
Project Manager
Wisconsin Department of Natural Resources
Superior Office
1701 N 4th Street
Superior, Wisconsin 54880

**Subject: Project Status Update No. 4 (2nd Quarter 2018 Sampling Event)
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin
WDNR BRRTS # 02-16-00475**

Dear Mr. Hunt:

On behalf of Magellan Pipeline Company, L.P. (Magellan), WSP USA, Inc. (WSP), formerly Leggette, Brashears & Graham, is submitting a project status update for the Magellan Superior Station (Station). The Station is located near 2301 Winter Street (Figure 1). Magellan has recently conducted three rounds of quarterly groundwater sampling at the Station in anticipation of requesting site closure from the Wisconsin Department of Natural Resources (WDNR). This project status update provides the results from the most recent groundwater sampling event, which was completed during June 2018.

BACKGROUND INFORMATION

In October 2008, Magellan implemented the WDNR-approved remedial option of soil excavation to address historical site impacts. Historical contaminants of concern included benzene, ethylbenzene, trimethylbenzenes, and select polynuclear aromatic hydrocarbons (PAHs) including naphthalene. The remedial action consisted of removing 1,100 cubic yards of petroleum-impacted soils followed by post-remediation groundwater monitoring. In February 2010, the WDNR stated that: a) the excavation was of sufficient extent to reduce further risk(s); b) there is no evidence of off-site plume migration; c) downgradient sentry wells (MW-7, MW-8) remain non-detect for target parameters; and d) all wells except MW-4 have documented stable or decreasing trends for petroleum volatile organic compounds (PVOCs). The WDNR stated that no additional active remediation was required. Semi-annual sampling was conducted through 2011 and draft Case Closure documents were prepared based on stable MW-4 groundwater concentrations; however, closure was not requested pending the resolution of site lease issues.

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During 2017, the WDNR indicated that site closure could be requested if current groundwater quality data documented a stable, self-limiting plume with no off-site migration. Groundwater sampling was conducted during October 2017. Groundwater was at historic high elevations in the monitoring wells and free-phase product (free product) was detected in MW-4. Product had not been previously detected on site. Additional Station monitoring activities were conducted during November 2017, including bi-weekly fluid-level measurements. Observable free product or sheen was not observed in MW-4 following November 3, 2017.

SYNOPSIS OF JUNE 2018 ACTIVITIES

On June 28, 2018, a WSP sampling technician measured fluid levels and collected groundwater samples for laboratory analysis. Fluid levels were measured to monitor for potential sheen or free product and to evaluate water-table elevation trends. No sheen nor free product was observed in any of the wells. Historical fluid-level data are summarized on Table 1. A hydrograph (Figure 2) shows that the Station's groundwater elevation was at a historically high level when free product was observed in MW-4 during Fall 2017. Following the October 2017 sampling event, groundwater fluid-level elevations decreased. A hydrograph (Figure 3) of fluid-level elevations from late October 2017 through January 2018 depict a steady decline in groundwater fluid-level elevations. In June 2018, the elevation of the groundwater table increased slightly from January 2018 but was lower than the Fall 2017 water table elevation. Fluid-level elevations measured during June 2018 are within the historical range of elevations observed between 2006 and 2011. The groundwater flow direction has remained consistent with historical flow patterns. A groundwater elevation contour map derived from the June 2018 monitoring event is attached as Figure 4.

The groundwater samples collected during June 2018 were analyzed for PVOCs and PAHs. The most recent PVOC analytical data are summarized on Table 2 and Figure 5 (benzene contour map). The analytical report is included in Attachment A. Historical PVOC analytical data are summarized on Table 3. The analytical data for the June 2018 sampling event indicates that groundwater benzene concentrations are either non-detect, trending downward, or stable with historical concentrations. Benzene concentration trends are depicted on Figure 6. Toluene and total xylenes were not detected at concentrations above the Preventive Action Limits (PAL) in the groundwater samples collected during the June 2018 sampling event. Ethylbenzene concentrations reported in samples from MW-4 and MW-6 were greater than the PAL but less than the Enforcement Standard (ES) and less than or equal to concentrations reported from 2007 through 2011. Trimethylbenzene (1,2,4 and 1,3,5) and methyl-tert butyl ether concentrations in source area well MW-4 exceeded PAL or ES during June 2018; however, concentrations in downgradient wells MW-6 and MW-7 were less than MW-4 or were non-detect for these constituents.

PAHs were not detected at concentrations above the PAL in any of the groundwater samples collected during the June 2018 sampling event (Table 4). Likewise, PAHs were not detected at concentrations above the PAL during preceding two quarterly sampling events. Historical PAH analytical data are summarized on Table 5.

SUMMARY AND PROPOSED PATH FORWARD:

The results of the June 2018 groundwater monitoring activities indicate the following:

- No observable free product nor sheen has been observed in MW-4 since November 3, 2017;
- The water table was at historically high elevations during the October and November 2017 monitoring events when free product or sheen was observed;
- Recent concentrations for PAHs are below the PALs;
- Recent concentrations of benzene, toluene, ethylbenzene, xylenes and trimethylbenzene are either non-detect, trending downward, or are stable with historical concentrations; and,



— The historical contaminants of concern are within a self-limiting plume with no off-site migration.

Based on the above findings, Magellan plans to conduct a final quarterly sampling event in September 2018 and then request concurrence from the WDNR project manager that the process of preparing the Case Closure submittal and the landowner notification documents should resume.

Kind regards,

A handwritten signature in black ink that reads "Jennifer Shelton". The signature is written in a cursive, flowing style.

Jennifer Shelton, P.E.
Lead Environmental Engineer

JS/bd
Encl.

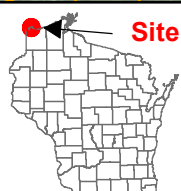
cc: Heather Tittjung, Magellan (electronic)

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FIGURES

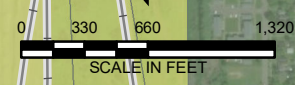


WSP Office: St. Paul, MN, U.S.A. | Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
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 NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A PROFESSIONAL. DO NOT ALTER THIS DOCUMENT IN ANY WAY WITHOUT THE WRITTEN CONSENT OF WSP USA INC.

- Site Boundary
- Magellan - Leased Parcel
- Burlington Northern Parcel Ownership



Drawn: 4/11/2018
 Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



SUPERIOR STATION
SUPERIOR, WISCONSIN
 PREPARED FOR
MAGELLAN PIPELINE COMPANY, L.P.

FIGURE 1
AREA LOCATION

Figure 2

Historical Monitoring Well Hydrograph
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin

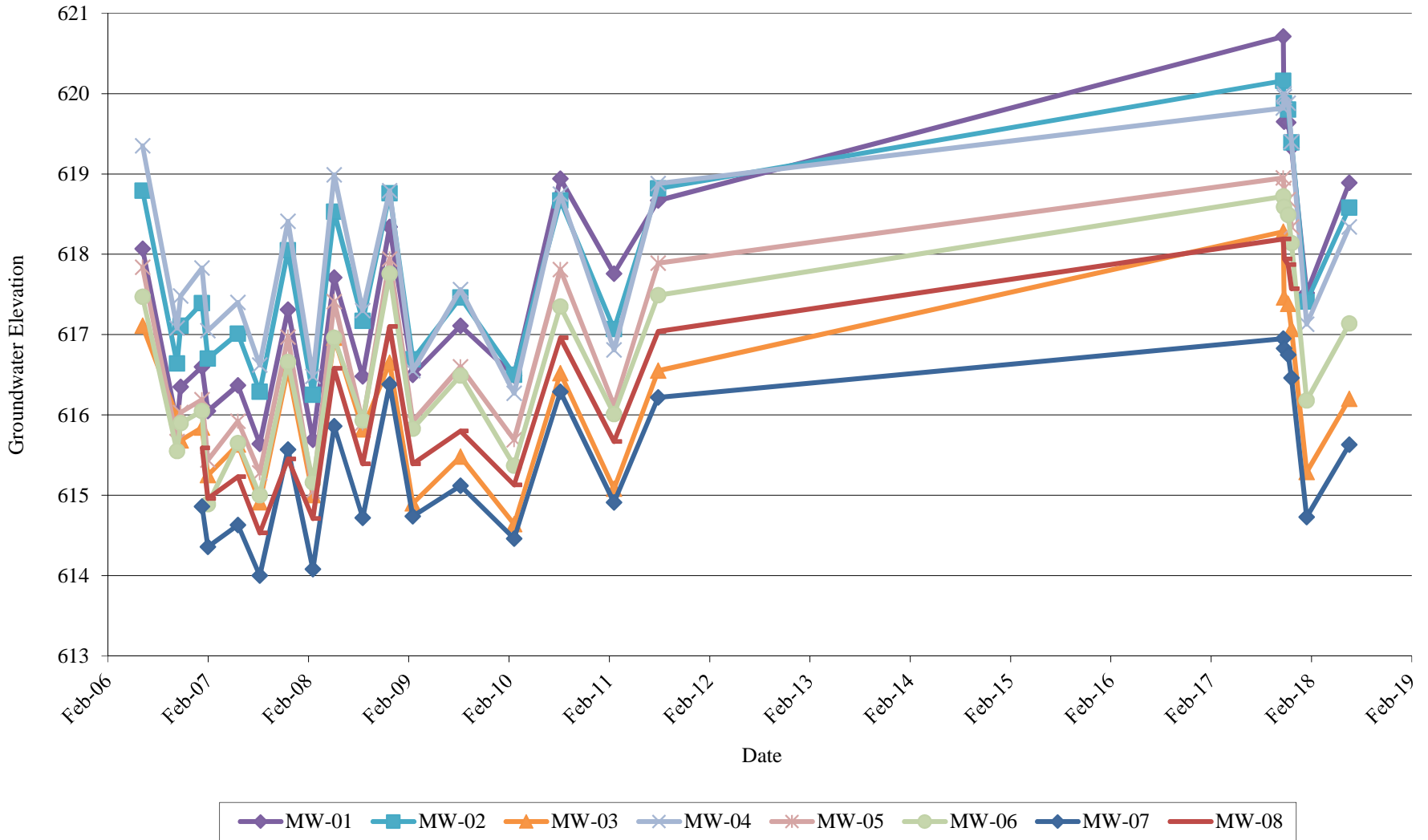
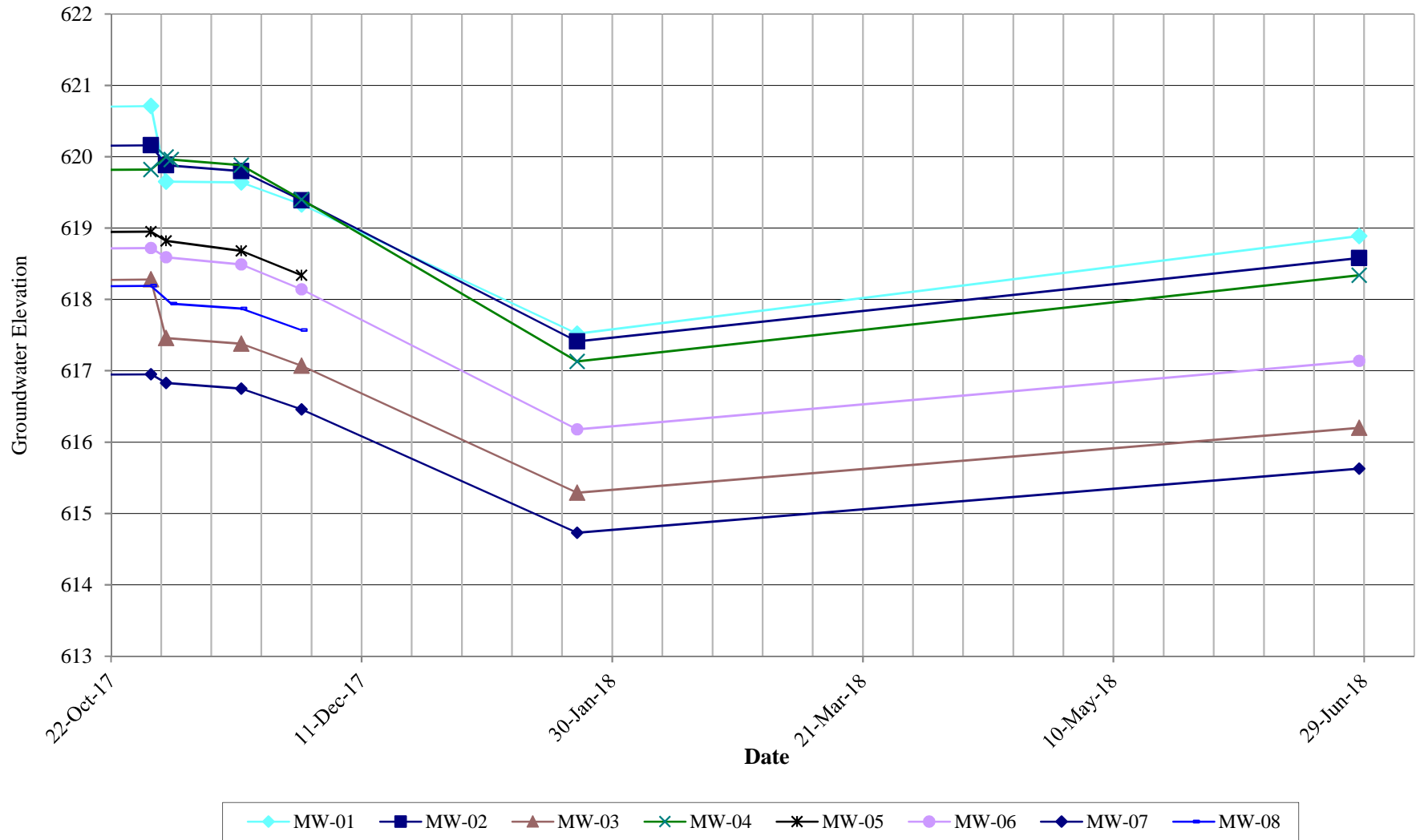
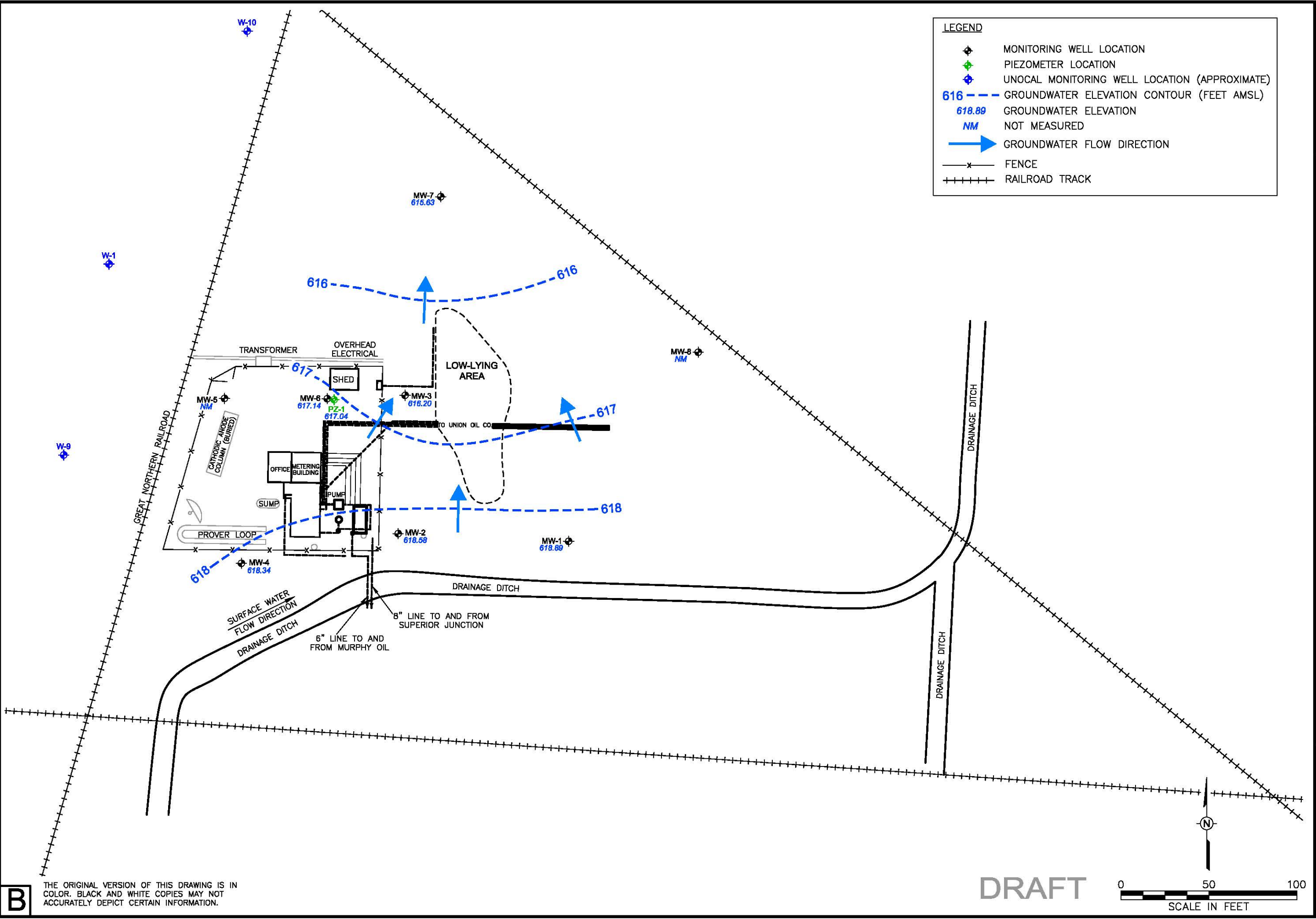


Figure 3

Recent Monitoring Well Hydrograph
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin



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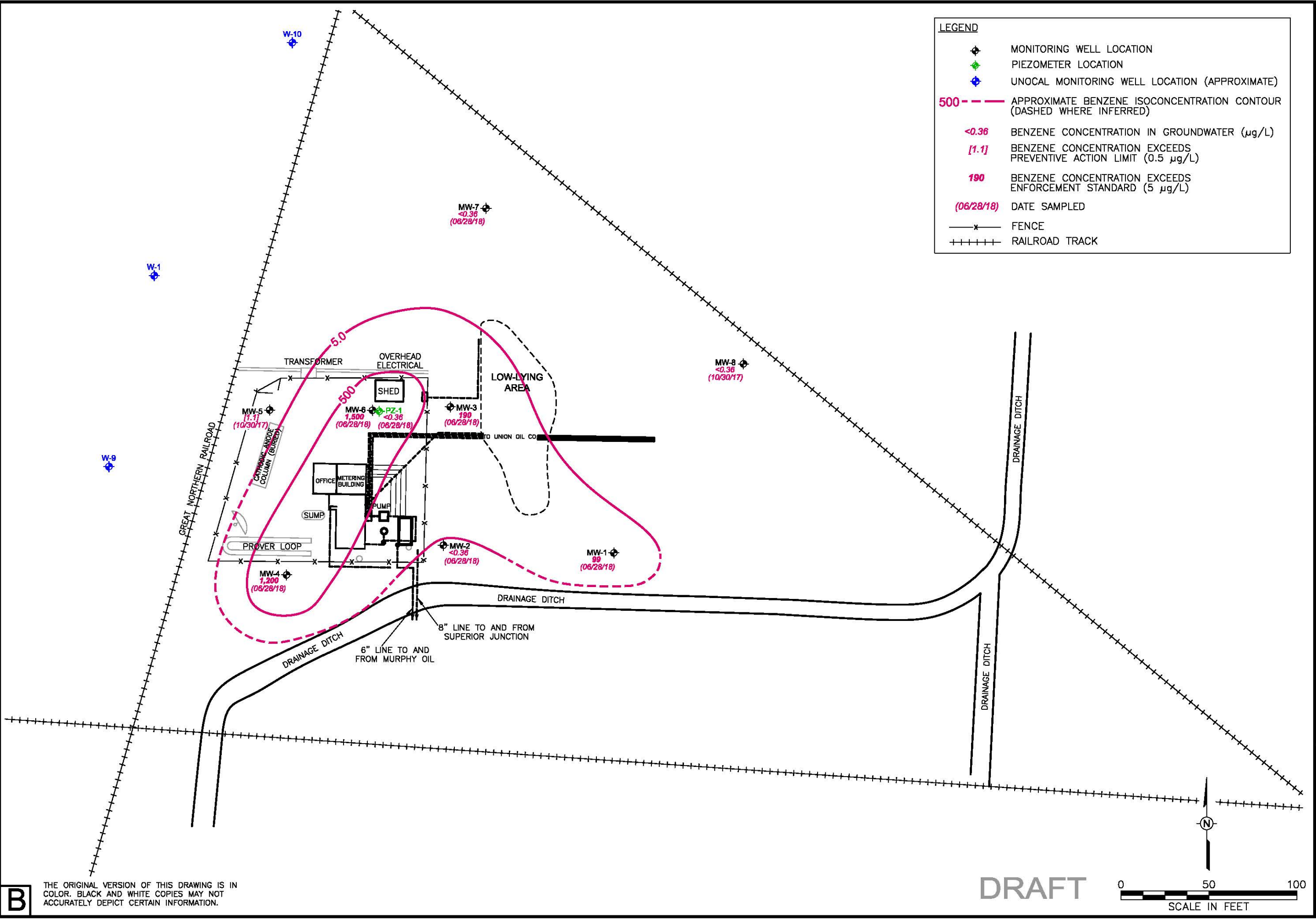
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Checked: JAS	7/23/2018
Approved: JAS	7/23/2018
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SUPERIOR STATION
 SUPERIOR, WISCONSIN
 PREPARED FOR
 MAGELLAN PIPELINE COMPANY, L.P.
 TULSA, OKLAHOMA

Figure 4
 GROUNDWATER ELEVATION CONTOUR MAP
 JUNE 28, 2018

WSP USA, Inc.
 3857 MCKEE ROAD
 SUITE 7
 MADISON, WI 53719
 TEL: +1 608.441.5544

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LEGEND	
	MONITORING WELL LOCATION
	PIEZOMETER LOCATION
	UNOCAL MONITORING WELL LOCATION (APPROXIMATE)
	500 --- APPROXIMATE BENZENE ISOCONCENTRATION CONTOUR (DASHED WHERE INFERRED)
	<0.36 BENZENE CONCENTRATION IN GROUNDWATER (µg/L)
	[1.1] BENZENE CONCENTRATION EXCEEDS PREVENTIVE ACTION LIMIT (0.5 µg/L)
	190 BENZENE CONCENTRATION EXCEEDS ENFORCEMENT STANDARD (5 µg/L)
	(06/28/18) DATE SAMPLED
	— x — FENCE
	+ + + + + RAILROAD TRACK

Drawn By: LS	7/23/2018
Checked: JAS	7/23/2018
Approved: JAS	7/23/2018
DWG Name: 314M1067.433-003	

SUPERIOR STATION
 SUPERIOR, WISCONSIN
 PREPARED FOR
 MAGELLAN PIPELINE COMPANY, L.P.
 TULSA, OKLAHOMA

Figure 5
 BENZENE CONCENTRATION IN GROUNDWATER
 JUNE 28, 2018

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 3857 MCKEE ROAD
 SUITE 7
 MADISON, WI 53719
 TEL: +1 608.441.5544

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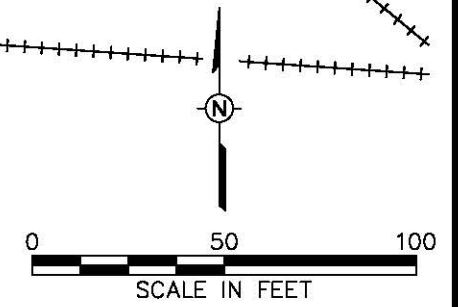
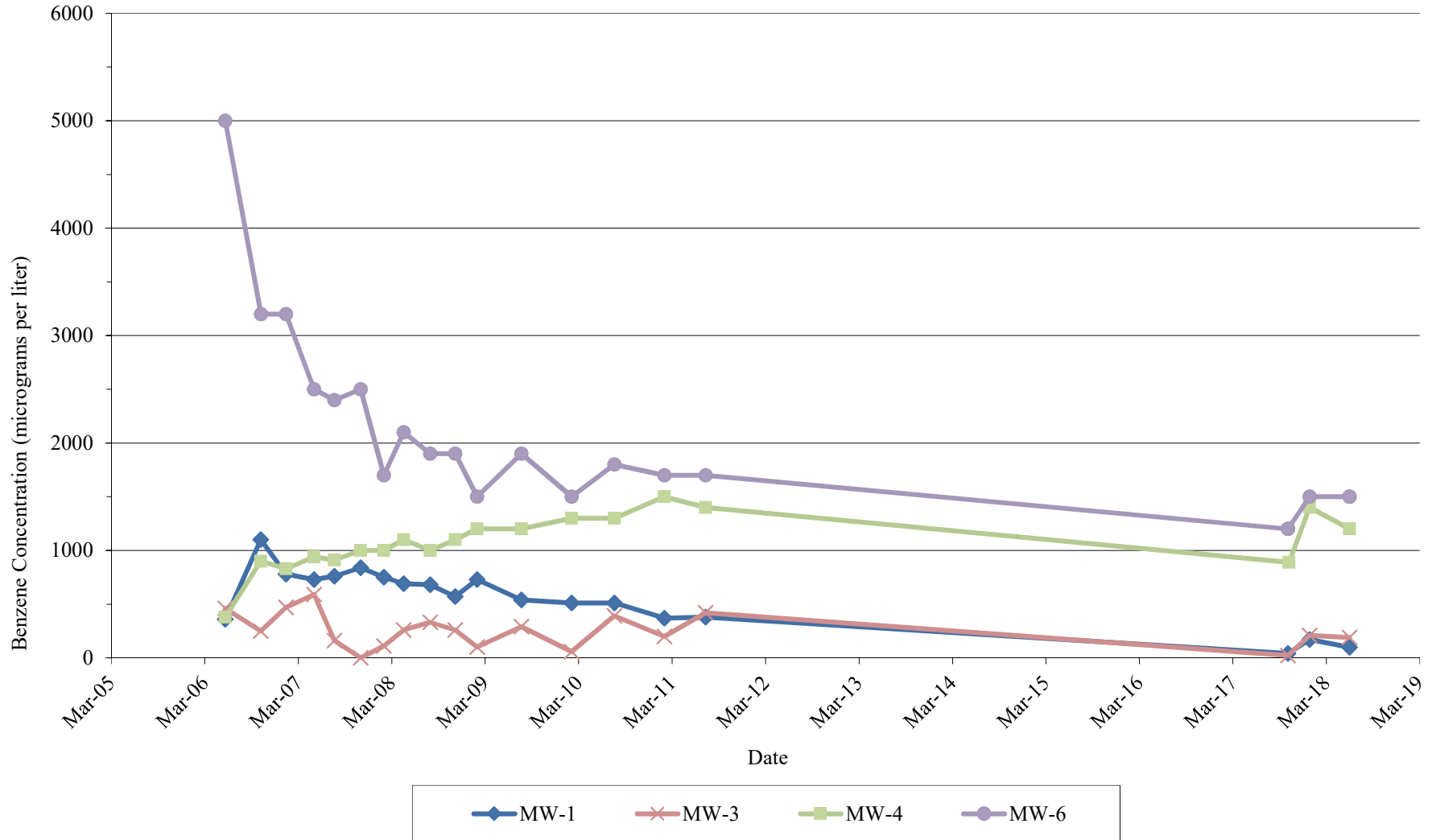


Figure 6

**Benzene Concentrations Trends
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin**



TABLES

Table 1

**Fluid-Level Measurements
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Well Number	Date	Well Depth (b)	TOC Elevation (c)	Depth to Product	Depth to Water	Product Thickness	Corrected Water Elevation (d)
MW-01	06/08/06	35.50	631.35	--	13.28	--	618.07
MW-01	10/12/06	35.50	631.35	--	15.46	--	615.89
MW-01	10/25/06	35.50	631.35	--	15.00	--	616.35
MW-01	01/11/07	33.00	631.35	--	14.75	--	616.60
MW-01	02/01/07	33.00	631.35	--	15.30	--	616.05
MW-01	05/22/07	33.00	631.35	--	14.98	--	616.37
MW-01	08/09/07	33.00	631.35	--	15.71	--	615.64
MW-01	11/20/07	33.00	631.35	--	14.04	--	617.31
MW-01	02/19/08	33.00	631.35	--	15.66	--	615.69
MW-01	05/07/08	33.00	631.35	--	13.64	--	617.71
MW-01	08/19/08	33.00	631.35	--	14.87	--	616.48
MW-01	11/25/08	33.00	631.35	--	13.01	--	618.34
MW-01	02/18/09	33.00	631.35	--	14.85	--	616.50
MW-01	08/11/09	33.00	631.35	--	14.24	--	617.11
MW-01	02/23/10	33.00	631.35	--	14.86	--	616.49
MW-01	08/10/10	33.00	631.35	--	12.41	--	618.94
MW-01	02/22/11	33.00	631.35	--	13.59	--	617.76
MW-01	08/02/11	33.00	631.35	--	12.68	--	618.67
MW-01	10/30/17	33.00	631.35	--	10.64	--	620.71
MW-01	11/02/17	33.00	631.35	--	11.70	--	619.65
MW-01	11/17/17	33.00	631.35	--	11.71	--	619.64
MW-01	11/29/17	33.00	631.35	--	12.02	--	619.33
MW-01	01/23/18	33.00	631.35	--	13.83	--	617.52
MW-01	06/28/18	33.00	631.35	--	12.46	--	618.89
MW-02	06/08/06	34.65	632.01	--	13.22	--	618.79
MW-02	10/12/06	34.65	632.01	--	15.37	--	616.64
MW-02	10/25/06	34.65	632.01	--	14.90	--	617.11
MW-02	01/11/07	32.00	632.01	--	14.62	--	617.39
MW-02	02/01/07	32.00	632.01	--	15.31	--	616.70
MW-02	05/22/07	32.00	632.01	--	15.00	--	617.01
MW-02	08/09/07	32.00	632.01	--	15.72	--	616.29
MW-02	11/20/07	32.00	632.01	--	13.96	--	618.05
MW-02	02/19/08	32.00	632.01	--	15.76	--	616.25
MW-02	05/07/08	32.00	632.01	--	13.48	--	618.53
MW-02	08/19/08	32.00	632.01	--	14.84	--	617.17
MW-02	11/25/08	32.00	631.73	--	12.97	--	618.76
MW-02	02/18/09	32.00	631.73	--	15.04	--	616.69
MW-02	08/11/09	32.00	631.73	--	14.27	--	617.46
MW-02	02/23/10	32.00	631.73	--	15.23	--	616.50
MW-02	08/10/10	32.00	631.73	--	13.06	--	618.67
MW-02	02/22/11	32.00	631.73	--	14.66	--	617.07
MW-02	08/02/11	32.00	631.73	--	12.91	--	618.82
MW-02	10/30/17	32.00	631.73	--	11.57	--	620.16
MW-02	11/02/17	32.00	631.73	--	11.85	--	619.88
MW-02	11/17/17	32.00	631.73	--	11.93	--	619.80
MW-02	11/29/17	32.00	631.73	--	12.34	--	619.39
MW-02	01/23/18	32.00	631.73	--	14.32	--	617.41
MW-02	06/28/18	32.00	631.73	--	13.15	--	618.58

Table 1

**Fluid-Level Measurements
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Well Number	Date	Well Depth (b)	TOC Elevation (c)	Depth to Product	Depth to Water	Product Thickness	Corrected Water Elevation (d)
MW-03	06/08/06	30.45	631.47	--	14.36	--	617.11
MW-03	10/12/06	30.45	632.29	--	16.31	--	615.98
MW-03	10/25/06	30.45	631.59	--	15.91	--	615.68
MW-03	01/11/07	28.00	631.59	--	15.75	--	615.84
MW-03	02/01/07	28.00	631.59	--	16.34	--	615.25
MW-03	05/22/07	28.00	631.59	--	15.96	--	615.63
MW-03	08/09/07	28.00	631.59	--	16.68	--	614.91
MW-03	11/20/07	28.00	631.59	--	15.01	--	616.58
MW-03	02/19/08	28.00	631.59	--	16.59	--	615.00
MW-03	05/07/08	28.00	631.59	--	14.63	--	616.96
MW-03	08/19/08	28.00	631.59	--	15.77	--	615.82
MW-03	11/25/08	28.00	631.47	--	14.82	--	616.65
MW-03	02/18/09	28.00	631.47	--	16.57	--	614.90
MW-03	08/11/09	28.00	631.47	--	15.99	--	615.48
MW-03	02/23/10	28.00	631.47	--	16.83	--	614.64
MW-03	08/10/10	28.00	631.47	--	14.95	--	616.52
MW-03	02/22/11	28.00	631.47	--	16.39	--	615.08
MW-03	08/02/11	28.00	631.47	--	14.92	--	616.55
MW-03	10/30/17	28.00	631.47	--	13.19	--	618.28
MW-03	11/02/17	28.00	631.47	--	14.01	--	617.46
MW-03	11/17/17	28.00	631.47	--	14.09	--	617.38
MW-03	11/29/17	28.00	631.47	--	14.40	--	617.07
MW-03	01/23/18	28.00	631.47	--	16.18	--	615.29
MW-03	06/28/18	28.00	631.47	--	15.27	--	616.20
MW-04	06/08/06	30.35	632.89	--	13.54	--	619.35
MW-04	10/12/06	30.35	632.89	--	15.81	--	617.08
MW-04	10/25/06	30.35	632.89	--	15.41	--	617.48
MW-04	01/11/07	28.00	632.89	--	15.06	--	617.83
MW-04	02/01/07	28.00	632.89	--	15.84	--	617.05
MW-04	05/22/07	28.00	632.89	--	15.49	--	617.40
MW-04	08/09/07	28.00	632.89	--	16.27	--	616.62
MW-04	11/20/07	28.00	632.89	--	14.48	--	618.41
MW-04	02/19/08	28.00	632.89	--	16.41	--	616.48
MW-04	05/07/08	28.00	632.89	--	13.90	--	618.99
MW-04	08/19/08	28.00	632.89	--	15.59	--	617.30
MW-04	11/25/08	28.00	632.29	--	13.50	--	618.79
MW-04	02/18/09	28.00	632.29	--	15.74	--	616.55
MW-04	08/11/09	28.00	632.29	--	14.73	--	617.56
MW-04	02/23/10	28.00	632.29	--	16.02	--	616.27
MW-04	08/10/10	28.00	632.29	--	13.54	--	618.75
MW-04	02/22/11	28.00	632.29	--	15.48	--	616.81
MW-04	08/02/11	28.00	632.29	--	13.41	--	618.88
MW-04	10/30/17	28.00	632.29	FP	12.47	NM	619.82
MW-04	11/02/17	28.00	632.29	12.29	12.30	0.01	620.00
MW-04	11/03/17	28.00	632.29	12.33	12.33	Sheen	619.96
MW-04	11/17/17	28.00	632.29	--	12.41	--	619.88
MW-04	11/29/17	28.00	632.29	--	12.89	--	619.40
MW-04	01/23/18	28.00	632.29	--	15.16	--	617.13
MW-04	06/28/18	28.00	632.29	--	13.95	--	618.34

Table 1

**Fluid-Level Measurements
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Well Number	Date	Well Depth (b)	TOC Elevation (c)	Depth to Product	Depth to Water	Product Thickness	Corrected Water Elevation (d)
MW-05	06/08/06	29.45	633.19	--	15.35	--	617.84
MW-05	10/12/06	29.45	633.19	--	17.52	--	615.67
MW-05	10/25/06	29.45	633.19	--	17.16	--	616.03
MW-05	01/11/07	27.00	633.19	--	17.00	--	616.19
MW-05	02/01/07	27.00	633.19	--	17.75	--	615.44
MW-05	05/22/07	27.00	633.19	--	17.27	--	615.92
MW-05	08/09/07	27.00	633.19	--	17.91	--	615.28
MW-05	11/20/07	27.00	633.19	--	16.22	--	616.97
MW-05	02/19/08	27.00	633.19	--	18.14	--	615.05
MW-05	05/07/08	27.00	633.19	--	15.78	--	617.41
MW-05	08/19/08	27.00	633.19	--	17.29	--	615.90
MW-05	11/25/08	27.00	633.19	--	15.25	--	617.94
MW-05	02/18/09	27.00	633.19	--	17.27	--	615.92
MW-05	08/11/09	27.00	633.19	--	16.59	--	616.60
MW-05	02/23/10	27.00	633.19	--	17.50	--	615.69
MW-05	08/10/10	27.00	633.19	--	15.38	--	617.81
MW-05	02/22/11	27.00	633.19	--	17.07	--	616.12
MW-05	08/02/11	27.00	633.19	--	15.30	--	617.89
MW-05	10/30/17	27.00	633.19	--	14.24	--	618.95
MW-05	11/02/17	27.00	633.19	--	14.37	--	618.82
MW-05	11/17/17	27.00	633.19	--	14.51	--	618.68
MW-05	11/29/17	27.00	633.19	--	14.85	--	618.34
MW-05	01/23/18	27.00	633.19	--	NM	--	--
MW-05	06/28/18	27.00	633.19	--	NM	--	--
MW-06	06/08/06	29.55	632.57	--	15.10	--	617.47
MW-06	10/12/06	29.55	632.57	--	17.02	--	615.55
MW-06	10/25/06	29.55	632.57	--	16.67	--	615.90
MW-06	01/11/07	28.00	632.57	--	16.52	--	616.05
MW-06	02/01/07	28.00	632.57	--	17.68	--	614.89
MW-06	05/22/07	28.00	632.57	--	16.92	--	615.65
MW-06	08/09/07	28.00	632.57	--	17.57	--	615.00
MW-06	11/20/07	28.00	632.57	--	15.91	--	616.66
MW-06	02/19/08	28.00	632.57	--	17.41	--	615.16
MW-06	05/07/08	28.00	632.57	--	15.61	--	616.96
MW-06	08/19/08	28.00	632.57	--	16.64	--	615.93
MW-06	11/25/08	28.00	632.57	--	14.81	--	617.76
MW-06	02/18/09	28.00	632.57	--	16.74	--	615.83
MW-06	08/11/09	28.00	632.57	--	16.08	--	616.49
MW-06	02/23/10	28.00	632.57	--	17.20	--	615.37
MW-06	08/10/10	28.00	632.57	--	15.22	--	617.35
MW-06	02/22/11	28.00	632.57	--	16.56	--	616.01
MW-06	08/02/11	28.00	632.57	--	15.08	--	617.49
MW-06	10/30/17	28.00	632.57	--	13.85	--	618.72
MW-06	11/02/17	28.00	632.57	--	13.98	--	618.59
MW-06	11/17/17	28.00	632.57	--	14.08	--	618.49
MW-06	11/29/17	28.00	632.57	--	14.43	--	618.14
MW-06	01/23/18	28.00	632.57	--	16.39	--	616.18
MW-06	06/28/18	28.00	632.57	--	15.43	--	617.14

Table 1

**Fluid-Level Measurements
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Well Number	Date	Well Depth (b)	TOC Elevation (c)	Depth to Product	Depth to Water	Product Thickness	Corrected Water Elevation (d)
MW-07	01/11/07	28.00	628.59	--	13.73	--	614.86
MW-07	02/01/07	28.00	628.59	--	14.23	--	614.36
MW-07	05/22/07	28.00	628.59	--	13.96	--	614.63
MW-07	08/09/07	28.00	628.59	--	14.59	--	614.00
MW-07	11/20/07	28.00	628.59	--	13.02	--	615.57
MW-07	02/19/08	28.00	628.59	--	14.51	--	614.08
MW-07	05/07/08	28.00	628.59	--	12.73	--	615.86
MW-07	08/19/08	28.00	628.59	--	13.87	--	614.72
MW-07	11/25/08	28.00	628.59	--	12.21	--	616.38
MW-07	02/18/09	28.00	628.59	--	13.85	--	614.74
MW-07	08/11/09	28.00	628.59	--	13.47	--	615.12
MW-07	02/23/10	28.00	628.59	--	14.13	--	614.46
MW-07	08/10/10	28.00	628.59	--	12.30	--	616.29
MW-07	02/22/11	28.00	628.59	--	13.68	--	614.91
MW-07	08/02/11	28.00	628.59	--	12.37	--	616.22
MW-07	10/30/17	28.00	628.59	--	11.64	--	616.95
MW-07	11/02/17	28.00	628.59	--	11.76	--	616.83
MW-07	11/17/17	28.00	628.59	--	11.84	--	616.75
MW-07	11/29/17	28.00	628.59	--	12.13	--	616.46
MW-07	01/23/18	28.00	628.59	--	13.86	--	614.73
MW-07	06/28/18	28.00	628.59	--	12.96	--	615.63
MW-08	01/11/07	29.00	629.41	--	13.82	--	615.59
MW-08	02/01/07	29.00	629.41	--	14.45	--	614.96
MW-08	05/22/07	29.00	629.41	--	14.18	--	615.23
MW-08	08/09/07	29.00	629.41	--	14.88	--	614.53
MW-08	11/20/07	29.00	629.41	--	13.96	--	615.45
MW-08	02/19/08	29.00	629.41	--	14.70	--	614.71
MW-08	05/07/08	29.00	629.41	--	12.83	--	616.58
MW-08	08/19/08	29.00	629.41	--	14.02	--	615.39
MW-08	11/25/08	29.00	629.41	--	12.31	--	617.10
MW-08	02/18/09	29.00	629.41	--	14.02	--	615.39
MW-08	08/11/09	29.00	629.41	--	13.61	--	615.80
MW-08	02/23/10	29.00	629.41	--	14.28	--	615.13
MW-08	08/10/10	29.00	629.41	--	12.45	--	616.96
MW-08	02/22/11	29.00	629.41	--	13.74	--	615.67
MW-08	08/02/11	29.00	629.41	--	12.37	--	617.04
MW-08	10/30/17	29.00	629.41	--	11.22	--	618.19
MW-08	11/03/17	29.00	629.41	--	11.47	--	617.94
MW-08	11/17/17	29.00	629.41	--	11.54	--	617.87
MW-08	11/29/17	29.00	629.41	--	11.84	--	617.57
MW-08	01/23/18	29.00	629.41	--	NM	--	--
MW-08	06/28/18	29.00	629.41	--	NM	--	--

Table 1

**Fluid-Level Measurements
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Well Number	Date	Well Depth (b)	TOC Elevation (c)	Depth to Product	Depth to Water	Product Thickness	Corrected Water Elevation (d)
PZ-01	06/08/06	47.00	632.50	--	15.25	--	617.25
PZ-01	10/12/06	47.00	632.50	--	NM	--	--
PZ-01	10/25/06	47.00	632.50	--	16.78	--	615.72
PZ-01	01/11/07	45.00	632.50	--	16.67	--	615.83
PZ-01	02/01/07	45.00	632.50	--	17.21	--	615.29
PZ-01	05/22/07	45.00	632.50	--	16.87	--	615.63
PZ-01	08/09/07	45.00	632.50	--	17.45	--	615.05
PZ-01	11/20/07	45.00	632.50	--	15.92	--	616.58
PZ-01	02/19/08	45.00	632.50	--	17.41	--	615.09
PZ-01	05/07/08	45.00	632.50	--	15.54	--	616.96
PZ-01	08/19/08	45.00	632.50	--	16.61	--	615.89
PZ-01	11/25/08	45.00	632.50	--	14.96	--	617.54
PZ-01	02/18/09	45.00	632.50	--	16.97	--	615.53
PZ-01	08/11/09	45.00	632.50	--	16.24	--	616.26
PZ-01	02/23/10	45.00	632.50	--	16.99	--	615.51
PZ-01	08/10/10	45.00	632.50	--	15.12	--	617.38
PZ-01	02/22/11	45.00	632.50	--	16.53	--	615.97
PZ-01	08/02/11	45.00	632.50	--	15.02	--	617.48
PZ-01	10/30/17	45.00	632.50	--	14.04	--	618.46
PZ-01	11/02/17	45.00	632.50	--	14.16	--	618.34
PZ-01	11/17/17	45.00	632.50	--	14.27	--	618.23
PZ-01	11/29/17	45.00	632.50	--	14.61	--	617.89
PZ-01	01/23/18	45.00	632.50	--	16.37	--	616.13
PZ-01	06/28/18	45.00	632.50	--	15.46	--	617.04

- a/ All measurements are in feet.
- b/ Well depth is measured from the top of casing (TOC).
- c/ TOC elevation is in feet above the National Geodetic Vertical Datum. Elevations for MW-2, MW-3 and MW-4 were re-surveyed in January 2009 after the top of the well casings were removed to accommodate the excavation.
- d/ The corrected water level elevation is calculated based on a free-phase hydrocarbon specific gravity of 0.79.
 NM = not measured.
 FP = free product observed.
 -- = no product.

Table 2
Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
MW-1	06/28/18	99	1	12	3.5	0.47 J	<0.30	1.9	<0.23
MW-2	06/28/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.24
MW-3	06/28/18	190	2.4	28	2.3	1.1	0.82	8.1	< 0.23
MW-4	06/28/18	1,200	44	<i>260</i>	47	50	29	<i>50</i>	2.2
MW-5	06/28/18	-	-	-	-	-	-	-	-
MW-6	06/28/18	1,500	18	<i>350</i>	31	4.9 J	8.7	110	<0.23
MW-6 Dup	06/28/18	1,500	28	<i>360</i>	36	8.1	11	110	-
MW-7	06/28/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	0.61	< 0.23
MW-8	06/28/18	-	-	-	-	-	-	-	-
PZ-1	06/28/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.24
Equipment Blank	06/28/18	< 0.36	10	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	-

a/ Results are in micrograms per liter (ug/L)

PVOCs = petroleum volatile organic compounds.

1,2,4-TMB = 1,2,4-Trimethylbenzene.

1,3,5-TMB = 1,3,5-Trimethylbenzene.

WAC NR 140 ES = Wisconsin Administrative Code Chapter NR 140, Enforcement Standards, revised February 2017.

WAC NR 140 PAL = Wisconsin Administrative Code Chapter NR 140, Preventive Action Limits, revised February 2017.

* = Wisconsin NR 140 standards are for the combined concentration of 1,2,4- and 1,3,5- TMB.

< = Not detected above laboratory method detection limit.

- = constituent not analyzed.

Bold text indicates an exceedance of the WAC NR 140 ES.

Italicized text indicates an exceedance of the WAC NR 140 PAL.

Table 3

Historical Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
MW-1	06/08/06	360	1.9	89	14	1.4	1.0	<0.50	2.1
MW-1	10/25/06	1,100	37	140	89	15	7.9	<0.23	4.3
MW-1	02/01/07	780	3.8	100	25	7.1 J	2.9 J	<2.3	2.8
MW-1	05/22/07	730	8.2	100	21	4.8	0.70	<0.23	3.2
MW-1	08/09/07	760	4.1	98	19	3.9 J	<1.9	<2.3	10
MW-1	11/20/07	840	4.4	110	20	5.5 J	<1.9	<2.3	3.0
MW-1	02/19/08	750	2.3 J	87	7.6 J	3.7 J	<1.9	<2.3	2.5
MW-1	05/07/08	690	5.4	91	18.0	6.5 J	<1.9	<2.3	2.8
MW-1	08/19/08	680	<2.5	65	6.9 J	5.6 J	<1.9	<2.3	1.7
MW-1	11/25/08	570	3.1	48	9.4	5.8	0.83	<0.23	1.3 J
MW-1	02/18/09	730	2.4 J	43	11.0	5.0	1.0 J	<1.2	1.2 J
MW-1 Dup	02/18/09	700	<1.2	40	10.0	4.6	1.0 J	<1.2	1.0 J
MW-1	08/11/09	540	1.2 J	18	5.0 J	5.9	1.8 J	<1.2	<0.40
MW-1	02/23/10	510	<2.3	16	<3.9	<2.5	<1.9	<2.3	<0.40
MW-1	08/10/10	510	<2.0	19	5.3 J	2.2 J	<1.5	<1.8	<0.40
MW-1	02/22/11	370	<0.25	17	3.1 Ja	0.99 Ja	0.37 Ja	<0.23	0.105 J
MW-1	08/02/11	380	1.4 Ja	27	10.0	NA	NA	<0.23	0.0895 J
MW-1 Dup	08/02/11	390	1.5 Ja	27	10.0	NA	NA	NA	NA
MW-1	10/30/17	41	< 0.33	1.5	< 0.58	< 0.30	< 0.30	1.0	< 0.23
MW-1	01/23/18	170	2.8	22	19	2.0	3.00	2.3	0.32 J
MW-1	06/28/18	99	1	12	3.5	0.47 J	<0.30	1.9	<0.23
MW-2	06/08/06	<0.20	<0.20	<0.50	1.6 J	0.97	0.55 J	<0.50	<0.25
MW-2	10/25/06	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	02/01/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.41
MW-2	05/22/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	08/09/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	1.5
MW-2	11/20/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2 Dup	11/20/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	02/19/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<1.0
MW-2	05/07/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2 Dup	05/07/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	08/19/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	11/25/08	0.25 J	<0.25	0.91	1.9	3.0	1.2	<0.23	<0.91
MW-2	02/18/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	08/11/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	02/23/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	08/10/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-2	02/22/11	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.0329
MW-2	08/02/11	<0.25	<0.25	<0.22	<0.39	NA	NA	<0.23	<0.0460
MW-2	10/30/17	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.23
MW-2	01/23/18	< 0.36	< 0.33	< 0.37	< 0.58	0.42 J	< 0.30	0.43 J	< 0.23
MW-2	06/28/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.24

Table 3

Historical Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
MW-3	06/08/06	460	26	160	110	49	23	1.9	10
MW-3 Dup	06/08/06	450	26	150	99	43	20	1.6 J	8.9
MW-3	10/25/06	250	6.6	67	120	160	61	<8.4 RL1	46
MW-3 Dup	10/25/06	260	8.7	99	170	240	88	<11 RL1	9.2
MW-3	02/01/07	470	<8.6	110	210	400	150	<2.3	24
MW-3	05/22/07	590	<1.1	72	120	150	62	<2.3	12
MW-3	08/09/07	160	1.3 J	22	28	46	23	<2.3	5
MW-3 Dup	08/09/07	160	1.3 J	26	32	52	26	<2.3	3.7
MW-3	11/20/07	350 P	2.6 P	82 P	20 P	29 P	13 P	<0.46 P	1.4
MW-3	02/19/08	110	0.54 J	12	10	23	9.9	<0.46	3.4
MW-3 Dup	02/19/08	100	0.60 J	12	11	23	10	<0.46	2.8
MW-3	05/07/08	260	5.5	100	49	120	40	<0.92	7.5
MW-3	08/19/08	330	3.4 J	70	32	39	10	<1.2	3.2
MW-3 Dup	08/19/08	330	3.0 J	68	29	34	8.1	<2.3	3.7
MW-3	11/25/08	260	3.1 J	81	22	48	16	<0.92	0.55 J
MW-3	02/18/09	100	0.82 J	11	9.6	22	6.5	<0.23	0.99 J
MW-3	08/11/09	290	3.9	66	40	57	15	<0.23	2.7
MW-3	02/23/10	59	<0.25	7.1	7	34	7.0	<0.23	0.73 J
MW-3	08/10/10	390	2.9	120	27	28	<0.19	<0.23	<0.80
MW-3	02/22/11	200	1.2 J	20	11 J	27	<0.76	<0.92	0.585
MW-3	08/02/11	420	4.3	90	10	NA	NA	<0.23	0.365
MW-3	10/30/17	23	0.36 J	3.6	0.90 J	0.89	0.45 J	2.9	< 0.23
MW-3	01/23/18	210	3.1	18	3	0.47 J	0.49 J	7.3	< 0.23
MW-3	06/28/18	190	2.4	28	2.3	1.1	0.82	8.1	< 0.23
MW-4	06/08/06	380	53	130	70	51	17	<0.50	27
MW-4	10/25/06	900	76	320	120	91	51	<2.3	46
MW-4	02/01/07	830	62	260	82	62	36	<1.2	36
MW-4 Dup	02/01/07	820	60	260	81	60	35	<1.2	39
MW-4	05/22/07	940	60	300	82	92	52	<2.3	38
MW-4	08/09/07	910	71	310	130	200	76	<2.3	71
MW-4	11/20/07	1,000	62	310	76	53	45	<2.3	34
MW-4	02/19/08	1,000	60	320	85	78	59	<4.6	34
MW-4	05/07/08	1,100	71	390	160	350	130	<2.3	30
MW-4	08/19/08	1,000	63	350	180	360	120	<4.6	26
MW-4	11/25/08	1,100	110	470	300	580	180	<2.3	73
MW-4 Dup	11/25/08	1,100	83	370	200	380	120	<4.6	56
MW-4	02/18/09	1,200	74	370	160	300	100	<2.3	37
MW-4	08/11/09	1,200	73	360	140	310	110	<2.3	19
MW-4	02/23/10	1,300	55	370	170	350	110	<4.6	53
MW-4 Dup	02/23/10	1,300	54	370	160	370	120	<4.6	-
MW-4	08/10/10	1,300	59	440	210	630	190	<4.6	81
MW-4 Dup	08/10/10	1,200	46	280	100 J	250	70	<4.6	44
MW-4	02/22/11	1,500	70	500	210	630	190	<4.6	19.7

Table 3

Historical Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
MW-4 Dup	02/22/11	1,500	68	490	220	660	200	<4.6	-
MW-4	08/02/11	1,400	70	430	150	NA	NA	<4.6	4.32
MW-4	11/03/17	890	23	150	33	70	40	53	8.3
MW-4	01/23/18	1,400	52	280	84	79	40	76	2.5
MW-4 Dup	01/23/18	1,400	54	280	93	97	49	59	-
MW-4	06/28/18	1,200	44	260	47	50	29	50	2.2
MW-5	06/08/06	9.1	0.22 J	130	100	79	33	<0.50	28
MW-5	10/26/06	5.1	0.11 J	32	3.1	2.9	<0.19	<1.3 RL1	1.4
MW-5	02/01/07	3.5	<0.11	3.0	<0.39	0.52 J	<0.19	0.74 J	<0.41
MW-5	05/22/07	3.5	0.12 J	0.76	<0.39	0.59 J	<0.19	0.93	<0.40
MW-5	08/09/07	2.2	<0.11	<0.22	<0.39	<0.25	<0.19	0.68 J	<0.40
MW-5	11/20/07	2.1	<0.11	0.35 J	<0.39	<0.25	<0.19	<0.23	<0.40
MW-5	02/19/08	1.5	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-5	05/07/08	1.4	<0.11	<0.22	<0.39	<0.25	<0.19	0.56 J	<0.40
MW-5	08/19/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	0.64 J	<0.40
MW-5	11/25/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	0.49 J	<0.41
MW-5	02/18/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	0.60 J	<0.40
MW-5	08/11/09	0.028 J	<0.25	<0.22	<0.39	<0.25	<0.19	0.58 J	<0.40
MW-5	02/23/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	0.55 J	<0.40
MW-5	08/10/10	0.29 J	<0.25	<0.22	<0.39	<0.25	<0.19	0.36 J	<0.40
MW-5	02/22/11	0.34 Ja, P	<0.25 P	<0.22 P	<0.39 P	<0.25 P	<0.19 P	0.80 Ja, P	<0.0329
MW-5	08/02/11	0.98 Ja	<0.25	<0.22	<0.39	--	--	1.9 Ja	<0.0460
MW-5	10/30/17	1.1	<0.33	<0.37	<0.58	<0.30	<0.30	2.0	<0.23
MW-5	01/23/18	-	-	-	-	-	-	-	-
MW-5	06/28/18	-	-	-	-	-	-	-	-
MW-6	06/08/06	5,000	48	690	280	110	84	<0.50	44
MW-6	10/26/06	3,200	32	460	180	40	63	<9.2	38
MW-6	02/01/07	3,200	35	570	180	36 J	80	<12	45
MW-6	05/22/07	2,500	19	410	86	19 J	52	<9.2	21
MW-6	08/09/07	2,400	19	480	94	88	110	<9.2	25
MW-6	11/20/07	2,500	19	430	73	18 J	57	<9.2	12
MW-6	02/19/08	1,700	10 J	350	36 J	22 J	46	<9.2	24
MW-6	05/07/08	2,100	22	500	80	19 J	63	<9.2	22
MW-6	08/19/08	1,900	15 J	410	110	34	66	<9.2	23
MW-6	11/25/08	1,900	17	460	120	26	58	<4.6	45
MW-6	02/18/09	1,500	11 J	340	65	32	62	<4.6	13
MW-6	08/11/09	1,900	24	540	200	47	81	<4.6	29
MW-6	02/23/10	1,500	7.8 J	410	100	36	78	<4.6	13
MW-6	08/10/10	1,800	11 J	650	250	90	170	<4.6	46
MW-6	02/22/11	1,700	9.2 J	560	130	49	83	<4.6	8.96
MW-6	08/02/11	1,700	20 Ja	570	180	NA	NA	<4.6	11.5
MW-6	10/30/17	1,200	17	260	13 J	3.8 J	5.5	68	2.7

Table 3

Historical Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
MW-6 Dup	10/30/17	1,200	16	250	12 J	4.0 J	5.3	60	-
MW-6	01/23/18	1,500	21	270	20	7.1	10	48	0.8
MW-6	06/28/18	1,500	18	350	31	4.9 J	8.7	110	<0.23
MW-6 Dup	06/28/18	1,500	28	360	36	8.1	11	110	-
MW-7	02/01/07	<0.20	<0.20	<0.50	<0.50	<0.20	<0.20	<0.50	<0.25
MW-7	05/22/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	0.34 J	<0.40
MW-7 Dup	05/22/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	0.33 J	<0.40
MW-7	08/09/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<1.0
MW-7	11/20/07	<0.25	<0.11	<0.22	<0.39	0.59 J	<0.19	<0.23	<0.40
MW-7	02/19/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	05/07/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	08/19/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	11/25/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	02/18/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	08/11/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7 Dup	08/11/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	02/23/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	08/10/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-7	02/22/11	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.0329
MW-7	08/02/11	0.37 Ja	<0.25	<0.22	<0.39	NA	NA	<0.23	<0.0460
MW-7	10/30/17	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	1.0	< 0.23
MW-7	01/23/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	0.5	< 0.23
MW-7	06/28/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	0.61	< 0.23
MW-8	02/01/07	<0.20	<0.20	<0.50	<0.50	<0.20	<0.20	<0.50	<0.25
MW-8	05/22/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	08/09/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	11/20/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	02/19/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	05/07/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	08/19/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	11/25/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	02/18/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	08/11/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	02/23/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	08/10/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
MW-8	02/22/11	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.0329
MW-8	08/02/11	<0.25	<0.25	<0.22	<0.39	-	-	<0.23	<0.0460
MW-8	10/30/17	<0.36	<0.33	<0.37	<0.58	<0.30	<0.30	<0.24	<0.23
MW-8	01/23/18	-	-	-	-	-	-	-	-
MW-8	06/28/18	-	-	-	-	-	-	-	-
PZ-1	06/08/06	1.3	0.36 J	0.97 J	1.8	0.49 J	0.36 J	<0.50	<0.25

Table 3

Historical Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
PZ-1	10/26/06	<0.25	0.12 J	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	02/01/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.41
PZ-1	05/22/07	<0.25	0.11 J	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	08/09/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	11/20/07	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	02/19/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	05/07/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	08/19/08	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	11/25/08	<0.25	0.84	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	02/18/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	08/11/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<1.0
PZ-1	02/23/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<1.0
PZ-1	08/10/10	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.40
PZ-1	02/22/11	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	<0.0329
PZ-1	08/02/11	<0.25	<0.25	<0.22	<0.39	NA	NA	<0.23	<0.0460
PZ-1	10/30/17	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.23
PZ-1	01/23/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.24
PZ-1	06/28/18	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	< 0.24
Equipment Blank	06/08/06	<0.20	<0.20	<0.50	<0.50	<0.20	<0.20	<0.50	<0.25
Field Blank	10/25/06	<0.25	0.15 J	<0.22	<0.39	<0.25	<0.19	-	-
Equipment Blank	02/01/07	<0.25	0.11 J	<0.22	<0.39	<0.25	<0.19	-	-
Equipment Blank	05/22/07	<0.25	9.0	0.48 J	0.80 J	<0.25	<0.19	<0.23	<0.40
Equipment Blank	08/09/07	<0.25	0.82	<0.22	0.45 J	<0.25	<0.19	<0.23	<0.40
Equipment Blank	11/20/07	<0.25	0.27 J	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	02/19/08	<0.25	0.41	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	05/07/08	<0.25	<0.11	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	08/19/08	<0.25	0.3	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	02/18/09	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	08/11/09	0.25 CF6, J	0.81 CF6, J	0.30 CF6, J	0.58 CF6, J	<0.25	<0.19	<0.23	-
Equipment Blank	08/10/10	0.30 J	2.4	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	02/22/11	<0.25	<0.25	<0.22	<0.39	<0.25	<0.19	<0.23	-
Equipment Blank	08/02/11	<0.25	0.52 Ja	0.27 Ja	0.52 Ja	NA	NA	NA	-
Trip Blank	10/30/17	< 0.36	< 0.33	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	-
Trip Blank	01/23/18	< 0.36	< 0.33	< 0.37	< 0.58	-	-	-	-
Equipment Blank	06/28/18	< 0.36	10	< 0.37	< 0.58	< 0.30	< 0.30	< 0.24	-
SB-1	08/26/03	5	<2	4	23	26	11	7	10
SB-2	08/26/03	<2	<2	<2	<4	<3	<2	<2	<5
SB-3	08/26/03	2	<2	<2	<4	<3	<2	<2	<5
SB-4	08/27/03	<2	<2	<2	<4	<3	<2	<2	<5
SB-6**	08/27/03	1,200	21	150	252	89	49	40	30
SB-6***	08/27/03	7	3	41	104	69	45	2	28
SB-9	08/28/03	150	12	68	239	110	49	4	27

Table 3

**Historical Groundwater Results - PVOCs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Sampling Location	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Methyl tert-butyl ether	Naphthalene
WAC NR 140 ES		5	800	700	2,000	480 *	480 *	60	100
WAC NR 140 PAL		0.5	160	140	400	96 *	96 *	12	10
SB-10	08/28/03	430	<2	<2	2	<3	<2	<2	<5
SB-21	01/10/07	<0.25	0.19 J	<0.22	<0.39	<0.25	<0.19	<0.23	<0.42
SB-22	01/10/07	3.6	0.20 J	1.7	2.0	0.82 J	0.29 J	<0.23	-

a/ Results are in micrograms per liter (ug/L)

PVOCs = petroleum volatile organic compounds.

1,2,4-TMB = 1,2,4-Trimethylbenzene.

1,3,5-TMB = 1,3,5-Trimethylbenzene.

WAC NR 140 ES = Wisconsin Administrative Code Chapter NR 140, Enforcement Standards, revised February 2017.

WAC NR 140 PAL = Wisconsin Administrative Code Chapter NR 140, Preventive Action Limits, revised February 2017.

* = Wisconsin NR 140 standards are for the combined concentration of 1,2,4- and 1,3,5- TMB.

< = Not detected above laboratory method detection limit.

- = constituent not analyzed.

Bold text indicates an exceedance of the WAC NR 140 ES.

Italicized text indicates an exceedance of the WAC NR 140 PAL.

Table 4

Groundwater Results - PAHs
 Superior Station
 Magellan Pipeline Company, L.P.
 Superior, Wisconsin (a)

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
MW-1	06/28/18	< 0.23	< 0.20	< 0.25	< 0.042	< 0.061	< 0.048	< 0.074	< 0.28	< 0.051	< 0.038	< 0.34	< 0.18	< 0.056	< 0.23	< 0.049	< 0.23	< 0.23	< 0.32
MW-2	06/28/18	< 0.24	< 0.21	< 0.26	< 0.045	< 0.064	< 0.051	< 0.078	< 0.30	< 0.054	< 0.040	< 0.36	< 0.19	< 0.059	< 0.24	< 0.051	< 0.24	< 0.24	< 0.34
MW-3	06/28/18	< 0.23	< 0.20	< 0.25	< 0.043	< 0.061	< 0.048	< 0.075	< 0.28	< 0.051	< 0.038	< 0.34	< 0.18	< 0.056	0.37 J	< 0.049	< 0.23	< 0.23	< 0.32
MW-4	06/28/18	3.6	0.78	0.32 J	< 0.043	< 0.062	< 0.049	< 0.076	< 0.29	< 0.052	< 0.039	< 0.35	4	< 0.057	43	0.47 J	2.2	5.9	< 0.33
MW-5	06/28/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	06/28/18	0.50 J	< 0.20	< 0.25	< 0.043	< 0.061	< 0.048	< 0.074	< 0.28	< 0.051	< 0.038	< 0.34	0.55 J	< 0.056	4.8	< 0.049	< 0.23	0.78	< 0.32
MW-7	06/28/18	< 0.23	< 0.20	< 0.25	0.054 J	< 0.060	< 0.048	< 0.074	< 0.28	< 0.051	< 0.038	< 0.34	0.18 J	< 0.056	< 0.22	< 0.049	< 0.23	0.23 J	< 0.32
MW-8	06/28/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PZ-1	06/28/18	< 0.24	< 0.20	< 0.26	< 0.043	< 0.062	< 0.049	< 0.076	< 0.29	< 0.052	< 0.039	< 0.35	< 0.19	< 0.057	< 0.23	< 0.050	< 0.24	< 0.23	< 0.33

a/ Results are in micrograms per liter (ug/L)

PAH = Polynuclear aromatic hydrocarbons.

WAC NR 140 ES = Wisconsin Administrative Code Chapter NR 140, Enforcement Standards, revised February 2017.

WAC NR 140 PAL = Wisconsin Administrative Code Chapter NR 140, Preventive Action Limits, revised February 2017.

NSS = No standard set.

< = Not detected above laboratory method detection limit.

L = Laboratory control sample and/or laboratory control duplicate was above the acceptance limits.

- = Constituent was not analyzed.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Bold text indicates an exceedance of the WAC NR 140 ES.

Italicized text indicates an exceedance of the WAC NR 140 PAL.

Table 5

Historical Groundwater Results - PAHs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
MW-1	06/08/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	<0.32	<0.31	<0.40	<0.030	<0.044
MW-1	10/25/06	<0.34	<0.70	<0.039	<0.045	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	<0.083	<0.063	<0.063	<0.33	0.76 J	4.3	<0.031	<0.045
MW-1	02/01/07	<0.34	<0.70	<0.039	<0.045	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	<0.083	<0.063	<0.063	<0.33	<0.42	2.8	<0.031	<0.045
MW-1	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	3.2	<0.030	<0.044
MW-1	08/09/07	1.2	<0.69	0.72	0.14 J	<0.098	<0.049	0.058 J	<0.12	0.067 J	<0.13	1.0	2.1	<0.062	3.9	7.9	10	2.2	0.28
MW-1	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	3.0	<0.030	<0.044
MW-1	02/19/08	<0.33	<0.69	0.044 J	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	0.27	0.15 J	<0.062	<0.32	1.2 J	2.5	0.69	0.15
MW-1	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	2.8	<0.030	<0.044
MW-1	08/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081 L	<0.062	<0.062	<0.32	<0.31	1.7	<0.030	<0.044
MW-1	11/25/08	<0.82	<1.7	<0.095	<0.11	<0.24	<0.12	<0.080	<0.30	<0.10	<0.32	<0.20	<0.16	<0.16	<0.80	<0.78	1.3 J	<0.075	<0.11
MW-1	02/18/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	1.2 J	<0.030	<0.044
MW-1	08/11/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-1	02/23/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-1	08/10/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-1	02/22/11	<0.0157	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	0.105 J	<0.00357	<0.0121
MW-1	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	<0.00800	<0.00800	<0.0100	<0.0115 J	<0.0160	<0.00600	<0.0100	<0.0100	0.0895 J	<0.00500	<0.0170
MW-1	10/30/17	< 0.23	< 0.20	< 0.25	< 0.042	< 0.060	< 0.047	< 0.073	< 0.28	< 0.050	< 0.038	< 0.34	< 0.18	< 0.055	< 0.22	< 0.048	< 0.23	< 0.22	< 0.32
MW-1	01/23/18	< 0.23	< 0.20	< 0.25	0.046 J	<0.059	<0.047	< 0.073	< 0.28	< 0.050	< 0.037	< 0.33	< 0.18	< 0.055	< 0.22	0.048 J	0.32 J	< 0.22	< 0.31
MW-1	06/28/18	< 0.23	< 0.20	< 0.25	< 0.042	< 0.061	< 0.048	< 0.074	< 0.28	< 0.051	< 0.038	< 0.34	< 0.18	< 0.056	< 0.23	< 0.049	< 0.23	< 0.23	< 0.32
MW-2	06/08/06	<0.34	<0.70	<0.039	<0.045	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	<0.083	<0.063	<0.063	<0.33	<0.32	<0.41	<0.031	<0.045
MW-2	10/25/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	02/01/07	<0.34	<0.70	<0.039	0.049 J	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	0.17 J	<0.063	<0.063	<0.33	<0.32	<0.41	0.13	0.085
MW-2	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	08/09/07	0.76 J	<0.69	0.31	0.055 J	<0.098	<0.049	0.041 J	<0.12	<0.041	<0.13	0.43	0.70	<0.062	2.0	1.3	1.5	1.0	0.091 J
MW-2	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2 DUP	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	02/19/08	<0.82	<1.7	<0.095	<0.11	<0.24	<0.12	<0.080	<0.30	<0.10	<0.32	<0.20	<0.16	<0.16	<0.80	<0.78	<1.0	<0.075	<0.11
MW-2	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2 DUP	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	08/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081 L	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	11/25/08	<0.75	<1.6	<0.086	<0.10	<0.22	<0.11	<0.073	<0.27	<0.093	<0.30	<0.18	<0.14	<0.14	<0.73	<0.70	<0.91	<0.068	<0.10

Table 5

Historical Groundwater Results - PAHs
 Superior Station
 Magellan Pipeline Company, L.P.
 Superior, Wisconsin (a)

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
MW-2	02/18/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	08/11/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	02/23/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	08/10/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-2	02/22/11	<0.0157	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	<0.0329	<0.00357	<0.0121
MW-2	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	<0.00800	<0.00800	<0.0100	<0.0100	<0.0160	<0.00600	<0.100	<0.100	<0.0460	<0.00500	<0.0170
MW-2	10/30/17	< 0.23	< 0.20	< 0.25	< 0.042	< 0.060	< 0.047	< 0.073	< 0.28	< 0.050	< 0.038	< 0.34	< 0.18	< 0.055	< 0.22	< 0.048	< 0.23	< 0.22	< 0.32
MW-2	01/23/18	< 0.23	< 0.20	< 0.25	< 0.042	< 0.060	< 0.047	< 0.073	< 0.28	< 0.051	< 0.038	< 0.34	< 0.18	< 0.055	< 0.22	< 0.048	< 0.23	< 0.22	< 0.32
MW-2	06/28/18	< 0.24	< 0.21	< 0.26	< 0.045	< 0.064	< 0.051	< 0.078	< 0.30	< 0.054	< 0.040	< 0.36	< 0.19	< 0.059	< 0.24	< 0.051	< 0.24	< 0.24	< 0.34
MW-3	06/08/06	<0.33	<0.70	<0.038	0.13 J	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	0.23 J	1.4	<0.063	11	13	6.6	0.93	0.10 J
MW-3 DUP	06/08/06	<0.92	< 1.9	0.25 J	<0.12	<0.27	<0.14	<0.089	<0.33	<0.11	<0.36	0.65 J	1.0	<0.17	6.6	7.7	3.7 J	0.71	2.2
MW-3	10/25/06	<0.86	<1.8	0.14 J	0.29 J	<0.25	<0.13	<0.083	<0.31	<0.11	<0.34	1.6	1.8	<0.16	13	15	7.0	1.6	0.76
MW-3 DUP	10/25/06	0.60 J	<0.70	0.20	0.42	<0.099	<0.049	0.041 J	<0.12	0.059	<0.13	2.8	2.4	<0.063	17	20	9.2	2.4	2.8
MW-3	02/01/07	1.6	<0.70	2.8	0.39	0.18 J	0.11 J	0.25	<0.12	0.50	<0.13	9.3	6.8	0.11 J	50	63	24	8.7	6.0
MW-3	05/22/07	0.74 J	<0.69	1.1	1.0	<0.098	<0.049	0.080 J	<0.12	0.32	<0.13	6.1	2.7	<0.062	20	20	12	3.0	5.8
MW-3	08/09/07	0.75 J	<0.69	0.096 J	<0.044	<0.098	<0.049	0.060 J	<0.12	<0.041	<0.13	2.2	2.0	<0.062	12	12	5.0	2.0	3.8
MW-3 DUP	08/09/07	0.54 J	<0.69	0.44	0.050 J	<0.098	<0.049	0.033 J	<0.12	0.078 J	<0.13	2.3	1.5	<0.062	8.8	8.8	3.7	1.4	2.4
MW-3	11/20/07	0.33 J	<0.69	0.098 J	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	1.0 J	<0.062	5.0	2.8	1.4	0.83	<0.044
MW-3	02/19/08	0.64 J	<0.69	1.3	2.2	<0.098	0.075 J	0.13	<0.12	0.54	<0.13	9.1	2.2	<0.062	10	11	3.4	2.6	7.6
MW-3 DUP	02/19/08	0.52 J	<0.69	0.99	1.4	<0.098	0.072 J	0.094 J	<0.12	0.36	<0.13	6.7	2.0	<0.062	8.3	9.6	2.8	1.9	5.3
MW-3	05/07/08	0.76 J	<0.69	0.66	1.9	0.22 J	0.084 J	0.19	0.12 J	0.38	<0.13	11	2.8	0.089 J	18	18	7.5	3.3	14
MW-3	08/19/08	0.41 J	<0.69	0.081 J	0.16	<0.098	<0.049	<0.032	<0.12	0.059 J	<0.13	1.3 L1	1.1 J	<0.062	7.4	3.9	3.2	0.86	1.1
MW-3 DUP	08/19/08	0.45 J	<0.69	0.12 J	0.27	<0.098	<0.049	<0.032	<0.12	0.12 J	<0.13	1.9 L1	1.3	<0.062	8.9	5.4	3.7	1.2	2.2
MW-3	11/25/08	0.34 J	<0.69	0.12 J	0.15	<0.098	<0.049	<0.032	<0.12	0.16	<0.13	1.8	0.54 J	<0.062	2.1	1.5	0.55 J	0.42	0.40
MW-3	02/18/09	<0.33	<0.69	0.29	<0.044	<0.098	<0.049	<0.032	<0.12	0.17	<0.13	1.4	0.55 J	<0.062	2.8	3.0	0.99 J	0.66	2.0
MW-3	08/11/09	<0.33	<0.69	0.66	0.22	<0.098	0.061 J	0.049 J	<0.12	0.091 J	<0.13	3.4	1.4	<0.062	8.3	8.1	2.7	2.1	1.1
MW-3	02/23/10	<0.33	<0.69	0.80	<0.044	<0.098	<0.049	<0.032	<0.12	0.11 J	<0.13	3.5	1.1	<0.062	5.2	5.2	0.73 J	2.4	0.94
MW-3	08/10/10	<0.66	<1.4	0.71	2.5	0.32 J	<0.098	0.32	0.27 J	0.29	<0.26	6.9	3.0	0.040	9.0	3.0	<0.80	3.0	0.67
MW-3	02/22/11	<0.0157	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	1.00	<0.00429	4.52	2.58	0.585	1.77	<0.0121
MW-3	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	0.0292 J	<0.00800	<0.0100	<0.0100	0.404	0.0303 J	4.44	<0.100	0.365	0.676	<0.0170
MW-3	10/30/17	< 0.23	< 0.20	< 0.25	< 0.042	< 0.059	< 0.047	< 0.073	< 0.28	< 0.050	< 0.037	< 0.33	< 0.18	< 0.055	0.47 J	0.10 J	< 0.23	< 0.22	< 0.31
MW-3	01/23/18	< 0.23	< 0.20	< 0.25	< 0.043	< 0.061	< 0.048	< 0.075	< 0.28	< 0.051	< 0.038	< 0.34	0.28 J	< 0.057	0.78 J	0.051 J	< 0.23	0.26 J	< 0.32
MW-3	06/28/18	< 0.23	< 0.20	< 0.25	< 0.043	< 0.061	< 0.048	< 0.075	< 0.28	< 0.051	< 0.038	< 0.34	< 0.18	< 0.056	0.37 J	< 0.049	< 0.23	< 0.23	< 0.32
MW-4	06/08/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	0.45	0.71	<0.063	14	6.1	8.3	0.39	0.81

Table 5

**Historical Groundwater Results - PAHs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
MW-4	10/25/06	1.9	<0.69	1.6	0.071 J	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	1.3	5.3	<0.062	43	21	46	3.2	0.89
MW-4	02/01/07	1.8	<0.70	0.66	0.082	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	2.3	4.8	<0.063	32	13	36	3.1	0.95
MW-4 DUP	02/01/07	1.7	7.2	0.60	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	2.2	4.7	<0.063	35	13	39	3.2	0.83
MW-4	05/22/07	1.9	<0.69	0.61	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	2.5	4.3	<0.062	36	16	38	3.9	0.82
MW-4	08/09/07	7.1	<0.69	4.70	0.35	<0.098	<0.049	<0.032	<0.12	0.34	<0.13	18	14	<0.062	130	120	71	24	17
MW-4	11/20/07	1.9	<0.69	0.13	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	5.5	<0.062	34	14	34	3.6	<0.044
MW-4	02/19/08	2.5	<0.69	0.91	0.33	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	3.0	6.9	<0.062	47	18	34	5.4	1.3
MW-4	05/07/08	2.9	<0.69	0.80	0.56	<0.098	0.098 J	<0.032	<0.12	0.21	<0.13	9.1	8.2	<0.062	52	29	30	9.4	6.4
MW-4	08/19/08	3.2	<0.69	0.55	0.55	<0.098	<0.049	<0.032	<0.12	0.20	<0.13	7.0 L1	8.1	<0.062	73	29	26	8.7	4.9
MW-4	11/25/08	8.9	<0.69	2.6	14	<0.098	<0.049	<0.032	<0.12	1.5	<0.13	40	22	<0.062	200	130	73	40	33
MW-4 DUP	11/25/08	5.4	<0.69	3.2	7.6	<0.098	<0.049	<0.032	<0.12	0.74	<0.13	22	14	<0.062	130	72	56	23	19
MW-4	02/18/09	5.5	<0.69	4.3	0.44	<0.098	<0.049	<0.032	<0.12	1.2	<0.13	27	15	<0.062	140	64	37	23	18
MW-4	08/11/09	4.0	<0.69	4.4	4.00	<0.098	<0.049	<0.032	<0.12	0.52	<0.13	25	15	<0.062	130	49	19	26	2.7
MW-4	02/23/10	22	<6.9	33	42	1.5 J	<0.49	<0.32	<1.2	41	<1.3	370	83	<0.62	550	180	53	200	30.0
MW-4	08/10/10	36 J	<28	76	26	<3.9	<2.0	<1.3	<4.8	4.9 J	<5.2	640	230	<2.5	1100	330	81	420	60
MW-4 DUP	08/10/10	19 J	<14	38	36	<2.0	<0.98	<0.64	<2.4	32	<2.6	280	93	<1.2	570	140	44	200	22
MW-4	02/22/11	15.9	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	26.1	<0.00429	202	33.4	19.7	57.3	<0.0121
MW-4	08/02/11	13.6	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	<0.00800	<0.00800	<0.0100	<0.0100	5.84	<0.00600	68.1	<0.100	4.32	13.5	<0.0170
MW-4	11/03/17	5.8	1.1	< 0.83	0.066 J	< 0.17	< 0.17	< 0.17	< 0.83	0.079 J	< 0.25	< 0.83	7.1	< 0.17	67	5.8	8.3	17	0.79 J
MW-4	01/23/18	3.2	0.67 J	0.39 J	<0.042	< 0.060	<0.048	< 0.074	< 0.28	<0.051	< 0.038	< 0.34	3.7	< 0.056	39	0.37 J	2.5	5.9	<0.32
MW-4	06/28/18	3.6	0.78	0.32 J	< 0.043	< 0.062	<0.049	< 0.076	< 0.29	<0.052	< 0.039	< 0.35	4	< 0.057	43	0.47 J	2.2	5.9	< 0.33
MW-5	06/08/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	10	9.9	22	<0.030	<0.044
MW-5	10/26/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	1.9	<0.31	1.4	<0.030	<0.044
MW-5	02/01/07	<0.34	<0.70	<0.039	<0.045	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	<0.083	<0.063	<0.063	<0.33	<0.32	<0.41	<0.031	<0.045
MW-5	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	0.37 J	<0.31	<0.40	<0.030	<0.044
MW-5	08/09/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	02/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	08/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081 L	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	11/25/08	<0.34	<0.71	<0.039	<0.045	<0.10	<0.051	<0.033	<0.12	<0.042	<0.13	<0.084	<0.064	<0.064	<0.33	<0.32	<0.41	<0.031	<0.045
MW-5	02/18/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	08/11/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	02/23/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044

Table 5

**Historical Groundwater Results - PAHs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
MW-5	08/10/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-5	02/22/11	<0.0157	<0.0621	0.00883 J	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	<0.0329	<0.00357	<0.0121
MW-5	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	<0.00800	<0.00800	<0.0100	<0.0100	<0.0160	<0.00600	0.171 J	<0.100	<0.0460	<0.00500	<0.0170
MW-5	10/30/17	<0.23	<0.20	<0.25	<0.042	<0.060	<0.047	<0.073	<0.28	<0.050	<0.038	<0.34	<0.18	<0.055	2.6	<0.048	<0.23	<0.22	<0.32
MW-5	01/23/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	06/28/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	06/08/06	0.56 J	<0.70	<0.039	0.058 J	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	0.64	2.1	<0.063	14	6.9	26	0.58	0.93
MW-6	10/26/06	0.62 J	<0.70	0.17	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	0.23 J	2.3	<0.063	13	4.7	38	0.77	0.066 J
MW-6	02/01/07	0.82 J	4.6	0.31	<0.045	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	1.0	3.0	<0.063	15	6.5	45	1.1	0.40
MW-6	05/22/07	0.70 J	<0.69	0.20	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	0.66	2.2	<0.062	7.1	4.0	21	0.91	0.30
MW-6	08/09/07	1.4	<0.69	0.66	0.069 J	<0.098	<0.049	0.033 J	<0.12	0.12 J	<0.13	5.3	4.4	<0.062	16	9.4	25	4.1	3.3
MW-6	11/20/07	0.51 J	<0.69	0.059 J	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	1.8	<0.062	4.5	2.2	12	0.80	<0.044
MW-6	02/19/08	2.2	<0.69	3.2	1.7	0.14 J	0.090 J	<0.032	<0.12	0.73	<0.13	19	9.1	0.062 J	36	22	24	11	15
MW-6	05/07/08	1.6	<0.69	0.82	1.6	0.11 J	0.087 J	0.15	<0.12	0.78	<0.13	12	5.6	0.064 J	12	8.4	22	5.0	9.6
MW-6	08/19/08	0.88 J	<0.69	0.15	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	1.8 L1	2.8	<0.062	11	4.9	23	1.9	1.2
MW-6	11/25/08	0.77 J	<0.69	0.16	0.12 J	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	0.77	1.9	<0.062	10	3.9	45	1.4	0.53
MW-6	02/18/09	0.89 J	<0.69	0.52	<0.044	<0.098	<0.049	<0.032	<0.12	0.10 J	<0.13	2.4	2.9	<0.062	9.9	4.4	13	2.1	4.9
MW-6	08/11/09	1.0 J	<0.69	1.3	0.21	<0.098	0.077 J	0.080 J	<0.12	0.11 J	<0.13	0.55	4.3	<0.062	16	6.7	29	5.9	0.79
MW-6	02/23/10	1.1 J	<0.69	1.0	1.20	<0.098	<0.049	<0.032	<0.12	1.2	<0.13	6.20	4.0	<0.062	11	4.4	13	4.9	1.70
MW-6	08/10/10	6.0 J	<6.9	7.1	7.2	<0.098	<0.049	0.66 J	<1.2	1.1 J	<1.3	170	25	<0.62	58	34	46	51	5.9
MW-6	02/22/11	6.53	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	5.30	<0.00429	17.5	<0.0179	8.96	10.0	<0.0121
MW-6	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	0.0248 J	<0.00800	<0.0100	<0.0100	<0.0160	0.0224 J	13.2	<0.100	11.5	3.10	<0.0170
MW-6	10/30/17	0.91	<0.20	<0.25	<0.042	<0.060	<0.047	<0.073	<0.28	<0.051	<0.038	<0.34	0.84	<0.055	5.3	0.23 J	2.7	1.4	<0.32
MW-6	01/23/18	0.91	<0.20	<0.25	<0.042	<0.060	<0.048	<0.074	<0.28	<0.051	<0.038	<0.34	0.82	<0.056	4.6	<0.049	0.79	0.9	<0.32
MW-6	06/28/18	0.50 J	<0.20	<0.25	<0.043	<0.061	<0.048	<0.074	<0.28	<0.051	<0.038	<0.34	0.55 J	<0.056	4.8	<0.049	<0.23	0.78	<0.32
MW-7	02/01/07	<0.99	<2.1	<0.11	<0.13	<0.29	<0.15	<0.096	<0.36	<0.12	<0.39	<0.24	<0.19	<0.19	<0.96	<0.93	<1.2	0.20 J	<0.13
MW-7	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7 DUP	05/22/07	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	08/09/07	<0.82	<1.7	<0.095	<0.11	<0.24	<0.12	<0.080	<0.30	<0.10	<0.32	<0.20	<0.16	<0.16	<0.80	<0.78	<1.0	<0.075	<0.11
MW-7	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	02/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	0.051 J	<0.044
MW-7	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	08/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081 L	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	11/25/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044

Table 5

**Historical Groundwater Results - PAHs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
MW-7	02/18/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	08/11/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	08/11/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	02/23/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-7	08/10/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	0.49 J	0.51 J	<0.40	<0.030	<0.044
MW-7	02/22/11	<0.0157	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	<0.0329	<0.00357	<0.0121
MW-7	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	<0.00800	<0.00800	<0.0100	<0.0100	<0.0160	<0.00600	<0.100	<0.100	<0.0460	<0.00500	<0.0170
MW-7	10/30/17	< 0.23	< 0.20	< 0.25	< 0.042	< 0.060	< 0.047	< 0.073	< 0.28	< 0.050	< 0.038	< 0.34	< 0.18	< 0.055	< 0.22	< 0.048	< 0.23	< 0.22	< 0.32
MW-7	01/23/18	< 0.23	< 0.20	< 0.25	< 0.042	< 0.060	< 0.048	< 0.074	< 0.28	< 0.051	< 0.038	< 0.34	0.18 J	< 0.056	0.40 J	< 0.049	< 0.23	< 0.23	< 0.32
MW-7	06/28/18	< 0.23	< 0.20	< 0.25	0.054 J	< 0.060	< 0.048	< 0.074	< 0.28	< 0.051	< 0.038	< 0.34	0.18 J	< 0.056	< 0.22	< 0.049	< 0.23	0.23 J	< 0.32
MW-8	02/01/07	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	08/09/07	<0.33	<0.69	0.083 J	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	0.19 J	<0.062	<0.062	<0.32	<0.31	<0.40	0.27	0.073 J
MW-8	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	02/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	08/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	0.17 L, J	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	11/25/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	02/18/09	<0.33	<0.68	<0.038	<0.044	<0.097	<0.049	<0.032	<0.12	<0.041	<0.13	<0.080	<0.061	<0.061	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	08/11/09	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	02/23/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	08/10/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
MW-8	02/22/11	<0.0157	<0.0621	0.00718 J	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	<0.0329	<0.00357	<0.0121
MW-8	08/02/11	<0.0220	<0.0870	<0.0100	<0.0200	<0.0280	<0.00700	<0.00800	<0.00800	<0.00800	<0.0100	<0.0100	<0.0160	<0.00600	<0.100	<0.100	<0.0460	<0.00500	<0.0170
MW-8	10/30/17	<0.23	<0.20	<0.25	<0.042	<0.059	<0.047	<0.073	<0.28	<0.050	<0.037	<0.33	<0.18	<0.055	<0.22	<0.048	<0.23	<0.22	<0.31
MW-8	01/23/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	06/28/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PZ-1	06/08/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	10/26/06	<0.33	<0.70	<0.038	<0.044	<0.099	<0.049	<0.032	<0.12	<0.041	<0.13	<0.082	<0.063	<0.063	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	02/01/07	<0.34	<0.70	<0.039	<0.045	<0.10	<0.050	<0.033	<0.12	<0.042	<0.13	<0.083	<0.063	<0.063	<0.33	<0.32	<0.41	<0.031	<0.045
PZ-1	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	08/09/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	11/20/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	02/19/08	<0.33	<0.69	0.061 J	0.048 J	<0.098	<0.049	<0.032	<0.12	0.042 J	<0.13	0.51	<0.062	<0.062	<0.32	0.68 J	<0.40	0.51	0.28

Table 5

**Historical Groundwater Results - PAHs
Superior Station
Magellan Pipeline Company, L.P.
Superior, Wisconsin (a)**

Sampling Location	Sampling Date	Acenaphthalene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Naphthalene	Phenanthrene	Pyrene
WAC NR 140 ES		NSS	NSS	3,000	NSS	0.20	NSS	0.2	NSS	0.20	NSS	400	400	NSS	NSS	NSS	100	NSS	250
WAC NR 140 PAL		NSS	NSS	600	NSS	0.02	NSS	0.02	NSS	0.02	NSS	80	80	NSS	NSS	NSS	10	NSS	50
PZ-1	05/07/08	<0.33	<0.69	<0.038	<0.044	<0.098	0.053 J	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	08/19/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081 L	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	11/25/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	02/18/09	<0.33	<0.68	<0.038	<0.044	<0.097	<0.049	<0.032	<0.12	<0.041	<0.13	<0.080	<0.061	<0.061	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	08/11/09	<0.85	<1.8	<0.097	<0.11	<0.25	<0.13	<0.082	<0.31	<0.11	<0.33	<0.21	<0.16	<0.16	<0.82	<0.79	<1.0	<0.077	<0.11
PZ-1	02/23/10	<0.85	<1.8	<0.097	<0.11	<0.25	<0.13	<0.082	<0.31	<0.11	<0.33	<0.21	<0.16	<0.16	<0.82	<0.79	<1.0	<0.077	<0.11
PZ-1	08/10/10	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
PZ-1	02/22/11	<0.0157	<0.0621	<0.00714	<0.00357	<0.0200	<0.00500	<0.00571	<0.00571	<0.00571	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	<0.0329	0.0401 J	<0.0121
PZ-1	08/02/11	<0.0157	<0.0621	<0.00714	<0.00357	<0.0200	0.0141 J	<0.00571	0.00873 J	0.0161 J	<0.00714	<0.00714	<0.0114	<0.00429	<0.0229	<0.0179	<0.0329	0.0247 J	<0.0121
PZ-1	10/30/17	< 0.23	< 0.20	< 0.25	< 0.042	< 0.060	< 0.047	< 0.073	< 0.28	< 0.050	< 0.038	< 0.34	< 0.18	< 0.055	< 0.22	< 0.048	< 0.23	< 0.22	< 0.32
PZ-1	01/23/18	< 0.24	< 0.20	< 0.26	< 0.043	< 0.062	< 0.049	< 0.076	< 0.29	< 0.052	< 0.039	< 0.35	< 0.19	< 0.057	< 0.23	< 0.050	< 0.24	< 0.23	< 0.33
PZ-1	06/28/18	< 0.24	< 0.20	< 0.26	< 0.043	< 0.062	< 0.049	< 0.076	< 0.29	< 0.052	< 0.039	< 0.35	< 0.19	< 0.057	< 0.23	< 0.050	< 0.24	< 0.23	< 0.33
SB-1	08/26/03	<0.67	<0.29	0.083	0.053	<0.061	<0.052	<0.038	<0.11	<0.056	<0.074	0.15	0.23	<0.036	3.3	4.8	4.7	0.22	0.25
SB-2	08/26/03	<0.67	<0.29	<0.039	<0.065	<0.067	<0.052	<0.038	<0.11	<0.057	<0.074	<0.028	<0.074	<0.036	<0.51	<0.35	<0.30	<0.023	<0.046
SB-3	08/26/03	<0.64	<0.28	<0.037	<0.062	<0.058	<0.050	<0.036	<0.11	<0.054	<0.070	<0.026	<0.070	<0.034	<0.48	0.36	0.33	<0.022	<0.044
SB-4	08/27/03	<0.74	<0.32	<0.043	<0.071	<0.067	<0.057	<0.042	<0.12	<0.062	<0.081	<0.030	<0.081	<0.039	<0.56	<0.38	<0.33	<0.025	<0.051
SB-6	08/27/03	<0.64	<0.28	0.21	0.075	<0.058	<0.050	<0.036	<0.11	<0.054	<0.070	0.35	1.2	<0.034	13	12	13	0.81	0.18
SB-9	08/28/03	<0.69	<0.30	0.22	0.14	<0.063	<0.054	<0.039	<0.11	<0.058	<0.076	0.52	1.1	<0.037	11	12	16	0.95	0.66
SB-10	08/28/03	<0.63	<0.27	<0.037	<0.061	<0.058	<0.049	<0.036	<0.10	<0.053	<0.070	<0.026	<0.070	<0.034	<0.48	<0.33	<0.28	<0.022	<0.044
SB-22	01/10/07	<0.35	<0.73	<0.040	<0.046	<0.10	<0.052	<0.034	<0.13	<0.043	<0.14	<0.085	<0.065	<0.065	<0.34	<0.33	<0.42	<0.032	<0.046
Equipment Blank	05/22/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
Equipment Blank	08/09/07	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044
Equipment Blank	11/25/08	<0.33	<0.69	<0.038	<0.044	<0.098	<0.049	<0.032	<0.12	<0.041	<0.13	<0.081	<0.062	<0.062	<0.32	<0.31	<0.40	<0.030	<0.044

a/ Results are in micrograms per liter (ug/L)

PAH = Polynuclear aromatic hydrocarbons.

WAC NR 140 ES = Wisconsin Administrative Code Chapter NR 140, Enforcement Standards, revised February 2017.

WAC NR 140 PAL = Wisconsin Administrative Code Chapter NR 140, Preventive Action Limits, revised February 2017.

NSS = No standard set.

< = Not detected above laboratory method detection limit.

L = Laboratory control sample and/or laboratory control duplicate was above the acceptance limits.

- = Constituent was not analyzed.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Bold text indicates an exceedance of the WAC NR 140 ES.

Italicized text indicates an exceedance of the WAC NR 140 PAL.

ATTACHMENT A : ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-147755-1
Client Project/Site: Magelan/Superior 31401067.433 03.00

For:
WSP USA Inc (formerly LB&G)
5957 McKee Road,
Suite 7
Madison, Wisconsin 53719

Attn: Jennifer Shelton



Authorized for release by:
7/12/2018 10:13:45 AM

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

LINKS

Review your project
results through
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www.testamericainc.com

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

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

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

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Case Narrative

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Job ID: 500-147755-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-147755-1

Comments

No additional comments.

Receipt

The samples were received on 6/29/2018 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS Semi VOA

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 1 analyte to recover outside criteria for this method when utilizing this list of analytes. The LCSD associated with batch 500-439474 had 1 analyte outside control limits: Benzo[b]fluoranthene. These results have been reported and qualified.

Method(s) 8270D: Two base surrogate recoveries for the following sample were outside the upper control limit: PZ-1 (500-147755-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: Two base surrogate recoveries for the following sample were outside the upper control limit: MW-3 (500-147755-6). This sample did not contain any target analytes above the MDL/RL; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: The following samples contained one base surrogate outside acceptance limits: MW-2 (500-147755-3), MW-6 (500-147755-7) and MW-4 (500-147755-8). The laboratory's SOP allows one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

GC VOA

Method(s) WI-GRO: The following samples were diluted due to the nature of the sample matrix: MW-6 (500-147755-7), MW-4 (500-147755-8) and Duplicate (500-147755-9). Elevated reporting limits (RLs) are provided.

Method(s) WI-GRO: Surrogate recovery for the following samples were outside control limits: MW-1 (500-147755-5) and MW-3 (500-147755-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Organic Prep

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

VOA Prep

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

Detection Summary

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: Equipment Blank

Lab Sample ID: 500-147755-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	10		0.50	0.33	ug/L	1		WDNR	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 500-147755-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.054	J	0.15	0.042	ug/L	1		8270D	Total/NA
Phenanthrene	0.23	J	0.74	0.22	ug/L	1		8270D	Total/NA
Methyl tert-butyl ether	0.61		0.50	0.24	ug/L	1		WDNR	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 500-147755-3

No Detections.

Client Sample ID: PZ-1

Lab Sample ID: 500-147755-4

No Detections.

Client Sample ID: MW-1

Lab Sample ID: 500-147755-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.47	J	0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	99		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	12		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	1.9		0.50	0.24	ug/L	1		WDNR	Total/NA
Toluene	1.0		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	3.5		1.5	0.58	ug/L	1		WDNR	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 500-147755-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.37	J	1.5	0.23	ug/L	1		8270D	Total/NA
1,2,4-Trimethylbenzene	1.1		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	0.82		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	190		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	28		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	8.1		0.50	0.24	ug/L	1		WDNR	Total/NA
Toluene	2.4		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	2.3		1.5	0.58	ug/L	1		WDNR	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 500-147755-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.50	J	0.75	0.23	ug/L	1		8270D	Total/NA
Fluorene	0.55	J	0.75	0.18	ug/L	1		8270D	Total/NA
1-Methylnaphthalene	4.8		1.5	0.23	ug/L	1		8270D	Total/NA
Phenanthrene	0.78		0.75	0.23	ug/L	1		8270D	Total/NA
1,2,4-Trimethylbenzene	4.9	J	5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	8.7		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	1500		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	350		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	110		5.0	2.4	ug/L	10		WDNR	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-6 (Continued)

Lab Sample ID: 500-147755-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	18		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	31		15	5.8	ug/L	10		WDNR	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 500-147755-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	3.6		0.77	0.24	ug/L	1		8270D	Total/NA
Acenaphthylene	0.78		0.77	0.20	ug/L	1		8270D	Total/NA
Anthracene	0.32	J	0.77	0.26	ug/L	1		8270D	Total/NA
Fluorene	4.0		0.77	0.19	ug/L	1		8270D	Total/NA
1-Methylnaphthalene	43		1.5	0.23	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	0.47	J	1.5	0.050	ug/L	1		8270D	Total/NA
Naphthalene	2.2		0.77	0.24	ug/L	1		8270D	Total/NA
Phenanthrene	5.9		0.77	0.23	ug/L	1		8270D	Total/NA
1,2,4-Trimethylbenzene	50		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	29		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	1200		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	260		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	50		5.0	2.4	ug/L	10		WDNR	Total/NA
Toluene	44		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	47		15	5.8	ug/L	10		WDNR	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 500-147755-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	8.1		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	11		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	1500		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	360		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	110		5.0	2.4	ug/L	10		WDNR	Total/NA
Toluene	28		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	36		15	5.8	ug/L	10		WDNR	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL NSH

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200
TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-147755-1	Equipment Blank	Water	06/28/18 08:50	06/29/18 09:00
500-147755-2	MW-7	Ground Water	06/28/18 09:07	06/29/18 09:00
500-147755-3	MW-2	Ground Water	06/28/18 10:02	06/29/18 09:00
500-147755-4	PZ-1	Ground Water	06/28/18 10:41	06/29/18 09:00
500-147755-5	MW-1	Ground Water	06/28/18 11:21	06/29/18 09:00
500-147755-6	MW-3	Ground Water	06/28/18 11:53	06/29/18 09:00
500-147755-7	MW-6	Ground Water	06/28/18 12:26	06/29/18 09:00
500-147755-8	MW-4	Ground Water	06/28/18 13:14	06/29/18 09:00
500-147755-9	Duplicate	Ground Water	06/28/18 00:00	06/29/18 09:00



Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: Equipment Blank

Lab Sample ID: 500-147755-1

Date Collected: 06/28/18 08:50

Matrix: Water

Date Received: 06/29/18 09:00

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 10:54	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 10:54	1
Benzene	<0.36		0.50	0.36	ug/L			07/02/18 10:54	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/02/18 10:54	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			07/02/18 10:54	1
Toluene	10		0.50	0.33	ug/L			07/02/18 10:54	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/02/18 10:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	105		80 - 120		07/02/18 10:54	1

Client Sample ID: MW-7

Lab Sample ID: 500-147755-2

Date Collected: 06/28/18 09:07

Matrix: Ground Water

Date Received: 06/29/18 09:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.23		0.74	0.23	ug/L		07/02/18 15:13	07/05/18 16:03	1
Acenaphthylene	<0.20		0.74	0.20	ug/L		07/02/18 15:13	07/05/18 16:03	1
Anthracene	<0.25		0.74	0.25	ug/L		07/02/18 15:13	07/05/18 16:03	1
Benzo[a]anthracene	0.054	J	0.15	0.042	ug/L		07/02/18 15:13	07/05/18 16:03	1
Benzo[a]pyrene	<0.074		0.15	0.074	ug/L		07/02/18 15:13	07/05/18 16:03	1
Benzo[b]fluoranthene	<0.060	*	0.15	0.060	ug/L		07/02/18 15:13	07/05/18 16:03	1
Benzo[g,h,i]perylene	<0.28		0.74	0.28	ug/L		07/02/18 15:13	07/05/18 16:03	1
Benzo[k]fluoranthene	<0.048		0.15	0.048	ug/L		07/02/18 15:13	07/05/18 16:03	1
Chrysene	<0.051		0.15	0.051	ug/L		07/02/18 15:13	07/05/18 16:03	1
Dibenz(a,h)anthracene	<0.038		0.22	0.038	ug/L		07/02/18 15:13	07/05/18 16:03	1
Fluoranthene	<0.34		0.74	0.34	ug/L		07/02/18 15:13	07/05/18 16:03	1
Fluorene	<0.18		0.74	0.18	ug/L		07/02/18 15:13	07/05/18 16:03	1
Indeno[1,2,3-cd]pyrene	<0.056		0.15	0.056	ug/L		07/02/18 15:13	07/05/18 16:03	1
1-Methylnaphthalene	<0.22		1.5	0.22	ug/L		07/02/18 15:13	07/05/18 16:03	1
2-Methylnaphthalene	<0.049		1.5	0.049	ug/L		07/02/18 15:13	07/05/18 16:03	1
Naphthalene	<0.23		0.74	0.23	ug/L		07/02/18 15:13	07/05/18 16:03	1
Phenanthrene	0.23	J	0.74	0.22	ug/L		07/02/18 15:13	07/05/18 16:03	1
Pyrene	<0.32		0.74	0.32	ug/L		07/02/18 15:13	07/05/18 16:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2-Fluorobiphenyl (Surr)</i>	86		34 - 110	07/02/18 15:13	07/05/18 16:03	1
<i>Nitrobenzene-d5 (Surr)</i>	88		36 - 120	07/02/18 15:13	07/05/18 16:03	1
<i>Terphenyl-d14 (Surr)</i>	119		40 - 145	07/02/18 15:13	07/05/18 16:03	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 11:25	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 11:25	1
Benzene	<0.36		0.50	0.36	ug/L			07/02/18 11:25	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/02/18 11:25	1
Methyl tert-butyl ether	0.61		0.50	0.24	ug/L			07/02/18 11:25	1
Toluene	<0.33		0.50	0.33	ug/L			07/02/18 11:25	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/02/18 11:25	1

TestAmerica Chicago

Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-7
Date Collected: 06/28/18 09:07
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-2
Matrix: Ground Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	106		80 - 120		07/02/18 11:25	1

Client Sample ID: MW-2
Date Collected: 06/28/18 10:02
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-3
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.24		0.79	0.24	ug/L		07/02/18 15:13	07/05/18 16:26	1
Acenaphthylene	<0.21		0.79	0.21	ug/L		07/02/18 15:13	07/05/18 16:26	1
Anthracene	<0.26		0.79	0.26	ug/L		07/02/18 15:13	07/05/18 16:26	1
Benzo[a]anthracene	<0.045		0.16	0.045	ug/L		07/02/18 15:13	07/05/18 16:26	1
Benzo[a]pyrene	<0.078		0.16	0.078	ug/L		07/02/18 15:13	07/05/18 16:26	1
Benzo[b]fluoranthene	<0.064 *		0.16	0.064	ug/L		07/02/18 15:13	07/05/18 16:26	1
Benzo[g,h,i]perylene	<0.30		0.79	0.30	ug/L		07/02/18 15:13	07/05/18 16:26	1
Benzo[k]fluoranthene	<0.051		0.16	0.051	ug/L		07/02/18 15:13	07/05/18 16:26	1
Chrysene	<0.054		0.16	0.054	ug/L		07/02/18 15:13	07/05/18 16:26	1
Dibenz(a,h)anthracene	<0.040		0.24	0.040	ug/L		07/02/18 15:13	07/05/18 16:26	1
Fluoranthene	<0.36		0.79	0.36	ug/L		07/02/18 15:13	07/05/18 16:26	1
Fluorene	<0.19		0.79	0.19	ug/L		07/02/18 15:13	07/05/18 16:26	1
Indeno[1,2,3-cd]pyrene	<0.059		0.16	0.059	ug/L		07/02/18 15:13	07/05/18 16:26	1
1-Methylnaphthalene	<0.24		1.6	0.24	ug/L		07/02/18 15:13	07/05/18 16:26	1
2-Methylnaphthalene	<0.051		1.6	0.051	ug/L		07/02/18 15:13	07/05/18 16:26	1
Naphthalene	<0.24		0.79	0.24	ug/L		07/02/18 15:13	07/05/18 16:26	1
Phenanthrene	<0.24		0.79	0.24	ug/L		07/02/18 15:13	07/05/18 16:26	1
Pyrene	<0.34		0.79	0.34	ug/L		07/02/18 15:13	07/05/18 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	113	X	34 - 110	07/02/18 15:13	07/05/18 16:26	1
Nitrobenzene-d5 (Surr)	117		36 - 120	07/02/18 15:13	07/05/18 16:26	1
Terphenyl-d14 (Surr)	122		40 - 145	07/02/18 15:13	07/05/18 16:26	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 14:04	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 14:04	1
Benzene	<0.36		0.50	0.36	ug/L			07/02/18 14:04	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/02/18 14:04	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			07/02/18 14:04	1
Toluene	<0.33		0.50	0.33	ug/L			07/02/18 14:04	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/02/18 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		80 - 120		07/02/18 14:04	1

Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: PZ-1

Date Collected: 06/28/18 10:41

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-4

Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.24		0.77	0.24	ug/L		07/02/18 15:13	07/05/18 16:48	1
Acenaphthylene	<0.20		0.77	0.20	ug/L		07/02/18 15:13	07/05/18 16:48	1
Anthracene	<0.26		0.77	0.26	ug/L		07/02/18 15:13	07/05/18 16:48	1
Benzo[a]anthracene	<0.043		0.15	0.043	ug/L		07/02/18 15:13	07/05/18 16:48	1
Benzo[a]pyrene	<0.076		0.15	0.076	ug/L		07/02/18 15:13	07/05/18 16:48	1
Benzo[b]fluoranthene	<0.062	*	0.15	0.062	ug/L		07/02/18 15:13	07/05/18 16:48	1
Benzo[g,h,i]perylene	<0.29		0.77	0.29	ug/L		07/02/18 15:13	07/05/18 16:48	1
Benzo[k]fluoranthene	<0.049		0.15	0.049	ug/L		07/02/18 15:13	07/05/18 16:48	1
Chrysene	<0.052		0.15	0.052	ug/L		07/02/18 15:13	07/05/18 16:48	1
Dibenz(a,h)anthracene	<0.039		0.23	0.039	ug/L		07/02/18 15:13	07/05/18 16:48	1
Fluoranthene	<0.35		0.77	0.35	ug/L		07/02/18 15:13	07/05/18 16:48	1
Fluorene	<0.19		0.77	0.19	ug/L		07/02/18 15:13	07/05/18 16:48	1
Indeno[1,2,3-cd]pyrene	<0.057		0.15	0.057	ug/L		07/02/18 15:13	07/05/18 16:48	1
1-Methylnaphthalene	<0.23		1.5	0.23	ug/L		07/02/18 15:13	07/05/18 16:48	1
2-Methylnaphthalene	<0.050		1.5	0.050	ug/L		07/02/18 15:13	07/05/18 16:48	1
Naphthalene	<0.24		0.77	0.24	ug/L		07/02/18 15:13	07/05/18 16:48	1
Phenanthrene	<0.23		0.77	0.23	ug/L		07/02/18 15:13	07/05/18 16:48	1
Pyrene	<0.33		0.77	0.33	ug/L		07/02/18 15:13	07/05/18 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	122	X	34 - 110	07/02/18 15:13	07/05/18 16:48	1
Nitrobenzene-d5 (Surr)	128	X	36 - 120	07/02/18 15:13	07/05/18 16:48	1
Terphenyl-d14 (Surr)	127		40 - 145	07/02/18 15:13	07/05/18 16:48	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 14:35	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 14:35	1
Benzene	<0.36		0.50	0.36	ug/L			07/02/18 14:35	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/02/18 14:35	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			07/02/18 14:35	1
Toluene	<0.33		0.50	0.33	ug/L			07/02/18 14:35	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/02/18 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		80 - 120		07/02/18 14:35	1

Client Sample ID: MW-1

Date Collected: 06/28/18 11:21

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-5

Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.23		0.75	0.23	ug/L		07/02/18 15:13	07/05/18 17:11	1
Acenaphthylene	<0.20		0.75	0.20	ug/L		07/02/18 15:13	07/05/18 17:11	1
Anthracene	<0.25		0.75	0.25	ug/L		07/02/18 15:13	07/05/18 17:11	1
Benzo[a]anthracene	<0.042		0.15	0.042	ug/L		07/02/18 15:13	07/05/18 17:11	1
Benzo[a]pyrene	<0.074		0.15	0.074	ug/L		07/02/18 15:13	07/05/18 17:11	1
Benzo[b]fluoranthene	<0.061	*	0.15	0.061	ug/L		07/02/18 15:13	07/05/18 17:11	1
Benzo[g,h,i]perylene	<0.28		0.75	0.28	ug/L		07/02/18 15:13	07/05/18 17:11	1

TestAmerica Chicago

Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-1
Date Collected: 06/28/18 11:21
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-5
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<0.048		0.15	0.048	ug/L		07/02/18 15:13	07/05/18 17:11	1
Chrysene	<0.051		0.15	0.051	ug/L		07/02/18 15:13	07/05/18 17:11	1
Dibenz(a,h)anthracene	<0.038		0.23	0.038	ug/L		07/02/18 15:13	07/05/18 17:11	1
Fluoranthene	<0.34		0.75	0.34	ug/L		07/02/18 15:13	07/05/18 17:11	1
Fluorene	<0.18		0.75	0.18	ug/L		07/02/18 15:13	07/05/18 17:11	1
Indeno[1,2,3-cd]pyrene	<0.056		0.15	0.056	ug/L		07/02/18 15:13	07/05/18 17:11	1
1-Methylnaphthalene	<0.23		1.5	0.23	ug/L		07/02/18 15:13	07/05/18 17:11	1
2-Methylnaphthalene	<0.049		1.5	0.049	ug/L		07/02/18 15:13	07/05/18 17:11	1
Naphthalene	<0.23		0.75	0.23	ug/L		07/02/18 15:13	07/05/18 17:11	1
Phenanthrene	<0.23		0.75	0.23	ug/L		07/02/18 15:13	07/05/18 17:11	1
Pyrene	<0.32		0.75	0.32	ug/L		07/02/18 15:13	07/05/18 17:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	109		34 - 110				07/02/18 15:13	07/05/18 17:11	1
Nitrobenzene-d5 (Surr)	115		36 - 120				07/02/18 15:13	07/05/18 17:11	1
Terphenyl-d14 (Surr)	120		40 - 145				07/02/18 15:13	07/05/18 17:11	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	0.47	J	0.50	0.30	ug/L			07/03/18 10:44	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/03/18 10:44	1
Benzene	99		0.50	0.36	ug/L			07/03/18 10:44	1
Ethylbenzene	12		0.50	0.37	ug/L			07/03/18 10:44	1
Methyl tert-butyl ether	1.9		0.50	0.24	ug/L			07/03/18 10:44	1
Toluene	1.0		0.50	0.33	ug/L			07/03/18 10:44	1
Xylenes, Total	3.5		1.5	0.58	ug/L			07/03/18 10:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	126	X	80 - 120					07/03/18 10:44	1

Client Sample ID: MW-3
Date Collected: 06/28/18 11:53
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-6
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.23		0.76	0.23	ug/L		07/02/18 15:13	07/05/18 17:34	1
Acenaphthylene	<0.20		0.76	0.20	ug/L		07/02/18 15:13	07/05/18 17:34	1
Anthracene	<0.25		0.76	0.25	ug/L		07/02/18 15:13	07/05/18 17:34	1
Benzo[a]anthracene	<0.043		0.15	0.043	ug/L		07/02/18 15:13	07/05/18 17:34	1
Benzo[a]pyrene	<0.075		0.15	0.075	ug/L		07/02/18 15:13	07/05/18 17:34	1
Benzo[b]fluoranthene	<0.061	*	0.15	0.061	ug/L		07/02/18 15:13	07/05/18 17:34	1
Benzo[g,h,i]perylene	<0.28		0.76	0.28	ug/L		07/02/18 15:13	07/05/18 17:34	1
Benzo[k]fluoranthene	<0.048		0.15	0.048	ug/L		07/02/18 15:13	07/05/18 17:34	1
Chrysene	<0.051		0.15	0.051	ug/L		07/02/18 15:13	07/05/18 17:34	1
Dibenz(a,h)anthracene	<0.038		0.23	0.038	ug/L		07/02/18 15:13	07/05/18 17:34	1
Fluoranthene	<0.34		0.76	0.34	ug/L		07/02/18 15:13	07/05/18 17:34	1
Fluorene	<0.18		0.76	0.18	ug/L		07/02/18 15:13	07/05/18 17:34	1
Indeno[1,2,3-cd]pyrene	<0.056		0.15	0.056	ug/L		07/02/18 15:13	07/05/18 17:34	1
1-Methylnaphthalene	0.37	J	1.5	0.23	ug/L		07/02/18 15:13	07/05/18 17:34	1

TestAmerica Chicago

Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-3
Date Collected: 06/28/18 11:53
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-6
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.049		1.5	0.049	ug/L		07/02/18 15:13	07/05/18 17:34	1
Naphthalene	<0.23		0.76	0.23	ug/L		07/02/18 15:13	07/05/18 17:34	1
Phenanthrene	<0.23		0.76	0.23	ug/L		07/02/18 15:13	07/05/18 17:34	1
Pyrene	<0.32		0.76	0.32	ug/L		07/02/18 15:13	07/05/18 17:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	114	X	34 - 110				07/02/18 15:13	07/05/18 17:34	1
Nitrobenzene-d5 (Surr)	121	X	36 - 120				07/02/18 15:13	07/05/18 17:34	1
Terphenyl-d14 (Surr)	135		40 - 145				07/02/18 15:13	07/05/18 17:34	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.1		0.50	0.30	ug/L			07/03/18 11:15	1
1,3,5-Trimethylbenzene	0.82		0.50	0.30	ug/L			07/03/18 11:15	1
Benzene	190		0.50	0.36	ug/L			07/03/18 11:15	1
Ethylbenzene	28		0.50	0.37	ug/L			07/03/18 11:15	1
Methyl tert-butyl ether	8.1		0.50	0.24	ug/L			07/03/18 11:15	1
Toluene	2.4		0.50	0.33	ug/L			07/03/18 11:15	1
Xylenes, Total	2.3		1.5	0.58	ug/L			07/03/18 11:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	136	X	80 - 120					07/03/18 11:15	1

Client Sample ID: MW-6
Date Collected: 06/28/18 12:26
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-7
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.50	J	0.75	0.23	ug/L		07/02/18 15:13	07/05/18 17:56	1
Acenaphthylene	<0.20		0.75	0.20	ug/L		07/02/18 15:13	07/05/18 17:56	1
Anthracene	<0.25		0.75	0.25	ug/L		07/02/18 15:13	07/05/18 17:56	1
Benzo[a]anthracene	<0.043		0.15	0.043	ug/L		07/02/18 15:13	07/05/18 17:56	1
Benzo[a]pyrene	<0.074		0.15	0.074	ug/L		07/02/18 15:13	07/05/18 17:56	1
Benzo[b]fluoranthene	<0.061	*	0.15	0.061	ug/L		07/02/18 15:13	07/05/18 17:56	1
Benzo[g,h,i]perylene	<0.28		0.75	0.28	ug/L		07/02/18 15:13	07/05/18 17:56	1
Benzo[k]fluoranthene	<0.048		0.15	0.048	ug/L		07/02/18 15:13	07/05/18 17:56	1
Chrysene	<0.051		0.15	0.051	ug/L		07/02/18 15:13	07/05/18 17:56	1
Dibenz(a,h)anthracene	<0.038		0.23	0.038	ug/L		07/02/18 15:13	07/05/18 17:56	1
Fluoranthene	<0.34		0.75	0.34	ug/L		07/02/18 15:13	07/05/18 17:56	1
Fluorene	0.55	J	0.75	0.18	ug/L		07/02/18 15:13	07/05/18 17:56	1
Indeno[1,2,3-cd]pyrene	<0.056		0.15	0.056	ug/L		07/02/18 15:13	07/05/18 17:56	1
1-Methylnaphthalene	4.8		1.5	0.23	ug/L		07/02/18 15:13	07/05/18 17:56	1
2-Methylnaphthalene	<0.049		1.5	0.049	ug/L		07/02/18 15:13	07/05/18 17:56	1
Naphthalene	<0.23		0.75	0.23	ug/L		07/02/18 15:13	07/05/18 17:56	1
Phenanthrene	0.78		0.75	0.23	ug/L		07/02/18 15:13	07/05/18 17:56	1
Pyrene	<0.32		0.75	0.32	ug/L		07/02/18 15:13	07/05/18 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		34 - 110				07/02/18 15:13	07/05/18 17:56	1
Nitrobenzene-d5 (Surr)	138	X	36 - 120				07/02/18 15:13	07/05/18 17:56	1

TestAmerica Chicago

Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-6
Date Collected: 06/28/18 12:26
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-7
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14 (Surr)	123		40 - 145	07/02/18 15:13	07/05/18 17:56	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	4.9	J	5.0	3.0	ug/L			07/02/18 19:45	10
1,3,5-Trimethylbenzene	8.7		5.0	3.0	ug/L			07/02/18 19:45	10
Benzene	1500		5.0	3.6	ug/L			07/02/18 19:45	10
Ethylbenzene	350		5.0	3.7	ug/L			07/02/18 19:45	10
Methyl tert-butyl ether	110		5.0	2.4	ug/L			07/02/18 19:45	10
Toluene	18		5.0	3.3	ug/L			07/02/18 19:45	10
Xylenes, Total	31		15	5.8	ug/L			07/02/18 19:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	113		80 - 120		07/02/18 19:45	10

Client Sample ID: MW-4
Date Collected: 06/28/18 13:14
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-8
Matrix: Ground Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.6		0.77	0.24	ug/L		07/02/18 15:13	07/11/18 16:52	1
Acenaphthylene	0.78		0.77	0.20	ug/L		07/02/18 15:13	07/11/18 16:52	1
Anthracene	0.32	J	0.77	0.26	ug/L		07/02/18 15:13	07/11/18 16:52	1
Benzo[a]anthracene	<0.043		0.15	0.043	ug/L		07/02/18 15:13	07/11/18 16:52	1
Benzo[a]pyrene	<0.076		0.15	0.076	ug/L		07/02/18 15:13	07/11/18 16:52	1
Benzo[b]fluoranthene	<0.062	*	0.15	0.062	ug/L		07/02/18 15:13	07/11/18 16:52	1
Benzo[g,h,i]perylene	<0.29		0.77	0.29	ug/L		07/02/18 15:13	07/11/18 16:52	1
Benzo[k]fluoranthene	<0.049		0.15	0.049	ug/L		07/02/18 15:13	07/11/18 16:52	1
Chrysene	<0.052		0.15	0.052	ug/L		07/02/18 15:13	07/11/18 16:52	1
Dibenz(a,h)anthracene	<0.039		0.23	0.039	ug/L		07/02/18 15:13	07/11/18 16:52	1
Fluoranthene	<0.35		0.77	0.35	ug/L		07/02/18 15:13	07/11/18 16:52	1
Fluorene	4.0		0.77	0.19	ug/L		07/02/18 15:13	07/11/18 16:52	1
Indeno[1,2,3-cd]pyrene	<0.057		0.15	0.057	ug/L		07/02/18 15:13	07/11/18 16:52	1
1-Methylnaphthalene	43		1.5	0.23	ug/L		07/02/18 15:13	07/11/18 16:52	1
2-Methylnaphthalene	0.47	J	1.5	0.050	ug/L		07/02/18 15:13	07/11/18 16:52	1
Naphthalene	2.2		0.77	0.24	ug/L		07/02/18 15:13	07/11/18 16:52	1
Phenanthrene	5.9		0.77	0.23	ug/L		07/02/18 15:13	07/11/18 16:52	1
Pyrene	<0.33		0.77	0.33	ug/L		07/02/18 15:13	07/11/18 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	103		34 - 110	07/02/18 15:13	07/11/18 16:52	1
Nitrobenzene-d5 (Surr)	122	X	36 - 120	07/02/18 15:13	07/11/18 16:52	1
Terphenyl-d14 (Surr)	108		40 - 145	07/02/18 15:13	07/11/18 16:52	1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	50		5.0	3.0	ug/L			07/02/18 16:08	10
1,3,5-Trimethylbenzene	29		5.0	3.0	ug/L			07/02/18 16:08	10
Benzene	1200		5.0	3.6	ug/L			07/02/18 16:08	10

TestAmerica Chicago

Client Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-4
Date Collected: 06/28/18 13:14
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-8
Matrix: Ground Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	260		5.0	3.7	ug/L			07/02/18 16:08	10
Methyl tert-butyl ether	50		5.0	2.4	ug/L			07/02/18 16:08	10
Toluene	44		5.0	3.3	ug/L			07/02/18 16:08	10
Xylenes, Total	47		15	5.8	ug/L			07/02/18 16:08	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	109		80 - 120					07/02/18 16:08	10

Client Sample ID: Duplicate
Date Collected: 06/28/18 00:00
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-9
Matrix: Ground Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	8.1		5.0	3.0	ug/L			07/02/18 16:39	10
1,3,5-Trimethylbenzene	11		5.0	3.0	ug/L			07/02/18 16:39	10
Benzene	1500		5.0	3.6	ug/L			07/02/18 16:39	10
Ethylbenzene	360		5.0	3.7	ug/L			07/02/18 16:39	10
Methyl tert-butyl ether	110		5.0	2.4	ug/L			07/02/18 16:39	10
Toluene	28		5.0	3.3	ug/L			07/02/18 16:39	10
Xylenes, Total	36		15	5.8	ug/L			07/02/18 16:39	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	115		80 - 120					07/02/18 16:39	10

Definitions/Glossary

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Glossary

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

QC Association Summary

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

GC/MS Semi VOA

Prep Batch: 439474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-147755-2	MW-7	Total/NA	Ground Water	3510C	
500-147755-3	MW-2	Total/NA	Ground Water	3510C	
500-147755-4	PZ-1	Total/NA	Ground Water	3510C	
500-147755-5	MW-1	Total/NA	Ground Water	3510C	
500-147755-6	MW-3	Total/NA	Ground Water	3510C	
500-147755-7	MW-6	Total/NA	Ground Water	3510C	
500-147755-8	MW-4	Total/NA	Ground Water	3510C	
MB 500-439474/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-439474/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-439474/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 439663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-439474/2-A	Lab Control Sample	Total/NA	Water	8270D	439474
LCSD 500-439474/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	439474

Analysis Batch: 439746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-147755-2	MW-7	Total/NA	Ground Water	8270D	439474
500-147755-3	MW-2	Total/NA	Ground Water	8270D	439474
500-147755-4	PZ-1	Total/NA	Ground Water	8270D	439474
500-147755-5	MW-1	Total/NA	Ground Water	8270D	439474
500-147755-6	MW-3	Total/NA	Ground Water	8270D	439474
500-147755-7	MW-6	Total/NA	Ground Water	8270D	439474

Analysis Batch: 439996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-439474/1-A	Method Blank	Total/NA	Water	8270D	439474

Analysis Batch: 440453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-147755-8	MW-4	Total/NA	Ground Water	8270D	439474

GC VOA

Analysis Batch: 526108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-147755-1	Equipment Blank	Total/NA	Water	WDNR	
500-147755-2	MW-7	Total/NA	Ground Water	WDNR	
500-147755-3	MW-2	Total/NA	Ground Water	WDNR	
500-147755-4	PZ-1	Total/NA	Ground Water	WDNR	
500-147755-7	MW-6	Total/NA	Ground Water	WDNR	
500-147755-8	MW-4	Total/NA	Ground Water	WDNR	
500-147755-9	Duplicate	Total/NA	Ground Water	WDNR	
MB 490-526108/7	Method Blank	Total/NA	Water	WDNR	
LCS 490-526108/6	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-526108/27	Lab Control Sample Dup	Total/NA	Water	WDNR	
500-147755-2 MS	MW-7	Total/NA	Ground Water	WDNR	
500-147755-2 MSD	MW-7	Total/NA	Ground Water	WDNR	

QC Association Summary

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

GC VOA (Continued)

Analysis Batch: 526377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-147755-5	MW-1	Total/NA	Ground Water	WDNR	
500-147755-6	MW-3	Total/NA	Ground Water	WDNR	
MB 490-526377/5	Method Blank	Total/NA	Water	WDNR	
LCS 490-526377/4	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-526377/12	Lab Control Sample Dup	Total/NA	Water	WDNR	

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

Surrogate Summary

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (34-110)	NBZ (36-120)	TPHL (40-145)
500-147755-2	MW-7	86	88	119
500-147755-3	MW-2	113 X	117	122
500-147755-4	PZ-1	122 X	128 X	127
500-147755-5	MW-1	109	115	120
500-147755-6	MW-3	114 X	121 X	135
500-147755-7	MW-6	84	138 X	123
500-147755-8	MW-4	103	122 X	108

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (34-110)	NBZ (36-120)	TPHL (40-145)
LCS 500-439474/2-A	Lab Control Sample	96	105	112
LCSD 500-439474/3-A	Lab Control Sample Dup	100	108	118
MB 500-439474/1-A	Method Blank	95	104	102

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT
		(80-120)
500-147755-2	MW-7	106
500-147755-2 MS	MW-7	107
500-147755-2 MSD	MW-7	107
500-147755-3	MW-2	100
500-147755-4	PZ-1	100
500-147755-5	MW-1	126 X
500-147755-6	MW-3	136 X
500-147755-7	MW-6	113
500-147755-8	MW-4	109
500-147755-9	Duplicate	115

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Surrogate Summary

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT (80-120)
500-147755-1	Equipment Blank	105
LCS 490-526108/6	Lab Control Sample	103
LCS 490-526377/4	Lab Control Sample	101
LCSD 490-526108/27	Lab Control Sample Dup	101
LCSD 490-526377/12	Lab Control Sample Dup	101
MB 490-526108/7	Method Blank	99
MB 490-526377/5	Method Blank	103

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

QC Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-439474/1-A
Matrix: Water
Analysis Batch: 439996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 439474

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.25		0.80	0.25	ug/L		07/02/18 15:13	07/06/18 20:00	1
Acenaphthylene	<0.21		0.80	0.21	ug/L		07/02/18 15:13	07/06/18 20:00	1
Anthracene	<0.27		0.80	0.27	ug/L		07/02/18 15:13	07/06/18 20:00	1
Benzo[a]anthracene	<0.045		0.16	0.045	ug/L		07/02/18 15:13	07/06/18 20:00	1
Benzo[a]pyrene	<0.079		0.16	0.079	ug/L		07/02/18 15:13	07/06/18 20:00	1
Benzo[b]fluoranthene	<0.065		0.16	0.065	ug/L		07/02/18 15:13	07/06/18 20:00	1
Benzo[g,h,i]perylene	<0.30		0.80	0.30	ug/L		07/02/18 15:13	07/06/18 20:00	1
Benzo[k]fluoranthene	<0.051		0.16	0.051	ug/L		07/02/18 15:13	07/06/18 20:00	1
Chrysene	<0.055		0.16	0.055	ug/L		07/02/18 15:13	07/06/18 20:00	1
Dibenz(a,h)anthracene	<0.041		0.24	0.041	ug/L		07/02/18 15:13	07/06/18 20:00	1
Fluoranthene	<0.36		0.80	0.36	ug/L		07/02/18 15:13	07/06/18 20:00	1
Fluorene	<0.20		0.80	0.20	ug/L		07/02/18 15:13	07/06/18 20:00	1
Indeno[1,2,3-cd]pyrene	<0.060		0.16	0.060	ug/L		07/02/18 15:13	07/06/18 20:00	1
1-Methylnaphthalene	<0.24		1.6	0.24	ug/L		07/02/18 15:13	07/06/18 20:00	1
2-Methylnaphthalene	<0.052		1.6	0.052	ug/L		07/02/18 15:13	07/06/18 20:00	1
Naphthalene	<0.25		0.80	0.25	ug/L		07/02/18 15:13	07/06/18 20:00	1
Phenanthrene	<0.24		0.80	0.24	ug/L		07/02/18 15:13	07/06/18 20:00	1
Pyrene	<0.34		0.80	0.34	ug/L		07/02/18 15:13	07/06/18 20:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	95		34 - 110	07/02/18 15:13	07/06/18 20:00	1
Nitrobenzene-d5 (Surr)	104		36 - 120	07/02/18 15:13	07/06/18 20:00	1
Terphenyl-d14 (Surr)	102		40 - 145	07/02/18 15:13	07/06/18 20:00	1

Lab Sample ID: LCS 500-439474/2-A
Matrix: Water
Analysis Batch: 439663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 439474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	32.0	24.9		ug/L		78	46 - 110
Acenaphthylene	32.0	29.0		ug/L		91	47 - 110
Anthracene	32.0	30.8		ug/L		96	67 - 110
Benzo[a]anthracene	32.0	32.8		ug/L		102	70 - 120
Benzo[a]pyrene	32.0	35.1		ug/L		110	70 - 120
Benzo[b]fluoranthene	32.0	35.5		ug/L		111	69 - 123
Benzo[g,h,i]perylene	32.0	32.7		ug/L		102	70 - 120
Benzo[k]fluoranthene	32.0	36.3		ug/L		113	70 - 120
Chrysene	32.0	33.0		ug/L		103	68 - 120
Dibenz(a,h)anthracene	32.0	31.6		ug/L		99	70 - 127
Fluoranthene	32.0	31.9		ug/L		100	68 - 120
Fluorene	32.0	28.3		ug/L		88	53 - 120
Indeno[1,2,3-cd]pyrene	32.0	31.3		ug/L		98	65 - 133
1-Methylnaphthalene	32.0	22.1		ug/L		69	38 - 110
2-Methylnaphthalene	32.0	21.6		ug/L		67	34 - 110
Naphthalene	32.0	21.9		ug/L		68	36 - 110
Phenanthrene	32.0	30.5		ug/L		95	65 - 120
Pyrene	32.0	32.8		ug/L		102	70 - 110

TestAmerica Chicago

QC Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-439474/2-A
Matrix: Water
Analysis Batch: 439663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 439474

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	96		34 - 110
Nitrobenzene-d5 (Surr)	105		36 - 120
Terphenyl-d14 (Surr)	112		40 - 145

Lab Sample ID: LCSD 500-439474/3-A
Matrix: Water
Analysis Batch: 439663

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 439474

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Acenaphthene	32.0	27.6		ug/L		86	46 - 110	10	20	
Acenaphthylene	32.0	30.5		ug/L		95	47 - 110	5	20	
Anthracene	32.0	32.5		ug/L		102	67 - 110	5	20	
Benzo[a]anthracene	32.0	34.7		ug/L		108	70 - 120	6	20	
Benzo[a]pyrene	32.0	36.3		ug/L		113	70 - 120	3	20	
Benzo[b]fluoranthene	32.0	41.0 *		ug/L		128	69 - 123	14	20	
Benzo[g,h,i]perylene	32.0	35.6		ug/L		111	70 - 120	8	20	
Benzo[k]fluoranthene	32.0	33.2		ug/L		104	70 - 120	9	20	
Chrysene	32.0	34.7		ug/L		109	68 - 120	5	20	
Dibenz(a,h)anthracene	32.0	34.2		ug/L		107	70 - 127	8	20	
Fluoranthene	32.0	34.0		ug/L		106	68 - 120	6	20	
Fluorene	32.0	30.6		ug/L		96	53 - 120	8	20	
Indeno[1,2,3-cd]pyrene	32.0	34.0		ug/L		106	65 - 133	9	20	
1-Methylnaphthalene	32.0	24.9		ug/L		78	38 - 110	12	20	
2-Methylnaphthalene	32.0	24.4		ug/L		76	34 - 110	13	20	
Naphthalene	32.0	24.6		ug/L		77	36 - 110	12	20	
Phenanthrene	32.0	32.3		ug/L		101	65 - 120	6	20	
Pyrene	32.0	34.9		ug/L		109	70 - 110	6	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	100		34 - 110
Nitrobenzene-d5 (Surr)	108		36 - 120
Terphenyl-d14 (Surr)	118		40 - 145

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-526108/7
Matrix: Water
Analysis Batch: 526108

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 10:17	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/02/18 10:17	1
Benzene	<0.36		0.50	0.36	ug/L			07/02/18 10:17	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/02/18 10:17	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			07/02/18 10:17	1
Toluene	<0.33		0.50	0.33	ug/L			07/02/18 10:17	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/02/18 10:17	1

TestAmerica Chicago

QC Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: MB 490-526108/7
Matrix: Water
Analysis Batch: 526108

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

Surrogate	<i>MB MB</i> %Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a</i> -Trifluorotoluene	99		80 - 120		07/02/18 10:17	1

Lab Sample ID: LCS 490-526108/6
Matrix: Water
Analysis Batch: 526108

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	23.3		ug/L		116	60 - 131
1,3,5-Trimethylbenzene	20.0	23.1		ug/L		116	70 - 130
Benzene	20.0	22.8		ug/L		114	69 - 129
Ethylbenzene	20.0	22.3		ug/L		112	70 - 130
Methyl tert-butyl ether	20.0	18.5		ug/L		92	57 - 138
Toluene	20.0	22.8		ug/L		114	66 - 127

Surrogate	<i>LCS LCS</i> %Recovery	Qualifier	Limits
<i>a,a,a</i> -Trifluorotoluene	103		80 - 120

Lab Sample ID: LCSD 490-526108/27
Matrix: Water
Analysis Batch: 526108

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	22.1		ug/L		111	60 - 131	5	43
1,3,5-Trimethylbenzene	20.0	21.9		ug/L		109	70 - 130	6	20
Benzene	20.0	22.2		ug/L		111	69 - 129	3	33
Ethylbenzene	20.0	20.9		ug/L		105	70 - 130	7	35
Methyl tert-butyl ether	20.0	18.6		ug/L		93	57 - 138	1	40
Toluene	20.0	22.0		ug/L		110	66 - 127	4	34

Surrogate	<i>LCSD LCSD</i> %Recovery	Qualifier	Limits
<i>a,a,a</i> -Trifluorotoluene	101		80 - 120

Lab Sample ID: 500-147755-2 MS
Matrix: Ground Water
Analysis Batch: 526108

Client Sample ID: MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	<0.30		20.0	20.6		ug/L		103	40 - 165
1,3,5-Trimethylbenzene	<0.30		20.0	20.7		ug/L		104	60 - 140
Benzene	<0.36		20.0	20.6		ug/L		103	29 - 176
Ethylbenzene	<0.37		20.0	20.1		ug/L		100	30 - 170
Methyl tert-butyl ether	0.61		20.0	18.5		ug/L		89	23 - 165
Toluene	<0.33		20.0	20.7		ug/L		103	30 - 167

Surrogate	<i>MS MS</i> %Recovery	Qualifier	Limits
<i>a,a,a</i> -Trifluorotoluene	107		80 - 120

TestAmerica Chicago

QC Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: 500-147755-2 MSD

Matrix: Ground Water

Analysis Batch: 526108

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	<0.30		20.0	24.4		ug/L		122	40 - 165	17	43
1,3,5-Trimethylbenzene	<0.30		20.0	24.0		ug/L		120	60 - 140	15	20
Benzene	<0.36		20.0	23.6		ug/L		118	29 - 176	14	33
Ethylbenzene	<0.37		20.0	23.2		ug/L		116	30 - 170	14	35
Methyl tert-butyl ether	0.61		20.0	20.8		ug/L		101	23 - 165	12	40
Toluene	<0.33		20.0	23.5		ug/L		118	30 - 167	13	34

Surrogate	MSD %Recovery	MSD Qualifier	Limits
a,a,a-Trifluorotoluene	107		80 - 120

Lab Sample ID: MB 490-526377/5

Matrix: Water

Analysis Batch: 526377

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/03/18 10:09	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/03/18 10:09	1
Benzene	<0.36		0.50	0.36	ug/L			07/03/18 10:09	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/03/18 10:09	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			07/03/18 10:09	1
Toluene	<0.33		0.50	0.33	ug/L			07/03/18 10:09	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/03/18 10:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		80 - 120		07/03/18 10:09	1

Lab Sample ID: LCS 490-526377/4

Matrix: Water

Analysis Batch: 526377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	20.8		ug/L		104	60 - 131
1,3,5-Trimethylbenzene	20.0	20.5		ug/L		102	70 - 130
Benzene	20.0	20.2		ug/L		101	69 - 129
Ethylbenzene	20.0	19.3		ug/L		97	70 - 130
Methyl tert-butyl ether	20.0	16.5		ug/L		82	57 - 138
Toluene	20.0	20.1		ug/L		101	66 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	101		80 - 120

Lab Sample ID: LCSD 490-526377/12

Matrix: Water

Analysis Batch: 526377

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	20.2		ug/L		101	60 - 131	3	43

TestAmerica Chicago

QC Sample Results

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 490-526377/12
Matrix: Water
Analysis Batch: 526377

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	20.0	19.9		ug/L		100	70 - 130	3	20
Benzene	20.0	19.6		ug/L		98	69 - 129	3	33
Ethylbenzene	20.0	19.0		ug/L		95	70 - 130	2	35
Methyl tert-butyl ether	20.0	16.7		ug/L		83	57 - 138	1	40
Toluene	20.0	19.6		ug/L		98	66 - 127	2	34

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
<i>a,a,a-Trifluorotoluene</i>	101		80 - 120

Lab Chronicle

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: Equipment Blank

Date Collected: 06/28/18 08:50

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	526108	07/02/18 10:54	AK1	TAL NSH

Client Sample ID: MW-7

Date Collected: 06/28/18 09:07

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	439746	07/05/18 16:03	WDS	TAL CHI
Total/NA	Analysis	WDNR		1	526108	07/02/18 11:25	AK1	TAL NSH

Client Sample ID: MW-2

Date Collected: 06/28/18 10:02

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	439746	07/05/18 16:26	WDS	TAL CHI
Total/NA	Analysis	WDNR		1	526108	07/02/18 14:04	AK1	TAL NSH

Client Sample ID: PZ-1

Date Collected: 06/28/18 10:41

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	439746	07/05/18 16:48	WDS	TAL CHI
Total/NA	Analysis	WDNR		1	526108	07/02/18 14:35	AK1	TAL NSH

Client Sample ID: MW-1

Date Collected: 06/28/18 11:21

Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	439746	07/05/18 17:11	WDS	TAL CHI
Total/NA	Analysis	WDNR		1	526377	07/03/18 10:44	GWM	TAL NSH

Lab Chronicle

Client: WSP USA Inc (formerly LB&G)
 Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Client Sample ID: MW-3
Date Collected: 06/28/18 11:53
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	439746	07/05/18 17:34	WDS	TAL CHI
Total/NA	Analysis	WDNR		1	526377	07/03/18 11:15	GWM	TAL NSH

Client Sample ID: MW-6
Date Collected: 06/28/18 12:26
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	439746	07/05/18 17:56	WDS	TAL CHI
Total/NA	Analysis	WDNR		10	526108	07/02/18 19:45	AK1	TAL NSH

Client Sample ID: MW-4
Date Collected: 06/28/18 13:14
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			439474	07/02/18 15:13	JP1	TAL CHI
Total/NA	Analysis	8270D		1	440453	07/11/18 16:52	AJD	TAL CHI
Total/NA	Analysis	WDNR		10	526108	07/02/18 16:08	AK1	TAL NSH

Client Sample ID: Duplicate
Date Collected: 06/28/18 00:00
Date Received: 06/29/18 09:00

Lab Sample ID: 500-147755-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	526108	07/02/18 16:39	AK1	TAL NSH

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200
 TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: WSP USA Inc (formerly LB&G)
Project/Site: Magelan/Superior 31401067.433 03.00

TestAmerica Job ID: 500-147755-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18 *

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-18

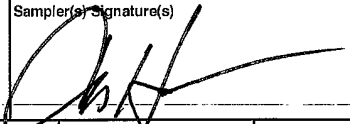
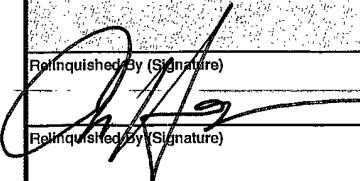
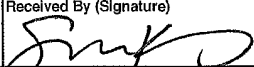
* Accreditation/Certification renewal pending - accreditation/certification considered valid.



CHAIN-OF-CUSTODY RECORD

500-147755

Page ____ of ____

WSP USA Office Address 5957 MCKEE ROAD SUITE 7 MADISON, WI				Requested Analyses & Preservatives								No. 11765	WSP
Project Name MAGELAN/SUPERIOR		WSP USA Contact Name JENNIFER SHELTON										Laboratory Name & Location TEST AMERICA UNIVERSITY PARK, ILL	
Project Location SUPERIOR, WI		WSP USA Contact E-mail JENNIFER.SHELTON@wsp.com										Laboratory Project Manager SANDIE FREDRICK	
Project Number & Task 31401667.493 03.00		WSP USA Contact Phone 608-310-7672										Requested Turn-Around-Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> _____ HR	
Sampler(s) Name(s) CRAIG MEGNA		Sampler(s) Signature(s) 											
				Number of Containers		BTEX	MTBE	TMB	PAM				
	Sample Identification	Matrix	Collection Start*		Collection Stop*		Number of Containers	BTEX	MTBE	TMB	PAM	Sample Comments	
			Date	Time	Date	Time							
1	EQUIPMENT BLANK	DI	6/28/18	850			3	X	X	X	X	2.4c	
2	MW-7	GW		907			5	X	X	X	X		
3	MW-2			1002			5	X	X	X	X		
4	PZ-1			1041			5	X	X	X	X		
5	MW-1			1121			5	X	X	X	X		
6	MW-3			1153			5	X	X	X	X		
7	MW-6			1226			5	X	X	X	X		
8	MW-4			1314			5	X	X	X	X		
9	DUPLICATE						3	X	X	X	X		
Relinquished By (Signature)		Date	Time	Received By (Signature)		Date	Time	Shipment Method		Tracking Number(s)			
		6/28/18	1420	Golu Postal (Fedex)				FEDEX 4059		4059 7173 4317			
Relinquished By (Signature)		Date	Time	Received By (Signature)		Date	Time	Number of Packages		Custody Seal Number(s)			
				Junko TA		06/29/18	0900						



*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

#159469-434 R1T2 EXP 02/19

ORIGIN ID: JOTA (218) 830-9698
 CRAIG HEINRICH (FORMERLY LB&G)
 850 USG LINE DRIVE, SUITE 250
 ST. PAUL, MN 55112
 UNITED STATES US

SHIP DATE: 13JUN18
 ACTWGT: 20.00 LB MAN
 CRD: 33264/CRFE3210

TO **SAMPLE LOGIN**
TESTAMERICA LABS
2417 BOND ST



047/3D66/2155

500-147755 Waybill

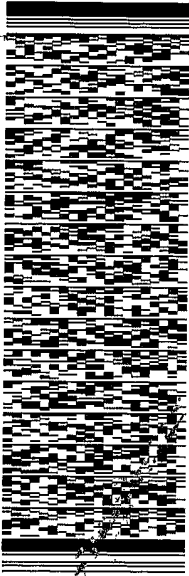
UNIVERSITY PARK IL 60484

(708) 634-5200

PO:

DEPT:

RMA: |||||

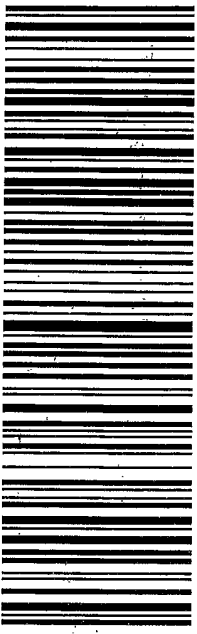


AP1002400811181R

FedEx
 TRK# 4059 7173 4317
 0221

FRI - 29 JUN 10:30A
PRIORITY OVERNIGHT

XH JOTA
60484
 IL-US
ORD



FTD 5010412 28JUN18 DLHA 546C1/48E5/0C8A



COOLER RECEIPT FORM

Cooler Received/Opened On 6/30/2018 @ 0930

Time Samples Removed From Cooler 1258 Time Samples Placed In Storage 1302 (2 Hour Window)

1. Tracking # 8768 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 17960357 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 2.1 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) GH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (initial) GH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) GH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) GH

I certify that I attached a label with the unique LIMS number to each container (initial) GH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# _____

Chain of Custody Record

TestAmerica Chicago

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

Client Information (Sub Contract Lab) Client Contact: Fredrick, Sandie J Shipping/Receiving: sandie.fredrick@testamericainc.com Company: TestAmerica Laboratories, Inc Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204 Phone: 615-726-0177(Tel) 615-726-3404(Fax) Email: Project Name: Superior Station/Bateman Terminal Site:		Lab PM: Fredrick, Sandie J E-Mail: sandie.fredrick@testamericainc.com State of Origin: Wisconsin Accreditations Required (See note): State Program - Wisconsin Due Date Requested: 7/10/2018 TAT Requested (days): PO #: WO #: Project #: 50007002 SSOV#:		COC No: 500-106771.1 Page: Page 1 of 1 Job #: 500-147755-1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)						
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Sealed, On-water/oil, etc. Please Ad-AP)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	WI GR0/503B (MD) WISC PVOC	Analysis Requested	Total Number of Containers	Special Instructions/Note:
Equipment Blank (500-147755-1)	6/28/18	08:50 Central	Water	Water	X	X	X		3	Loc: 500 147755
MW-7 (500-147755-2)	6/28/18	09:07 Central	Water	Water	X	X	X		3	
MW-2 (500-147755-3)	6/28/18	10:02 Central	Water	Water	X	X	X		3	
PZ-1 (500-147755-4)	6/28/18	10:41 Central	Water	Water	X	X	X		3	
MW-1 (500-147755-5)	6/28/18	11:21 Central	Water	Water	X	X	X		3	
MW-3 (500-147755-6)	6/28/18	11:53 Central	Water	Water	X	X	X		3	
MW-6 (500-147755-7)	6/28/18	12:26 Central	Water	Water	X	X	X		3	
MW-4 (500-147755-8)	6/28/18	13:14 Central	Water	Water	X	X	X		3	
Duplicate (500-147755-9)	6/28/18	Central	Water	Water	X	X	X		3	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>										
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____ Relinquished by: _____ Date/Time: _____ Company: TA Relinquished by: _____ Date/Time: 6/29/18 1630 Company: TA Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No										



Login Sample Receipt Checklist

Client: WSP USA Inc (formerly LB&G)

Job Number: 500-147755-1

Login Number: 147755

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	