

January 4, 2019



Environmental Programs Coordinator  
Appleton Wastewater Treatment Facility  
2006 East Newberry Street  
Appleton, Wisconsin 54915-2758

Attn: Mr. Brian Kreski (electronic)  
Phone: (920) 832-2353  
Mobile: (920) 419-0649  
Fax: (920) 832-5949

Re: **2018 Fourth Quarter Compliance Monitoring Report, Industrial User (Wastewater Discharge) Permit #18-21**  
N.W. Mauthe Superfund Site  
725 South Outagamie Street  
Appleton, Wisconsin  
Terracon Project No. 58117057  
BRRTS No. 02-45-000127

Dear Mr. Kreski:

Terracon Consultants, Inc. (Terracon) is pleased to submit this quarterly process compliance report for the N.W. Mauthe Superfund site, 725 South Outagamie Street, Appleton, Wisconsin. This report is submitted in conformance with the City of Appleton Industrial User No. 18-21, issued on May 31, 2018. This report covers the period of October 1, 2018, through December 31, 2018, which included monthly effluent compliance monitoring sampling. The monthly results are summarized in the attached Table 1.

The flow monitoring and sampling activities were conducted monthly at the effluent discharge point, prior to Outfall 001. During this reporting period, local limit compliance monitoring samples were collected by the City of Appleton on November 14, 2018. However, Terracon has not yet received a copy of the results. Historical results are presented in the attached Table 2.

As noted in the 2012 Fourth Quarter Process Compliance Report the system was replumbed during October 2012. Consequently, a greater volume of water is retained within the equalization tank and sampling occurs directly from the port on the equalization tank discharge pipe. Due to the improvement in the system plumbing, Terracon has collected the composite effluent sample directly from the tank effluent piping during the 2018 sampling events.

Approximately 250 milliliters (mL) of the collected sample was transferred to a new, clean 250-mL plastic bottle provided by the laboratory. This unfiltered and unpreserved sample was



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## 2018 Fourth Quarter Compliance Monitoring Report

N.W. Mauthe Superfund Site ■ Appleton, Wisconsin

January 4, 2019 ■ Terracon Project No. 58117057



submitted to Pace Analytical (Pace) laboratory (Green Bay, Wisconsin) for analysis of hexavalent chromium. An additional aliquot of the original sample was transferred to a clean, new 250-mL plastic bottle with nitric acid preservative provided by the laboratory. This preserved sample was submitted to Pace for analysis of total chromium. The laboratory analytic test reports and chain-of-custody record for each of the three monthly sampling rounds are attached. After the laboratory samples were prepared, the pH of the remaining collected discharge sample was measured with an Oakton pHTestrs.

The attached table summarizes the total metered discharge readings, pH measurements, and laboratory test results. Monthly discharge totals were calculated by linear interpolation of the actual meter readings. Total discharge during the reporting period was 243,839 gallons with a mean daily flow of approximately 2,650 gallons per day. Based on the laboratory results, there were no exceedances during this reporting period from Outfall 001.

Scott A. Hodgson, P.G. performed all the sample collection and monitoring during this reporting period. The following certification statement is required by Section 2 0-106, Chapter 20, Utilities:

"I (Scott Hodgson) certify under penalty of law that this document and all attachments were prepared under my direction or supervision in conformance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**2018 Fourth Quarter Compliance Monitoring Report**

N.W. Mauthe Superfund Site ■ Appleton, Wisconsin

January 4, 2019 ■ Terracon Project No. 58117057



Please call (920-791-9206) or email ([sahodgson@terracon.com](mailto:sahodgson@terracon.com)) if you have any questions or comments regarding the information provided or need additional information.

Sincerely,

**Terracon**

Scott A. Hodgson, P.G.

Senior Project Manager

SAH:sah\\milwaukee1\Data\Projects\2011\58117057\Working Files\Pre-Treatment Permit\Process Compliance reports\Terracon 2018\Fourth Quarter\Fourth Quarter 2018 Process Compliance.doc

Attachments: Table 1  
Table 2  
Laboratory Analytic Test Reports

Copies to: Jennifer Borski, WDNR-Oshkosh (Electronic)  
File

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
09/25/07		8,290,363											
	10/01/07	8,300,685											
10/01/07		8,301,251	10,888										
10/02/07		8,301,251	0		7.7								
10/15/07		8,324,675	23,424										
10/16/07		8,324,675	0		7.4	1.700			6.93	3.9		7.30	0.60
10/22/07		8,355,957	31,282										
10/23/07		8,355,957	0		7.5	1.500			7.04	3.75		NA	NA
10/29/07		8,370,413	14,456	<b>October</b>									
10/30/07		8,370,413	0	<b>71,891</b>	7.4	1.900			NA	NA		NA	NA
	11/01/07	8,372,575											
11/05/07		8,377,912	7,499										
11/06/07		8,377,912	0	<b>November</b>	8.3	1.900	1.300		7.8	4.30		8.2	0.18
11/16/07		8,386,583	8,671	<b>21,587</b>									
	12/01/07	8,394,162											
12/03/07		8,395,372	8,789										
12/04/07		8,395,372	0		8.6	3.100	2.500		8.4	4.60		8.6	0.16
12/12/07		8,399,522	4,150	<b>December</b>									
12/21/07		8,402,508	2,986	<b>25,977</b>									
	01/01/08	8,420,139											
01/01/08		8,420,868	18,360										
01/02/08		8,420,868	0		8.7	1.300	1.200		8.4	4.50		8.7	0.62
01/02/08		8,421,628	760										
01/10/08		8,459,333	37,705										
01/15/08		8,479,244	19,911	<b>January</b>									
01/25/08		8,497,063	17,819	<b>84,612</b>									
	02/01/08	8,504,750											
02/01/08		8,505,562	8,499										
02/03/08		8,507,408	1,846	<b>February</b>									
02/04/08		8,507,408	0	<b>22,861</b>	8.9	1.700	1.600		8.7	2.60		8.8	0.70
	03/01/08	8,527,611											
03/02/08		8,528,931	21,523	<b>March</b>	9.0	2.9	2.500		8.7	3.60		8.8	2.50
03/31/08		8,653,211	124,280	<b>128,713</b>									
	04/01/08	8,656,324											
04/01/08		8,657,629	4,418		9.0	1.6	1.530		8.7	1.60		8.9	1.45
04/01/08		8,661,298	3,669										
04/04/08		8,682,788	21,490										
04/07/08		8,697,084	14,296										
04/08/08		8,697,084	0		9.1	0.063			8.7	1.40		8.9	0.54
04/14/08		8,790,128	93,044										
04/15/08		8,790,128	0		9.1	0.36			8.7	0.90		8.8	0.17
04/15/08		8,797,710	7,582					Installed			Installed		
04/16/08		8,804,525	6,815					1,074			2,804		
04/16/08		8,806,972	2,447					1,589			3,661		
04/21/08		8,826,834	19,862					5,176			11,176		
04/22/08		8,826,834	0		9.1	0.87		5,649	8.8	0.95	12,292	8.9	0.55
04/28/08		8,860,276	33,442	<b>April</b>				13,291			36,802		
04/29/08		8,860,276	0	<b>212,193</b>	9.1	0.51		14,721	8.8	0.96	40,534	9.1	0.43
	05/01/08	8,868,517											
05/05/08		8,890,994	30,718					22,372			59,203		
05/06/08		8,890,994	0		9.1	0.95	0.679	22,844	8.7	1.14	60,259	8.8	0.62
05/12/08		8,907,573	16,579					28,018			70,853		
05/13/08		8,907,573	0		9.2	0.69		28,487	8.8	1.00	71,555	9.0	0.34
05/19/08		8,920,045	12,472					32,756			79,328		
05/20/08		8,920,045	0		9.1	0.74		33,225	8.8	0.96	80,376	8.9	0.27
05/26/08		8,929,582	9,537	<b>May</b>				36,557			85,277		
05/27/08		8,929,582	0	<b>66,866</b>	9.0	0.60		37,025	8.9	1.04	85,979	8.9	0.16
	06/01/08	8,935,384											

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
06/02/08		8,936,965	7,383				39,411			90,202			
06/03/08		8,936,965	0		9.3	0.90	39,876	9.0	1.06	90,901	9.0	0.54	
06/09/08		8,951,078	14,113				43,187			101,102			
06/10/08		8,951,078	0		9.2	0.85	44,118	9.0	1.53	106,505	9.0	0.38	
06/11/08		8,960,258	9,180				45,176			112,396			
06/16/08		8,999,813	39,555				52,865			140,673			
06/16/08		8,999,813	0				52,865			141,398			
06/17/08		8,999,813	0		9.2	1.4	53,808	9.1	3.40	143,560	9.1	0.33	
06/18/08		9,007,718	7,905				54,790			146,825			
06/23/08		9,016,923	9,205				57,605			153,557			
06/24/08		9,016,923	0		9.3	0.20	58,074	9.1	2.50	154,613	9.0	0.14	
06/30/08		9,026,850	9,927	<b>June</b>			61,392			160,227			
06/30/08		9,026,850	0	<b>91,466</b>			61,392			160,573			
	07/01/08	9,026,850											
07/01/08		9,026,850	0		9.3	1.4	61,861	9.0	2.45	161,266	9.1	0.58	
07/07/08		9,035,952	9,102				64,701			166,481			
07/08/08		9,035,952	0		9.4	1.2	65,168	9.1	1.90	167,518	9.2	1.05	
07/10/08		9,041,071	5,119				66,138			170,315			
07/14/08		9,054,932	13,861				68,973			182,057			
07/15/08		9,054,932	0		9.4	0.82	69,444	9.0	1.80	184,517	9.2	0.54	
07/21/08		9,083,663	28,731				74,198			206,929			
07/22/08		9,083,663	0		9.4	0.74	75,898	9.2	2.52	211,453	9.2	0.31	
07/25/08		9,114,297	30,634				81,242			230,374			
07/28/08		9,121,075	6,778				83,136			235,668			
07/29/08		9,121,075	0		7.4	0.70	83,609	7.2	3.30	237,073	7.2	0.30	
07/29/08		9,123,409	2,334	<b>July</b>			83,646			237,455			
	08/01/08	9,127,730		<b>100,880</b>									
08/04/08		9,137,140	13,731				87,426			248,221			
08/05/08		9,137,140	0		7.6	1.30	87,426	7.2	2.72	250,342	7.2	0.41	
08/05/08		9,141,581	4,441				87,938			252,120			
08/09/08		9,151,886	10,305				90,785			260,213			
08/11/08		9,154,723	2,837				91,732			262,298			
08/12/08		9,154,723	0		7.5	1.2	92,206	7.2	2.45	263,337	7.3	0.25	
08/13/08		9,157,388	2,665				92,710			264,058			
08/18/08		9,162,704	5,316				94,604			267,897			
08/19/08		9,162,704	0		7.5	0.98	95,077	7.2	2.08	268,595	7.2	0.20	
08/19/08		9,163,932	1,228				95,106			268,623			
08/21/08		9,166,109	2,177				96,049			270,020			
08/24/08		9,168,274	2,165				96,993			271,417			
08/26/08		9,168,274	0	<b>August</b>	7.5	1.1	97,465	7.1	2.25	272,112	7.1	0.22	
	09/01/08	9,173,323		<b>45,593</b>									
09/01/08		9,173,586	5,312				99,390			274,587			
09/02/08		9,173,586	0		7.6	1.4	99,863	7.3	2.50	274,936	7.3	0.21	
09/02/08		9,174,445	859				99,894			274,962			
09/06/08		9,176,960	2,515				100,837			276,718			
09/08/08		9,176,960	0		7.5	1.3	101,310	7.2	2.25	277,071	7.3	0.16	
09/15/08		9,182,218	5,258				103,257			279,911			
09/16/08		9,182,218	0		7.6	1.3	103,731	7.3	2.60	280,611	7.6	0.37	
09/18/08		9,185,245	3,027				104,715			281,689			
09/22/08		9,187,538	2,293				105,663			283,095			
09/23/08		9,187,538	0		7.5	1.6	106,137	7.3	3.05	283,475	7.5	0.17	
09/28/08		9,191,553	4,015				107,560			285,589			
09/30/08		9,191,553	0	<b>September</b>	7.6	1.8	108,035	7.4	3.70	285,942	7.4	0.18	
	10/01/08	9,192,867		<b>19,545</b>									

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
10/05/08		9,195,280	3,727					109,500			287,383		
10/07/08		9,195,280	0		7.7	2.2	2,000	109,975	7.4	4.38	288,093	7.8	0.12
10/07/08		9,196,521	1,241					110,012			288,124		
10/10/08		9,200,017	3,496					110,965			290,943		
10/12/08		9,200,017	0					111,919			291,644		
10/14/08		9,200,017	0		7.8	1.9		112,396	7.5	3.48	292,698	7.8	0.27
10/16/08		9,204,404	4,387					112,906			293,436		
10/18/08		9,206,201	1,797					113,861			294,504		
10/21/08		9,206,201	0		7.8			114,337	7.5	4.02	295,563	7.9	0.28
10/22/08		9,208,980	2,779					114,848			296,250		
10/26/08		9,211,601	2,621					116,279			297,676		
10/28/08		9,211,601	0	<b>October</b>	7.9	2.0		116,756	7.7	3.96	298,743	8.2	0.26
	11/01/08	9,214,938		<b>22,071</b>									
11/01/08		9,215,379	3,778					117,743			300,201		
11/04/08		9,215,379	0		8.0	2.1	1,880	118,698	7.7	4.32	301,273	8.1	0.20
11/04/08		9,217,467	2,088					118,732			301,305		
11/07/08		9,219,330	1,863					119,685			302,376		
11/10/08		9,220,422	1,092					120,162			303,090		
11/20/08		9,229,031	8,609					123,506			309,112		
11/24/08		9,231,935	2,904					124,939			310,833		
11/24/08		9,232,260	325					124,939			311,189		
11/26/08		9,233,464	1,204					125,702			311,660		
11/28/08		9,234,926	1,462	<b>November</b>				126,192			312,744		
	12/01/08	9,234,926		<b>19,988</b>									
12/02/08		9,234,926	0		8.2	2.3	2,190	127,656	7.8	3.57	314,118	8.3	0.18
12/12/08		9,242,670	7,744					130,122			316,912		
12/17/08		9,247,587	4,917	<b>December</b>				131,563			320,808		
	01/01/09	9,266,230		<b>31,304</b>									
01/02/09		9,268,140	20,553					136,435			338,229		
01/06/09		9,268,140	0		7.8	2.5	2,430	137,894	7.7	4.48	341,351	7.8	1.05
01/12/09		9,277,419	9,279	<b>January</b>				139,384			344,897		
	02/01/09	9,287,182		<b>20,952</b>									
02/01/09		9,287,326	9,907					143,256			351,798		
02/03/09		9,287,326	0		7.8	3.3	2,900	143,738	7.9	4.69	352,143	8.2	0.34
02/05/09		9,288,848	1,522	<b>February</b>				143,772			352,912		
	03/01/09	9,334,332		<b>47,151</b>									
03/01/09		9,335,249	46,401					153,077			393,568		
03/03/09		9,335,249	0		7.6	2.4	1,970	153,561	7.9	4.24	394,973	8.2	0.87
03/11/09		9,355,734	20,485					156,519			412,282		
03/30/09		9,463,572	107,838					182,357			500,471		
03/31/09		9,463,572	0	<b>March</b>				183,323			501,935		
	04/01/09	9,467,680		<b>133,348</b>									
04/01/09		9,469,538	5,966					184,290			504,856		
04/03/09		9,478,305	8,767					187,194			511,375		
04/06/09		9,485,542	7,237					189,607			516,807		
04/07/09		9,485,542	0		7.7	0.84	0,730	190,569	7.9	1.14	518,251	8.1	0.52
04/13/09		9,498,358	12,816					194,432			525,799		
04/14/09		9,498,358	0		7.7	0.59		194,908	8.0	1.20	525,799	8.2	0.27
04/20/09		9,507,740	9,382					198,262			532,295		
04/21/09		9,507,740	0		7.8	1.0		198,262	8.0	0.96	533,364	8.3	1.74
04/27/09		9,545,303	37,563					208,646			561,846		
04/28/09		9,545,303	0		8.0	1.2		210,663	7.7	1.89	566,157	7.5	0.28

**TABLE 1**  
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N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	05/01/09	9,568,209		<b>April</b>									
	05/01/09	9,574,025	28,722	<b>100,528</b>				217,567			582,471		
	05/04/09	9,582,624	8,599					220,929			588,270		
	05/05/09	9,582,624	0		7.6	0.76	0.724	221,884	8.0	1.29	589,714	8.0	0.33
	05/11/09	9,599,171	16,547					227,170			599,566		
	05/12/09	9,599,171	0		8.0	0.89		228,124	7.6	0.84	600,996	7.9	0.24
	05/18/09	9,613,720	14,549					232,921			609,305		
	05/19/09	9,613,720	0		7.4	0.79		233,874	7.0	0.84	610,378	7.2	0.38
	05/19/09	9,615,798	2,078					233,908			610,421		
	05/19/09	9,616,122	324					233,908			610,775		
	05/25/09	9,624,219	8,097					237,697			615,786		
	05/26/09	9,624,219	0		7.3	0.58		238,168	7.1	1.08	616,149	7.0	0.16
	06/01/09	9,650,519		<b>May</b>									
	06/01/09	9,652,323	28,104	<b>82,310</b>				245,914			637,378		
	06/02/09	9,652,323	0		7.3	0.23	0.648	246,871	6.9	1.05	638,835	7.2	0.26
	06/03/09	9,658,104	5,781					248,350			641,072		
	06/15/09	9,701,735	43,631					261,249			674,466		
	07/01/09	9,727,520		<b>June</b>									
	07/01/09	9,727,975	26,240	<b>77,001</b>				272,082			691,914		
	07/05/09	9,732,032	4,057					273,967			694,431		
	07/07/09	9,732,032	0		7.4	0.96	0.878	274,443	7.1	2.20	695,508	7.1	0.20
	07/20/09	9,742,289	10,257					278,743			700,527		
	08/01/09	9,748,231		<b>July</b>									
	08/03/09	9,749,397	7,108	<b>20,712</b>				282,543			704,414		
	08/04/09	9,749,397	0		7.5	1.9	1.680	283,019	7.1	2.80	704,768	7.3	0.14
	08/08/09	9,752,139	2,742					284,005			706,115		
	08/08/09	9,753,763	1,624					284,480			707,282		
	08/09/09	9,757,508	3,745					284,962			710,677		
	08/10/09	9,761,572	4,064					285,930			714,131		
	08/10/09	9,762,328	756					286,411			714,491		
	08/12/09	9,765,851	3,523					287,368			717,355		
	08/13/09	9,767,253	1,402					287,846			718,430		
	08/17/09	9,771,256	4,003					289,758			720,916		
	08/30/09	9,785,737	14,481					295,976			730,538		
	09/01/09	9,787,043		<b>August</b>									
	09/01/09	9,787,352	1,615	<b>38,811</b>	7.6	1.6	1.320	296,492	7.1	2.85	731,650	7.4	0.53
	09/10/09	9,794,060	6,708					299,850			735,572		
	09/21/09	9,800,194	6,134					303,204			738,803		
	09/22/09	9,800,194	0					303,684			739,163		
	10/01/09	9,806,949		<b>September</b>									
	10/01/09	9,807,491	7,297	<b>19,906</b>				306,569			743,395		
	10/05/09	9,811,856	4,365					308,500			746,224		
	10/06/09	9,811,856	0		6.9	1.8	1.700	308,983	6.8	2.48	746,576	7.1	0.55
	10/15/09	9,827,819	15,963					314,838			757,329		
	10/18/09	9,830,464	2,645					316,288			758,757		
	11/01/09	9,871,202		<b>October</b>									
	11/02/09	9,875,106	44,642	<b>64,253</b>				329,981			793,417		
	11/03/09	9,875,106	0		7.4	1.2	1.150	330,961	7.0	2.60	795,595	7.2	0.46
	11/04/09	9,880,551	5,445					331,974			797,084		
	11/05/09	9,882,809	2,258					332,950			798,526		
	11/11/09	9,891,712	8,903					337,309			803,889		
	11/12/09	9,893,927	2,215					338,274			805,324		
	11/16/09	9,896,880	2,953					339,720			807,132		
	11/17/09	9,897,695	815					340,200			807,495		
	11/20/09	9,899,892	2,197					341,164			808,946		
	11/30/09	9,914,595	14,703					346,476			819,664		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	12/01/09	9,914,595		<b>November</b>									
12/01/09		9,914,595	0	<b>43,393</b>	7.6	1.7	1.500	347,446	7.3	2.25	820,740	7.8	0.67
12/15/09		9,931,024	16,429					354,237			829,781		
12/18/09		9,933,254	2,230					355,200			831,213		
	01/01/10	9,956,004		<b>December</b>									
01/03/10		9,960,070	26,816	<b>41,409</b>				362,443			853,235		
01/05/10		9,960,070	0		6.9	2.3	2.220	362,924	7.2	5.36	855,045	7.2	0.68
01/14/10		9,969,979	9,909					365,847			860,488		
01/18/10		9,972,503	2,524					366,807			862,304		
01/31/10		9,991,034	18,531					370,664			878,832		
	02/01/10	9,991,034		<b>January</b>									
02/02/10		9,991,034	0	<b>35,030</b>	7.4	1.6	1.460	371,145	7.2	4.05	880,637	7.2	0.46
02/03/10		9,994,392	3,358					371,664			881,364		
02/16/10		10,002,996	8,604					374,543			887,937		
02/28/10		10,009,542	6,546					376,928			892,655		
	03/01/10	10,009,542		<b>February</b>									
03/02/10		10,009,542	0	<b>18,508</b>	7.6	1.6	1.340	376,928	7.4	2.70	893,732	7.4	1.41
03/06/10		10,015,341	5,799					377,919			898,085		
03/13/10		10,048,616	33,275					383,764			927,938		
03/17/10		10,065,891	17,275					388,140			942,069		
03/23/10		10,077,601	11,710					392,478			950,481		
03/31/10		10,088,487	10,886					396,786			958,091		
	04/01/10	10,088,725		<b>March</b>									
04/01/10		10,088,817	330	<b>79,183</b>				396,786			958,456		
04/04/10		10,092,465	3,648					398,207			961,014		
04/06/10		10,092,465	0		7.4	1.3	1.180	399,166	7.2	2.00	962,110	7.2	0.20
04/19/10		10,151,166	58,701					416,846			1,005,028		
	05/01/10	10,189,439		<b>April</b>									
05/03/10		10,196,869	45,703	<b>100,715</b>				432,284			1,038,553		
05/04/10		10,196,869	0		7.3	0.98	0.902	433,730	7.1	1.12	1,040,370	7.2	0.37
05/17/10		10,258,463	61,594					453,256			1,083,344		
06/01/10		10,294,510	36,047					466,168			1,109,480		
	06/01/10	10,294,510		<b>May</b>									
06/01/10		10,294,510	0	<b>105,071</b>	7.6	0.85	0.762	467,117	7.2	1.44	1,110,569	7.3	0.28
06/21/10		10,372,589	78,079					488,138			1,171,628		
06/30/10		10,400,340	27,751					495,720			1,193,925		
06/30/10		10,400,889	549					496,193			1,194,286		
	07/01/10	10,401,954		<b>June</b>									
07/01/10		10,402,536	1,647	<b>107,444</b>				496,664			1,195,375		
07/05/10		10,409,431	6,895					499,493			1,200,058		
07/06/10		10,409,431	0		7.3	1.1	0.988	499,963	7.3	1.92	1,200,783	7.5	0.41
07/12/10		10,426,614	17,183					504,247			1,213,873		
07/21/10		10,506,902	80,288					525,545			1,275,358		
07/22/10		10,515,567	8,665					527,488			1,282,668		
07/23/10		10,532,459	16,892					531,679			1,283,332		
	08/01/10	10,586,662		<b>July</b>									
08/02/10		10,594,781	62,322	<b>184,709</b>				549,129			1,283,332		
08/03/10		10,594,781	0		7.8	0.54	0.515	549,601	7.4	1.20	1,283,332	7.5	0.20
08/04/10		10,599,046	4,265					550,588			1,283,332		
08/04/10		10,599,046	0					550,588			1,283,358		
08/04/10		10,599,046	0					550,588			1,283,358		
08/05/10		10,600,937	1,891					551,531			1,284,413		
08/06/10		10,602,372	1,435					552,002			1,285,481		
08/07/10		10,604,242	1,870					552,943			1,286,560		
08/12/10		10,621,705	17,463					558,442			1,299,650		
08/18/10		10,644,322	22,617					565,095			1,317,296		



**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	09/01/10	10,664,511		<b>August</b>									
09/06/10		10,672,363	28,041	<b>77,849</b>				575,879			1,336,978		
09/07/10		10,672,363	0		7.7	0.64	0.588	575,879	7.2	1.28	1,337,698	7.4	0.19
09/09/10		10,675,017	2,654					576,846			1,338,823		
09/09/10		10,675,348	331					576,846			1,339,184		
09/15/10		10,681,923	6,575					579,656			1,343,454		
09/20/10		10,688,747	6,824					582,004			1,348,431		
09/28/10		10,712,898	24,151					588,142			1,368,075		
09/28/10		10,713,225	327					588,142			1,368,432		
	10/01/10	10,717,803		<b>September</b>									
10/01/10		10,718,374	5,149	<b>53,291</b>				590,497			1,371,651		
10/03/10		10,721,339	2,965					591,909			1,373,451		
10/05/10		10,721,339	0		7.6	0.80	0.763	592,849	7.3	1.32	1,374,902	7.5	0.10
10/15/10		10,733,086	11,747					597,097			1,380,767		
10/17/10		10,734,957	1,871					598,030			1,381,848		
10/31/10		10,760,102	25,145					605,549			1,401,547		
	11/01/10	10,760,102		<b>October</b>									
11/02/10		10,760,102	0	<b>42,299</b>	7.8	0.65	0.639	606,486	7.6	1.44	1,403,369	7.9	0.20
11/11/10		10,773,294	13,192					611,203			1,410,005		
11/14/10		10,775,484	2,190					612,137			1,411,471		
11/17/10		10,778,424	2,940					613,539			1,413,301		
11/28/10		10,790,717	12,293					618,231			1,422,421		
	12/01/10	10,794,632		<b>November</b>									
12/04/10		10,800,013	9,296	<b>34,530</b>				622,006			1,428,648		
12/07/10		10,800,013	0		7.6	1.0	0.989	623,423	7.8	1.80	1,430,482	7.9	0.24
12/15/10		10,811,058	11,045					627,228			1,435,313		
12/20/10		10,814,659	3,601					628,621			1,437,887		
12/23/10		10,816,825	2,166					629,558			1,439,358		
	01/01/11	10,827,569		<b>December</b>									
01/02/11		10,829,348	12,523	<b>32,938</b>				632,850			1,449,967		
01/04/11		10,829,348	0		8.0	1.6	1.500	633,803	7.9	5.31	1,452,901	8.0	0.53
01/17/11		10,845,438	16,090					638,076			1,462,175		
01/28/11		10,852,203	6,765					640,437			1,467,352		
01/30/11		10,853,317	1,114					640,910			1,468,093		
	02/01/11	10,853,317		<b>January</b>									
02/01/11		10,853,317	0	<b>25,748</b>	7.9	2.1	2.100	641,382	7.7	4.90	1,468,834	7.6	0.18
02/02/11		10,854,899	1,582					641,426			1,469,273		
02/14/11		10,859,963	5,064					643,318			1,472,988		
02/21/11		10,876,100	16,137					646,167			1,488,233		
02/21/11		10,876,705	605					646,167			1,488,978		
02/24/11		10,880,277	3,572					647,105			1,491,974		
02/27/11		10,883,601	3,324					648,128			1,494,713		
	03/01/11	10,883,601		<b>February</b>									
03/01/11		10,883,601	0	<b>30,284</b>	7.8	1.8	1.530	648,594	7.7	4.95	1,496,572	7.8	0.52
03/21/11		10,957,602	74,001					664,834			1,558,957		
	04/01/11	11,023,291		<b>March</b>									
04/04/11		11,045,838	88,236	<b>139,690</b>				687,442			1,632,177		
04/05/11		11,045,838	0		8.0	0.40	0.380	688,903	7.8	1.10	1,637,351	7.7	0.21
04/16/11		11,138,592	92,754					710,138			1,708,997		
04/26/11		11,216,566	77,974					731,830			1,771,918		
04/29/11		11,258,391	41,825					743,289			1,804,105		
04/29/11		11,262,451	4,060					744,757			1,807,043		
	05/02/11	11,274,169		<b>April</b>									
05/02/11		11,277,586	15,135	<b>250,878</b>				750,559			1,818,009		
05/03/11		11,277,586	0		7.8	0.37	0.338	751,514	7.6	0.68	1,819,601	7.8	0.20
05/16/11		11,310,055	32,469					763,336			1,841,085		
05/17/11		11,311,520	1,465					763,807			1,842,263		

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N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	06/01/11	11,344,383		<b>May</b>									
06/02/11		11,347,664	36,144	<b>70,214</b>				778,512			1,868,238		
06/06/11		11,354,057	6,393					781,832			1,872,152		
06/07/11		11,354,057	0		7.7	0.46	0.447	782,305	7.6	0.85	1,872,545	7.7	0.14
06/17/11		11,368,867	14,810					788,961			1,881,915		
06/20/11		11,373,134	4,267					790,860			1,884,626		
	07/01/11	11,419,112		<b>June</b>									
07/04/11		11,434,679	61,545	<b>74,729</b>				811,146			1,932,424		
07/05/11		11,434,679	0		7.9	0.78	0.752	811,621	7.6	1.50	1,933,199	7.5	0.19
07/18/11		11,450,616	15,937					818,915			1,942,544		
07/27/11		11,470,412	19,796					825,753			1,958,375		
07/28/11		11,473,213	2,801					826,666			1,960,688		
	08/01/11	11,483,192		<b>July</b>									
08/01/11		11,484,004	10,791	<b>64,080</b>				830,795			1,968,801		
08/02/11		11,484,004	0		7.9	0.86	0.800	831,711	7.5	1.26	1,970,342	7.5	0.42
08/04/11		11,492,474	8,470					834,025			1,975,014		
08/05/11		11,493,370	896					834,506			1,975,820		
08/15/11		11,509,618	16,248					841,800			1,986,618		
08/31/11		11,524,004	14,386					849,495			1,994,794		
	09/01/11	11,524,179		<b>August</b>									
09/01/11		11,524,431	427	<b>40,987</b>				849,948			1,994,794		
09/03/11								850,953			1,997,262		
09/05/11		11,533,935	9,504					852,322			2,003,014		
09/06/11		11,533,935	0		8.0	1.2	1.180	852,778	7.7	1.65	2,004,161	7.7	0.55
09/08/11		11,538,054	4,119					854,174			2,005,726		
09/19/11		11,547,336	9,282					859,158			2,011,134		
09/20/11		11,548,416	1,080					859,611			2,011,902		
09/28/11		11,562,993	14,577					863,696			2,024,247		
	10/01/11	11,568,104		<b>September</b>									
10/03/11		11,572,412	9,419	<b>43,925</b>				867,344			2,031,123		
10/04/11		11,574,566	2,154					868,253			2,032,650		
10/05/11		11,574,566	0					868,707			2,033,029		
10/06/11		11,574,566	0					869,161			2,033,785		
10/08/11		11,579,097	4,531					870,519			2,036,082		
10/10/11		11,579,097	0		7.5	1.2	1.090	870,972	7.4	2.15	2,036,082	7.5	0.22
10/26/11		11,603,315	24,218					879,056			2,054,141		
10/30/11		11,606,358	3,043					880,416			2,055,759		
	11/01/11	11,607,509		<b>October</b>			<b>Pounds Cr</b>						
11/01/11		11,608,102	1,744	<b>39,405</b>			<b>0.358</b>	881,323			2,055,759		
11/02/11		11,608,233	131					881,362			2,055,792		
11/03/11		11,608,233	0		8.2	1.3	1.220	881,378	8.1	2.46	2,055,818	8.0	0.03
11/05/11		11,611,395	3,162					882,340			2,059,467		
11/06/11		11,614,756	3,361					883,608			2,062,594		
11/07/11		11,616,924	2,168					883,718			2,063,343		
11/08/11		11,618,636	1,712					884,345			2,065,014		
11/12/11		11,651,616	32,980					890,384			2,094,235		
11/15/11		11,662,529	10,913					894,135			2,102,462		
11/23/11		11,677,899	15,370					900,936			2,112,833		
11/29/11		11,687,640	9,741				<b>Pounds Cr</b>	905,028			2,119,690		
	12/01/11	11,689,609		<b>November</b>			<b>0.834</b>						
12/01/11		11,687,640	0	<b>82,100</b>	7.4	1.7	1.700	905,938	7.8	2.65	2,119,690	8.0	0.72
12/06/11		11,706,691	19,051					910,893			2,134,888		
12/15/11		11,724,224	17,533					918,198			2,147,141		
12/26/11		11,737,368	13,144					924,102			2,155,863		
12/31/11		11,742,107	4,739					926,371			2,158,911		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	<b>01/01/12</b>	<b>11,742,204</b>		<b>December</b>			<b>Pounds Cr</b>						
01/04/12		11,744,667	2,560	<b>52,595</b>			<b>0.745</b>	927,731			2,158,911		
01/05/12		11,744,667	0		6.9	0.98	0.862	928,184	7.5	1.84	2,161,198	7.3	0.27
01/19/12		11,754,619	9,952					932,303			2,166,977		
01/27/12		11,758,987	4,368					934,572			2,169,652		
01/31/12		11,761,124	2,137				<b>Pounds Cr</b>	935,480			2,171,180		
	<b>02/01/12</b>	<b>11,761,228</b>		<b>January</b>			<b>0.137</b>						
02/02/12		11,761,124	0	<b>19,024</b>	7.4	2.1	1.860	936,191	7.7	2.50	2,172,687	7.7	6.1
02/07/12		11,763,586	2,358					938,043		2.80	2,176,546		1.71
02/22/12		11,778,355	14,769					941,736			2,183,827		
02/24/12		11,780,157	16,571					942,642			2,184,964		
02/28/12		11,782,379	18,793				<b>Pounds Cr</b>	943,547			2,186,478		
	<b>03/01/12</b>	<b>11,783,379</b>		<b>February</b>			<b>0.329</b>						
03/01/12		11,782,379	0	<b>21,255</b>	7.1	2.6	2.560	944,002	7.3	3.45	2,186,478	7.6	2.04
03/14/12		11,824,851	41,472					956,400			2,221,364		
03/21/12		11,839,925	15,074					962,783			2,231,770		
03/25/12		11,848,965	9,040					965,591			2,239,149		
	<b>04/01/12</b>	<b>11,865,023</b>		<b>March</b>			<b>Pounds Cr</b>						
04/03/12		11,871,806	22,841	<b>81,644</b>			<b>1.740</b>	973,817			2,256,557		
04/05/12		11,871,806	6,783		7.6	0.83	0.730	975,189	7.9	1.28	2,258,866	7.8	0.48
04/18/12		11,896,899	25,093					984,322			2,273,887		
04/21/12		11,906,449	9,550					986,147			2,282,902		
	<b>05/01/12</b>	<b>11,923,538</b>		<b>April</b>			<b>Pounds Cr</b>						
05/02/12		11,930,935	24,486	<b>58,515</b>			<b>0.356</b>	996,194			2,300,258		
05/03/12		11,933,848	2,913					997,107			2,302,572		
05/09/12		11,989,964	56,116					1,010,822			2,349,979		
05/14/12		12,005,061	15,097					1,016,338			2,361,277		
05/16/12		12,005,061	0		6.5	0.67	0.581	1,018,169	7.4	0.63	2,363,951	7.6	0.15
05/20/12		12,016,709	11,648					1,021,100			2,368,989		
05/22/12		12,018,570	1,861					1,022,007			2,370,141		
05/24/12		12,021,249	2,679					1,023,245			2,372,066		
05/31/12		12,028,808	7,559					1,027,317			2,378,556		
	<b>06/01/12</b>	<b>12,029,342</b>		<b>May</b>			<b>Pounds Cr</b>						
06/02/12		12,030,994	2,186	<b>105,804</b>			<b>0.512</b>	1,027,317			2,378,556		
06/05/12		12,033,617	2,623					1,028,676			2,380,101		
06/07/12		12,033,617	0		6.8	0.55	0.507	1,029,581	7.4	0.99	2,381,259	7.7	0.17
06/19/12		12,046,851	13,234					1,034,134			2,389,253		
06/29/12		12,056,747	9,896					1,038,653			2,395,689		
	<b>07/01/12</b>	<b>12,057,998</b>		<b>June</b>			<b>Pounds Cr</b>						
07/03/12		12,059,332	1,334	<b>28,656</b>			<b>0.121</b>	1,040,009			2,397,210		
07/05/12		12,059,332	0		6.1	0.98	0.906	1,040,913	6.2	1.24	2,397,969	6.6	0.19
07/10/12		12,064,003	4,671					1,042,739			2,402,552		
07/20/12		12,069,263	5,260					1,045,446			2,402,552		
	<b>08/01/12</b>	<b>12,078,083</b>		<b>July</b>			<b>Pounds Cr</b>						
08/01/12		12,078,359	9,096	<b>20,085</b>			<b>0.152</b>	1,049,510			2,408,561		
08/02/12		12,078,359	0		6.2	1.20	1.120	1,049,969	6.2	1.72	2,408,954	6.0	0.56
08/07/12		12,082,510	4,151					1,051,808			2,410,869		
08/16/12		12,098,108	15,598					1,056,800			2,423,447		
	<b>09/01/12</b>	<b>12,111,167</b>		<b>August</b>			<b>Pounds Cr</b>						
09/01/12		12,111,772	13,664	<b>33,084</b>			<b>0.309</b>	1,063,135			2,432,088		
09/09/12		12,116,611	4,839					1,065,875			2,434,745		
09/11/12		12,117,783	1,172			1.70	1.520	1,066,747	6.4	0.72	2,435,127	6.3	0.21
09/18/12		12,121,226	3,443					1,068,577			2,437,061		
09/26/12		12,125,024	3,798					1,070,837			2,438,957		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	<b>10/01/12</b>	<b>12,126,164</b>		<b>September</b>			<b>Pounds Cr</b>						
10/04/12		12,127,304	2,280	<b>14,997</b>			<b>0.190</b>	1,072,193			2,440,091		
10/04/12		12,127,304	1,140			1.50	1.370	1,072,193	6.4	1.44	2,440,091	6.2	0.32
10/05/12		12,129,085	1,781					1,073,276			2,440,999		
10/09/12		12,129,791	706					1,073,696			2,441,370		
10/19/12		12,163,907	34,116					1,081,043			2,471,345		
10/30/12		12,189,653	25,746					1,092,239			1,289,448		
	<b>11/01/12</b>	<b>12,191,094</b>		<b>October</b>			<b>Pounds Cr</b>						
11/06/12		12,196,769	7,116	<b>64,930</b>			<b>0.741</b>	1,096,343			2,493,654		
11/09/12		12,198,437	1,668		NA	1.1	1.040	1,097,450	NA	1.34	2,494,750	NA	0.21
11/22/12		12,212,741	14,304					1,103,179			2,504,679		
11/30/12		12,218,011	5,270					1,106,155			2,507,598		
	<b>12/01/12</b>	<b>12,218,663</b>		<b>November</b>			<b>Pounds Cr</b>						
12/03/12		12,219,752	1,089	<b>27,569</b>			<b>0.239</b>	1,107,006			2,508,689		
12/10/12		12,223,289	3,537		8.0	1.00	1.100	1,109,121	7.7	1.60	2,510,506	8.0	0.27
12/26/12		12,234,632	11,343					1,114,683			2,517,462		
12/31/12		12,239,248	4,616					1,117,237			2,520,012		
	<b>01/01/13</b>	<b>12,239,543</b>		<b>December</b>			<b>Pounds Cr</b>						
01/01/13		12,239,958	710	<b>20,880</b>			<b>0.191</b>	1,117,663			2,520,377		
01/10/13		12,246,590	6,632			1.90	1.720	1,120,640	7.7	1.68	2,524,770	8.0	1.32
01/24/13		12,278,928	32,338					1,130,141			2,550,847		
01/28/13		12,282,035	3,107					1,131,414			2,553,042		
01/31/13		12,287,892	5,857					1,132,425			2,558,715		
	<b>02/01/13</b>	<b>12,288,247</b>		<b>January</b>			<b>Pounds Cr</b>						
02/01/13		12,289,018	1,126	<b>48,644</b>			<b>0.697</b>	1,132,680			2,559,456		
02/07/13		12,293,874	4,856		7.9	0.82	0.663	1,134,376	7.6	1.35	2,563,137	8.0	0.22
02/20/13		12,308,445	14,571					1,038,672			2,575,057		
02/27/13		12,313,181	19,307					1,140,359			2,578,725		
	<b>03/01/13</b>	<b>12,314,165</b>		<b>February</b>			<b>Pounds Cr</b>						
03/03/13		12,315,958	2,777	<b>25,918</b>			<b>0.143</b>	1,141,206			2,580,927		
03/07/13		12,318,024	2,066		7.9	0.83	0.753	1,142,054	7.7	1.44	2,582,395	7.8	0.27
03/18/13		12,361,201	43,177					1,151,536			2,619,703		
03/20/13		12,365,136	3,935					1,153,250			2,622,317		
03/27/13		12,378,442	13,306					1,159,233			2,630,884		
03/31/13		12,400,821	22,379					1,164,838			2,649,804		
	<b>04/01/13</b>	<b>12,403,728</b>		<b>March</b>			<b>Pounds Cr</b>						
04/01/13		12,407,465	3,737	<b>89,563</b>			<b>0.562</b>	1,165,570			2,655,346		
04/11/13		12,461,497	54,032		7.4	0.42	0.431	1,180,148	7.0	0.60	2,700,747	7.4	0.14
04/17/13		12,522,138	60,641					1,196,092			2,749,790		
	<b>05/01/13</b>	<b>12,570,545</b>		<b>April</b>			<b>Pounds Cr</b>						
05/01/13		---	---	<b>166,817</b>			<b>0.599</b>						
05/01/13		12,571,333	49,195		8.1	0.56	0.553	1,215,096	7.3	0.38	2,785,968	7.8	0.09
05/19/13		12,623,298	51,965					1,235,753			2,823,953		
	<b>06/01/13</b>	<b>12,647,282</b>		<b>May</b>			<b>Pounds Cr</b>						
				<b>76,737</b>			<b>0.353</b>						
06/06/13		12,657,605	34,307		7.6	0.96	0.826	1,251,551	7.4	0.47	2,849,502	7.8	0.73
06/12/13		12,669,485	11,880					1,256,351			2,857,966		
06/17/13		12,680,642	11,157					1,259,722			2,867,078		
	<b>07/01/13</b>	<b>12,727,950</b>		<b>June</b>			<b>Pounds Cr</b>						
				<b>80,668</b>			<b>0.555</b>						
07/18/13		12,767,116	86,474		7.4	0.73	0.694	1,286,165	6.7	0.73	2,938,280	7.5	0.07
07/31/13		12,780,876	13,760					1,293,015			2,947,351		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	08/01/13	12,781,814		July 53,864			Pounds Cr 0.311						
08/04/13		12,784,628	3,752					1,293,015			2,947,351		
08/07/13		12,786,184	1,556					1,295,588			2,951,110		
08/08/13		12,786,555	371		7.5	0.83	0.775	1,296,442	6.8	0.68	2,951,801	7.2	0.16
08/19/13		12,795,058	8,503					1,298,966			2,954,811		
08/21/13		12,795,638	580					1,300,287			2,956,243		
08/26/13		12,797,295	1,657					1,301,154			2,957,147		
08/28/13		12,800,434	3,139					1,302,541			2,958,987		
	09/01/13	12,803,511		August 21,697			Pounds Cr 0.140						
09/01/13		12,803,511	6,216					1,303,580			2,961,265		
09/05/13		12,808,096	4,585					1,305,282			2,964,435		
09/09/13		12,811,883	8,372					1,306,947			2,966,675		
09/11/13		12,815,166	7,070					1,309,139			2,968,968		
09/14/13		12,818,151	6,268					1,310,005			2,970,501		
09/18/13		12,822,283	7,117		7.3	1.3	1.170	1,311,729	7.1	0.99	2,973,533	7.3	0.19
09/30/13		12,833,637	11,354					1,317,815			2,980,475		
	10/01/13	12,834,025		September 30,514			Pounds Cr 0.297						
10/01/13		12,834,025	388					1,318,244			2,980,475		
10/08/13		12,843,796	9,771					1,321,693			2,988,064		
10/16/13		12,852,554	8,758					1,325,559			2,994,143		
10/18/13		12,855,027	2,473		7.7	1.20	1.120	1,326,419	7.5	1.04	2,996,041	7.8	0.14
	11/01/13	12,867,815		October 33,790			Pounds Cr 0.315						
11/01/13		12,867,815	12,788					1,332,902			3,004,777		
11/05/13		12,876,841	9,026					1,335,488			3,012,422		
11/13/13		12,903,367	26,526		7.8	1.00	0.920	1,345,039	8.1	0.66	3,033,152	7.9	0.11
11/20/13		12,924,566	21,199					1,350,740			3,051,316		
	12/01/13	12,940,971		November 73,156			Pounds Cr 0.560						
12/02/13		12,944,252	19,686					1,360,688			3,063,995		
12/10/13		12,954,971	10,719		7.6	1.4	1.320	1,365,411	7.4	2.70	3,071,689	7.1	0.07
12/12/13		12,957,411	2,440					1,366,744			3,073,244		
12/23/13		12,965,941	8,530					1,371,029			3,078,956		
12/31/13		12,970,459	4,518					1,373,592			3,081,611		
	01/01/14	12,970,599		December 29,628			Pounds Cr 0.326						
01/01/14		12,970,772	313					1,373,592			3,081,991		
01/15/14		12,976,884	6,112		7.5	1.2	1.050	1,376,582	7.1	2.20	3,086,176	7.6	0.11
01/31/14		12,983,061	6,177					1,379,605			3,090,406		
	02/01/14	12,983,265		January 12,666			Pounds Cr 0.111						
02/02/14		12,983,747	686					1,380,032			3,090,789		
02/13/14		12,987,155	3,408		8.0	1.8	1.610	1,381,726	8.1	2.88	3,093,093	8.3	0.19
02/28/14		12,993,603	6,448										
	03/01/14	12,993,783		February 10,518			Pounds Cr 0.141						
03/01/14		12,993,909	306										
03/13/14		13,005,882	11,973		7.6	0.38	0.434	1,385,639	7.7	5.80	3,112,477	8.0	0.30
03/31/14		13,059,539	53,657										
	04/01/14	13,059,979		March 66,196			Pounds Cr 0.239						
04/01/14		13,061,650	2,111					1,399,014			3,165,447		
04/12/14		13,091,485	29,835					1,411,117			3,187,701		
04/13/14		13,099,571	8,086					1,412,822			3,195,631		
04/15/14		13,135,912	36,341					1,424,711			3,224,028		
04/18/14		13,165,955	30,043					1,434,115			3,247,300		
04/22/14		13,210,016	44,061		7.6	0.44	0.377	1,440,204	7.4	0.72	3,258,396	7.5	0.31
	05/01/14	13,211,258		April 151,279			Pounds Cr 0.475						
05/01/14		13,211,345	1,329					1,451,524			3,282,450		
05/13/14		13,267,656	56,311		7.5	0.28	0.273	1,471,868	7.3	0.73	3,326,392	7.4	0.20
05/14/14		13,280,912	13,256					1,475,015			3,337,773		
05/15/14		13,286,754	5,842					1,476,780			3,342,511		
05/20/14		13,304,068	17,314					1,483,692			3,355,729		
	06/01/14	13,332,599		May 121,341			Pounds Cr 0.276						
06/02/14		13,336,115	32,047					1,495,755			3,382,176		
06/12/14		13,372,027	35,912		7.9	0.40	0.381	1,508,756	7.6	0.60	3,410,073	7.8	0.20
06/14/14		13,374,936	2,909					1,510,080			3,412,070		
06/17/14		13,379,348	4,412					1,512,220			3,415,268		
06/19/14		13,394,274	14,926					1,514,826			3,429,626		
06/20/14		13,401,646	7,372					1,517,014			3,436,003		
06/30/14		13,444,046	42,400					1,531,745			3,470,067		
	07/01/14	13,445,046		June 112,447			Pounds Cr 0.357						
07/01/14		13,446,138	2,092					1,532,601			3,472,302		

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N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
07/02/14		13,449,088	2,950					1,533,460			3,475,127		
07/09/14		13,463,816	14,728		7.7	0.68	0.689	1,539,906	7.4	1.0	3,486,800	7.4	1.0
07/14/14		13,472,104	8,288					1,543,805			3,492,830		
07/28/14		13,480,642	8,538	<b>July</b>			<b>Pounds Cr</b>	1,551,065			3,501,179		
	08/01/14	13,481,746		<b>36,700</b>			<b>0.211</b>						
08/01/14		13,481,837	1,195					1,552,341			3,502,760		
08/13/14		13,495,032	13,195		7.9	0.681	0.72	1,557,877	7.5	1.16	3,511,069	7.7	0.92
08/17/14		13,502,593	7,561					1,560,483			3,517,406		
08/19/14		13,509,446	6,853					1,562,278			3,523,163		
08/20/14		13,517,300	7,854					1,563,989			3,530,111		
08/22/14		13,525,676	8,376					1,567,014			3,536,533		
08/25/14		13,534,424	8,748					1,571,333			3,542,173		
08/29/14		13,539,488	5,064					1,573,914			3,545,371		
08/30/14		13,542,314	2,826	<b>August</b>			<b>Pounds Cr</b>	1,575,198			3,547,361		
	09/01/14	13,543,999		<b>62,253</b>			<b>0.37</b>						
09/02/14		13,546,601	4,287					1,577,338			3,550,419		
09/05/14		13,550,482	3,881					1,579,481			3,553,370		
09/08/14		13,562,709	12,227					1,582,918			3,564,025		
09/17/14		13,579,703	16,994		7.9	0.60	0.546	1,589,348	7.6	1.16	3,577,644	7.3	0.36
09/24/14		13,593,114	13,411	<b>September</b>			<b>Pounds Cr</b>	1,595,011			3,577,644		
	10/01/14	13,602,541		<b>58,542</b>			<b>0.27</b>	1,600,155			3,577,644		
10/01/14		13,603,009	9,895					1,600,155			3,577,644		
10/16/14		13,633,400	30,391		7.3	0.67	0.596	1,610,440	7.8	1.28	3,619,044	7.4	0.36
10/28/14		13,658,462	25,062	<b>October</b>			<b>Pounds Cr</b>	1,621,724			3,636,660		
	11/01/14	13,662,568		<b>60,027</b>			<b>0.298</b>						
11/01/14		13,663,621	5,159					1,624,238			3,640,194		
11/12/14		13,672,756	9,135		8.1	1.1	0.980	1,629,780	7.6	1.62	3,648,121	8.1	1.08
11/30/14		13,695,977	23,221					1,640,533			3,663,353		
	12/01/14	13,696,416		<b>November</b>			<b>Pounds Cr</b>						
12/01/14		13,697,118	1,141	<b>37,515</b>			<b>0.306</b>	1,640,533			3,663,353		
12/04/14		13,701,386	4,268					1,643,108			3,666,947		
12/08/14		13,705,980	4,594					1,645,245			3,670,118		
12/12/14		13,709,486	3,506		8.1	1.5	1.320	1,646,957	7.7	2.72	3,672,490	8.5	0.35
12/31/14		13,768,265	58,779					1,666,522			3,720,581		
	01/01/15	13,769,665		<b>December</b>			<b>Pounds Cr</b>						
01/01/15		13,770,654	2,389	<b>73,249</b>			<b>0.805</b>	1,667,388			3,722,195		
01/12/15		13,785,790	15,136		8.2	0.65	0.597	1,674,271	7.8	1.36	3,733,018	7.3	0.20
01/31/15		13,798,407	12,617					1,679,866			3,742,191		
	02/01/15	13,796,602		<b>January</b>			<b>Pounds Cr</b>						
02/01/15		13,798,727	320	<b>28,937</b>			<b>0.144</b>	1,679,866			3,742,588		
02/04/15		13,800,127	1,400		8.1	0.74	0.721	1,680,719	7.9	1.48	3,743,379	7.1	0.17
02/16/15		13,804,943	4,816					1,682,892			3,746,962		
02/20/15		13,805,957	1,014					1,683,320			3,747,752		
02/24/15		13,806,974	1,017					1,683,745			3,748,542		
02/28/15		13,808,369	1,395					1,684,600			3,749,334		
	03/01/15	13,808,507		<b>February</b>			<b>Pounds Cr</b>						
03/01/15		13,808,690	321	<b>9,905</b>			<b>0.059</b>	1,684,600			3,749,728		
03/18/15		13,815,075	6,385		8.2	0.80	0.713	1,687,150	7.2	1.00	3,757,618	8.0	0.34
03/23/15		13,815,928	853					1,688,046			3,759,604		
03/25/15		13,816,332	404					1,688,901			3,759,889		
03/26/15		13,816,697	365					1,689,329			3,760,382		
	04/01/15	13,822,714		<b>March</b>			<b>Pounds Cr</b>						
04/07/15		13,823,071	6,374	<b>14,207</b>			<b>0.084</b>	1,694,467			3,765,931		
04/15/15		13,856,854	33,783		7.4	0.92	0.858	1,704,938	7.7	1.92	3,792,943	7.0	0.25
04/30/15		13,885,187	28,333					1,718,370			3,812,262		
	05/01/15	13,885,585		<b>April</b>			<b>Pounds Cr</b>						
05/04/15		13,889,467	4,280	<b>62,871</b>			<b>0.449</b>	1,720,520			3,815,063		
05/13/15		13,898,048	8,581		8.0	0.60	0.554	1,724,812	7.8	0.92	3,820,667	8.1	0.37
05/18/15		13,905,897	7,849					1,727,444			3,827,133		
05/19/15		13,909,365	3,468					1,728,740			3,830,304		
05/23/15		13,914,964	5,599					1,731,329			3,834,357		
05/25/15		13,920,921	5,957					1,733,052			3,839,818		
05/28/15		13,937,530	16,609					1,736,965			3,854,997		
	06/01/15	13,958,452		<b>May</b>			<b>Pounds Cr</b>						
06/02/15		13,967,174	29,644	<b>72,867</b>			<b>0.336</b>	1,746,201			3,878,793		
06/03/15		13,970,819	3,645					1,747,948			3,881,197		
06/10/15		13,986,712	15,893		7.4	0.60	0.547	1,755,299	7.1	0.66	3,892,044	7.2	0.27
06/16/15		14,018,102	31,390					1,765,062			3,917,649		
06/19/15		14,042,191	24,089					1,772,128			3,937,351		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
06/28/15		14,066,780	24,589					1,781,741			3,956,167		
06/30/15		14,069,200	2,420					1,783,061			3,957,962		
	07/01/15	14,069,642		June			Pounds Cr						
07/01/15		14,069,914	714	111,190			0.506	1,783,061			3,957,962		
07/08/15		14,077,301	7,387		7.7	0.37	0.351	1,787,623	7.2	0.68	3,963,593	7.5	0.23
07/14/15		14,085,720	8,419					1,790,678			3,970,192		
07/29/15		14,114,029	28,309					1,804,056			3,993,110		
	08/01/15	14,115,454		July			Pounds Cr						
08/05/15		14,117,883	3,854	45,812			0.134	1,807,395			3,995,776		
08/12/15		14,131,529	13,646			0.41	0.371	1,812,749	7.2	0.51	4,006,460	7.1	0.19
08/17/15		14,137,372	5,843					1,816,582			4,010,201		
08/18/15		14,138,406	1,034					1,817,349			4,011,060		
08/27/15		14,145,800	7,394					1,822,802			4,016,771		
	09/01/15	14,151,425		August			Pounds Cr						
09/04/15		14,155,393	9,593	35,971			0.111	1,828,088			4,025,183		
09/09/15		14,175,870	20,477		7.6	0.23	0.208	1,833,613	7.2	0.72	4,041,266	7.0	0.14
09/18/15		14,191,902	16,032					1,843,839			4,055,798		
09/28/15		14,211,188	19,286					1,852,031			4,069,063		
09/29/15		14,211,559	371					1,852,459			4,069,894		
	10/01/15	14,212,577		September			Pounds Cr						
10/01/15		14,212,781	1,222	61,152			0.106	1,853,738			4,071,365		
10/07/15		14,220,473	7,692			0.72	0.661	1,856,721	7.2	1.26	4,071,365	7.3	0.16
10/13/15		14,226,617	6,144					1,859,329			4,079,148		
10/21/15		14,233,700	7,083					1,863,168			4,082,924		
10/27/15		14,241,197	7,497					1,865,726			4,088,517		
	11/01/15	14,260,606		October			Pounds Cr						
11/02/15		14,266,255	25,058	48,029			0.264	1,872,203			4,108,562		
11/12/15		14,288,543	22,288		7.7	0.73	0.700	1,882,551	7.3	1.20	4,122,107	7.6	0.26
11/30/15		14,334,387	45,844					1,898,090			4,155,815		
	12/01/15	14,336,677		November			Pounds Cr						
12/01/15		14,339,197	4,810	76,072			0.443	1,899,821			4,159,227		
12/10/15		14,364,604	25,407		7.9	0.69	0.627	1,910,218	7.4	0.66	4,176,267	7.3	0.30
12/21/15		14,458,622	94,018					1,937,179			4,246,823		
	01/01/16	14,487,544		December			Pounds Cr						
01/01/16		14,488,585	29,963	150,867			0.788	1,949,306			4,267,333		
01/07/16		14,499,288	10,703		7.9	0.62	0.572	1,954,033	7.4	0.87	4,274,451	7.6	0.40
	02/01/16	14,532,622		January			Pounds Cr						

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
02/01/16		14,533,138	33,850	<b>45,078</b>			<b>0.215</b>	1,971,254			4,316,580		
02/10/16		14,562,012	28,874		8.1	0.87	0.858	1,973,902	7.6	0.61	4,324,057	8.1	0.70
02/29/16		14,601,368	39,356					1,982,872			4,359,110		
	03/01/16	14,602,713		<b>February</b>			<b>Pounds Cr</b>						
03/01/16		14,603,747	2,379	<b>70,091</b>			<b>0.501</b>	1,983,300			4,361,401		
03/10/16		14,625,282	21,535		7.9	0.63	0.609	1,988,471	7.3	1.44	4,380,928	7.4	0.37
03/31/16		14,728,685	103,403					2,017,845			4,463,804		
	04/01/16	14,733,540		<b>March</b>			<b>Pounds Cr</b>						
04/02/16		14,751,888	23,203	<b>130,827</b>			<b>0.663</b>	2,023,638			4,482,114		
04/06/16		14,770,034	18,146		7.8	0.38	0.244	2,029,748	7.2	0.53	4,495,836	7.2	0.24
	05/01/16	14,827,634		<b>April</b>			<b>Pounds Cr</b>						
05/03/16		14,834,742	64,708	<b>94,094</b>			<b>0.191</b>	2,057,059			4,539,976		
05/12/16		14,846,704	19,070		7.6	0.70	0.645	2,062,615	7.2	0.47	4,547,811	7.1	0.69
05/17/16		14,856,181	9,477					2,067,406			4,553,472		
	06/01/16	14,889,570		<b>May</b>			<b>Pounds Cr</b>						
06/06/16		14,902,417	46,236	<b>61,936</b>			<b>0.333</b>	2,086,371			4,585,701		
06/08/16		14,906,067	3,650		7.5	0.43	0.406	2,088,096	7.1	0.69	4,587,959	7.1	0.25
06/19/16		14,946,108	40,041					2,101,451			4,617,396		
	07/01/16	14,980,911		<b>June</b>			<b>Pounds Cr</b>						
07/01/16		14,983,214	37,106	<b>91,341</b>			<b>0.309</b>	2,113,474			4,646,051		
07/07/16		14,998,455	15,241		7.4	0.50	0.430	2,119,487	7.0	0.87	4,656,766	7.1	0.20
07/31/16		15,036,518	38,063					2,138,364			4,681,191		
	08/01/16	15,036,760		<b>July</b>			<b>Pounds Cr</b>						
08/01/16		15,037,244	726	<b>55,849</b>			<b>0.200</b>	2,138,788			4,682,282		
08/11/16		15,047,013	9,769		7.4	0.61	0.583	2,144,319	7.1	0.98	4,687,103	7.1	0.12
08/24/16		15,065,460	18,447					2,152,060			4,700,186		
	09/01/16	15,080,715		<b>August</b>			<b>Pounds Cr</b>						
09/02/16		15,081,239	15,779	<b>43,955</b>			<b>0.213</b>	2,159,787			4,709,523		
09/08/16		15,093,858	12,619		7.2	0.41	0.355	2,164,508	7.1	0.60	4,718,876	6.9	0.17
09/15/16		15,117,114	23,256					2,173,196			4,734,824		
09/30/16		15,161,513	44,399					2,190,037			4,766,164		
	10/01/16	15,162,610		<b>September</b>			<b>Pounds Cr</b>						
10/01/16		15,162,976	1,463	<b>81,895</b>			<b>0.242</b>	2,190,896			4,766,917		
10/05/16		15,170,280	7,304		7.5	0.76	0.707	2,194,329	7.1	1.17	4,771,417	7.2	0.24
	11/01/16	15,218,316		<b>October</b>			<b>Pounds Cr</b>						
11/01/16		15,218,916	48,636	<b>55,706</b>			<b>0.328</b>	2,214,974			4,803,706		
11/09/16		15,231,072	12,156		7.7	0.58	0.550	2,221,415	7.3	1.02	4,810,434	7.2	0.17
11/30/16		15,257,768	26,696					2,231,705			4,829,512		
	12/01/16	15,259,593		<b>November</b>			<b>Pounds Cr</b>						
12/01/16		15,262,085	4,317	<b>41,277</b>			<b>0.189</b>	2,233,005			4,832,948		
12/08/16		15,278,159	16,074		7.7	0.90	0.832	2,240,348	7.4	1.41	4,843,138	7.3	0.26
	01/01/17	15,320,273		<b>December</b>			<b>Pounds Cr</b>						
01/05/17		15,328,203	50,044	<b>60,680</b>			<b>0.420</b>						
01/05/17		15,328,203	0			1.00	0.895	2,259,750	7.5	1.44	4,878,940	7.4	0.47
01/31/17		15,387,622	59,419					2,272,198			4,933,594		
	02/01/17	15,387,845		<b>January</b>			<b>Pounds Cr</b>						
02/01/17		15,388,387	765	<b>67,572</b>			<b>0.504</b>	2,272,625			4,933,971		
02/09/17		15,399,455	11,068		7.8	0.56	0.542	2,277,351	7.5	0.99	4,941,836	7.1	0.13
	03/01/17	15,452,749		<b>February</b>			<b>Pounds Cr</b>						
03/08/17		15,476,369	76,914	<b>64,904</b>			<b>0.305</b>						
03/08/17		15,476,369	0		7.8	0.59	0.539	2,302,121	7.3	1.14	5,002,178	7.3	0.26
03/14/17		15,497,125	20,756					2,309,539			5,016,906		
03/25/17		15,528,765	31,640					2,321,231			5,039,669		
03/29/17		15,542,291	13,526					2,325,638			5,049,699		
	04/01/17	15,558,808		<b>March</b>			<b>Pounds Cr</b>						
04/02/17		15,562,275	19,984	<b>106,059</b>			<b>0.476</b>	2,333,037			5,064,049		
04/06/17		15,582,526	20,251		7.7	0.43	0.405	2,340,089	7.3	0.57	5,064,049	7.3	0.27
04/27/17		15,676,954	94,428					2,372,953			5,146,405		





**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis <sup>1</sup> (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
08/31/18		16,637,913	56,451					2,629,840			5,828,591		
	<i>09/01/18</i>	<i>16,640,165</i>		<b>August</b>			<b>Pounds Cr</b>						
09/01/18		16,641,711	3,798	<b>68,169</b>			<b>0.125</b>	2,631,151			5,831,336		
09/06/18		16,695,169	53,458		7.5	0.24	0.256	2,646,502	7.1	0.59	5,871,311	6.7	0.08
09/17/18		16,734,724	39,555					2,659,921			5,899,762		
09/18/18		16,738,499	3,775					2,660,806			5,903,277		
09/30/18		16,775,825	37,326					2,672,955			5,932,062		
	<i>10/01/18</i>	<i>16,776,168</i>		<b>September</b>			<b>Pounds Cr</b>						
10/01/18		16,776,700	875	<b>136,003</b>			<b>0.290</b>	2,673,387			5,932,454		
10/03/18		16,785,853	9,153		7.8	0.30	0.303	2,675,556	7.3	0.60	5,940,463	7.1	0.22
10/25/18		16,899,216	113,363					2,709,668			6,027,153		
	<i>11/01/18</i>	<i>16,908,245</i>		<b>October</b>			<b>Pounds Cr</b>						
11/01/18		16,908,712	9,496	<b>132,077</b>			<b>0.333</b>	2,713,560			6,033,788		
11/07/18		16,921,099	12,387		7.7	0.38	0.424	2,717,458	7.1	0.36	6,044,211	6.8	0.34
11/12/18		16,936,140	15,041					2,723,181			6,054,634		
11/14/18		16,940,487	4,347					2,725,362			6,057,406		
11/16/18		16,944,318	3,831					2,727,099			6,059,771		
11/19/18		16,949,417	5,099					2,729,266			6,063,298		
	<i>12/01/18</i>	<i>16,964,903</i>		<b>November</b>			<b>Pounds Cr</b>						
12/06/18		16,972,133	22,716	<b>56,658</b>			<b>0.200</b>	2,738,784			6,080,566		
12/06/18		16,972,133	0		8.0	0.52	0.521	2,738,784	7.4	0.53	6,080,566	7.2	0.45
	<i>01/01/19</i>	<i>17,020,007</i>		<b>December</b>			<b>Pounds Cr</b>						
01/04/19		17,021,076	48,943	<b>55,104</b>			<b>0.239</b>	2,757,483			6,116,420		

Italicized red type metered discharge reading was calculated by linear interpolation to 12 midnight.

Industrial User (Wastewater Discharge) Permit 18-21 Outfall 001 Effluent Limits		
pH	Hexavalent Chromium	Total Chromium
Between 5.0 and 12.4 s.u.	<4.5 mg/L	<7.0 mg/L

<sup>1</sup> Beginning in September 2018, the Total Chromium lab sample was not filtered. Previously, through August 2018, the sample was filtered (0.45 micron filter).

\* On 3/31/18, the MH1 flowmeter face was blank. Upon replacing the batteries, the totalizer reading reverted to 2,472,869 gallons, a difference of -112,848 gallons from the previous known total.



October 16, 2018

Scott Hodgson  
Terracon, Inc. - Franklin  
9856 South 57th Street  
Franklin, WI 53132

RE: Project: 58117057 MAUTHE  
Pace Project No.: 40177018

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40177018001	OUTFALL-001	Water	10/03/18 17:45	10/04/18 13:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE

Pace Project No.: 40177018

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40177018001	OUTFALL-001	EPA 6010	TXW	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58117057 MAUTHE

Pace Project No.: 40177018

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40177018001</b>	<b>OUTFALL-001</b>					
EPA 6010	Chromium	303	ug/L	10.0	10/13/18 15:36	
SM 3500-Cr B (Online)	Chromium, Hexavalent	0.30	mg/L	0.043	10/04/18 16:15	

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

**Method:** EPA 6010

**Description:** 6010 MET ICP

**Client:** Terracon, Inc. - Franklin

**Date:** October 16, 2018

**General Information:**

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

**Method:** SM 3500-Cr B (Online)

**Description:** Chromium, Hexavalent

**Client:** Terracon, Inc. - Franklin

**Date:** October 16, 2018

**General Information:**

1 sample was analyzed for SM 3500-Cr B (Online). All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

**Sample: OUTFALL-001**      **Lab ID: 40177018001**      Collected: 10/03/18 17:45      Received: 10/04/18 13:50      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>	Analytical Method: EPA 6010    Preparation Method: EPA 3010								
Chromium	<b>303</b>	ug/L	10.0	2.5	1	10/09/18 08:57	10/13/18 15:36	7440-47-3	
<b>Chromium, Hexavalent</b>	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<b>0.30</b>	mg/L	0.043	0.013	2.5		10/04/18 16:15		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40177018

QC Batch:	302570	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
Associated Lab Samples:	40177018001		

METHOD BLANK: 1767347 Matrix: Water  
Associated Lab Samples: 40177018001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	ug/L	<2.5	10.0	10/13/18 14:28	

LABORATORY CONTROL SAMPLE: 1767348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	500	471	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1767349 1767350

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40176998026 Result	Spike Conc.	Spike Conc.	Result						
Chromium	ug/L	10.0 U	500	500	459	485	91	97	75-125	6	20

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40177018

QC Batch: 302249

Analysis Method: SM 3500-Cr B (Online)

QC Batch Method: SM 3500-Cr B (Online)

Analysis Description: Chromium, Hexavalent by 3500

Associated Lab Samples: 40177018001

METHOD BLANK: 1765229

Matrix: Water

Associated Lab Samples: 40177018001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	10/04/18 16:15	

LABORATORY CONTROL SAMPLE: 1765230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1765231 1765232

Parameter	Units	1765231		1765232		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40177017001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Chromium, Hexavalent	mg/L	<0.0051	.3	.3	0.31	0.31	102	102	90-110	0	20	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE

Pace Project No.: 40177018

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40177018001	OUTFALL-001	EPA 3010	302570	EPA 6010	303115
40177018001	OUTFALL-001	SM 3500-Cr B (Online)	302249		

## REPORT OF LABORATORY ANALYSIS

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**Sample Preservation Receipt Form**

Client Name: Terracon Project # 105571

All containers needing preservation have been checked and noted below:  Yes  No  N/A


Initial when completed: [Signature] Date/Time: [Blank]

Lab Lot# of pH paper: 105571 Lab Sid #ID of preservation (if pH adjusted):

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

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:  Yes  No  N/A \*If yes look in headspace column

Headspace in VOA Vials (>6mm) :	4 oz amber jar unpres	4 oz clear jar unpres	4 oz plastic jar unpres	120 mL plastic Na Thiosulfate
AG1U	1 liter amber glass			
AG1H	1 liter amber glass HCL			
AG4S	125 mL amber glass H2SO4			
AG4U	120 mL amber glass unpres			
AG5U	100 mL amber glass unpres			
AG2S	500 mL amber glass H2SO4			
BG3U	250 mL clear glass unpres			
BP1U	1 liter plastic unpres			
BP2N	500 mL plastic HNO3			
BP2Z	500 mL plastic NaOH, Znact			
BP3U	250 mL plastic unpres			
BP3C	250 mL plastic NaOH			
BP3N	250 mL plastic HNO3			
BP3S	250 mL plastic H2SO4			
DG9A	40 mL amber ascorbic			
DG9T	40 mL amber Na Thio			
VG9U	40 mL clear vial unpres			
VG9H	40 mL clear vial HCL			
VG9M	40 mL clear vial MeOH			
VG9D	40 mL clear vial DI			
JGFU				
WGFU				
WPFU				
SP5T				
ZPLC				
GN:				

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

### Sample Condition Upon Receipt Form (SCUR)

Project #: \_\_\_\_\_

Client Name: Terracon

WO#: 40177018

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walto  
 Client  Pace Other: \_\_\_\_\_



Tracking #: \_\_\_\_\_

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

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR - NA    Type of Ice:  Wet  Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature    Uncorr: \_\_\_\_\_ /Corr: 20

Temp Blank Present:  yes  no

Biological Tissue is Frozen:  yes  no

Person examining contents:  
 Date: 10/4/18  
 Initials: [Signature]

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

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

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

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: used water soluble ink very hard to read labels  
[Signature]

Project Manager Review: AG DM    Date: 10/4/18

November 20, 2018

Scott Hodgson  
Terracon, Inc. - Franklin  
9856 South 57th Street  
Franklin, WI 53132

RE: Project: 58117057 MAUTHE  
Pace Project No.: 40179152

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40179152001	OUTFALL-001	Water	11/07/18 07:45	11/07/18 14:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE  
Pace Project No.: 40179152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40179152001	OUTFALL-001	EPA 6010	TXW	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58117057 MAUTHE

Pace Project No.: 40179152

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40179152001</b>	<b>OUTFALL-001</b>					
EPA 6010	Chromium	424	ug/L	10.0	11/16/18 16:42	
SM 3500-Cr B (Online)	Chromium, Hexavalent	0.38	mg/L	0.029	11/07/18 15:15	

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

**Method:** EPA 6010

**Description:** 6010 MET ICP

**Client:** Terracon, Inc. - Franklin

**Date:** November 20, 2018

**General Information:**

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

**Method:** SM 3500-Cr B (Online)

**Description:** Chromium, Hexavalent

**Client:** Terracon, Inc. - Franklin

**Date:** November 20, 2018

**General Information:**

1 sample was analyzed for SM 3500-Cr B (Online). All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

**Sample: OUTFALL-001**      **Lab ID: 40179152001**      Collected: 11/07/18 07:45      Received: 11/07/18 14:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010    Preparation Method: EPA 3010									
Chromium	<b>424</b>	ug/L	10.0	2.5	1	11/15/18 14:15	11/16/18 16:42	7440-47-3	
<b>Chromium, Hexavalent</b>									
Analytical Method: SM 3500-Cr B (Online)									
Chromium, Hexavalent	<b>0.38</b>	mg/L	0.029	0.0086	1.667		11/07/18 15:15		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40179152

QC Batch:	306750	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
Associated Lab Samples:	40179152001		

METHOD BLANK: 1793839 Matrix: Water  
Associated Lab Samples: 40179152001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	ug/L	<2.5	10.0	11/16/18 16:11	

LABORATORY CONTROL SAMPLE: 1793840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	500	499	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1793841 1793842

Parameter	Units	40179009001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Chromium	ug/L	<2.5	500	500	499	514	100	103	75-125	3	20

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE  
Pace Project No.: 40179152

QC Batch: 305750 Analysis Method: SM 3500-Cr B (Online)  
QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500  
Associated Lab Samples: 40179152001

METHOD BLANK: 1786739 Matrix: Water  
Associated Lab Samples: 40179152001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	11/07/18 10:30	

LABORATORY CONTROL SAMPLE: 1786740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1786741 1786742

Parameter	Units	40179083001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Chromium, Hexavalent	mg/L	<0.026	1.5	1.5	1.4	1.4	93	95	90-110	2	20		

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE

Pace Project No.: 40179152

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40179152001	OUTFALL-001	EPA 3010	306750	EPA 6010	306916
40179152001	OUTFALL-001	SM 3500-Cr B (Online)	305750		

### REPORT OF LABORATORY ANALYSIS

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# CHAIN OF CUSTODY

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

FILTERED?  
(YES/NO)

PRESERVATION  
(CODE)\*

Y/N  
Pick  
Letter

Analyses Requested

Matrix Codes

- A = Air
- B = Biota
- C = Charcoal
- D = Oil
- E = Soil
- F = Sludge
- G = Wipes
- H = Water
- I = Drinking Water
- J = Ground Water
- K = Surface Water
- L = Waste Water
- M = Wipes

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

PACE LAB # **001**  
 CLIENT FIELD ID **OUTFALL-001**  
 COLLECTION DATE **11/7/18** TIME **0745** MATRIX **WW**

*(Please Print Clearly)*

Company Name: **Terrason**  
 Branch/Location: **W. Lwaukee**  
 Project Contact: **Scott Hodgson**  
 Phone: **414-209-7240**  
 Project Number: **58117057**  
 Project Name: **MauThe**  
 Project State: **WI**  
 Sampled By (Print): **Scott A. Hodgson**  
 Sampled By (Sign): *Scott A. Hodgson*  
 PO #: **1**  
 Regulatory Program:

Quote #:  
 Mail To Contact:  
 Mail To Company:  
 Mail To Address:  
 Invoice To Contact:  
 Invoice To Company:  
 Invoice To Address:  
 Invoice To Phone:  
 CLIENT COMMENTS  
 LAB COMMENTS (Lab Use Only)  
 Profile #

40179152

*Spang*

Y/N	Pick Letter	Analyses Requested	Date/Time	Received By	Date/Time	Received By	Date/Time	Received By	Date/Time	Received By	Date/Time
N	N	Total Chromium	11/7/18	<i>Scott A. Hodgson</i>	0830	<i>Scott A. Hodgson</i>	1430	<i>Scott A. Hodgson</i>	1430	<i>Scott A. Hodgson</i>	1430
N	A	Hex Chromium	11/7/18	<i>Scott A. Hodgson</i>	0830	<i>Scott A. Hodgson</i>	1430	<i>Scott A. Hodgson</i>	1430	<i>Scott A. Hodgson</i>	1430

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed:  
 Transmit Prelim Rush Results by (complete what you want):  
 Email #1:  
 Telephone:  
 Fax:

Sample Project No. **40179152**  
 Receipt Temp = **70.1** °C  
 Sample Receipt pH **OK / Adjusted**  
 Cooler Custody Seal **Present / Not Present**  
 Intact / Not Intact

**Sample Preservation Receipt Form**

Client Name: TERACON Project # Y079152

All containers needing preservation have been checked and noted below: Yes  No  N/A  
 Lab Lot# of pH paper: 103268 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: JM Date/Time:

Pace Lab #	Glass								Plastic								Vials				Jars			General			VOA Vials (>6mm)	H2SO4 pH <2	NaOH+Zn Act pH >9	NaOH pH >12	HNO3 pH <2	pH after adjusted	Volume (mL)		
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JG9U	WG9U	WP9U	SP5T	ZPLC	GN									
001																																			2.5/5/10
002																																		2.5/5/10	
003																																		2.5/5/10	
004																																		2.5/5/10	
005																																		2.5/5/10	
006																																		2.5/5/10	
007																																		2.5/5/10	
008																																		2.5/5/10	
009																																		2.5/5/10	
010																																		2.5/5/10	
011																																		2.5/5/10	
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014																																		2.5/5/10	
015																																		2.5/5/10	
016																																		2.5/5/10	
017																																		2.5/5/10	
018																																		2.5/5/10	
019																																		2.5/5/10	
020																																		2.5/5/10	

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

Pace Lab #	Description	Material	Volume
AG1U	1 liter amber glass	BP1U	1 liter plastic unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4
DG9A	40 mL amber ascorbic	DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres	VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH	VG9D	40 mL clear vial DI
JG9U	4 oz amber jar unpres	JG9U	4 oz amber jar unpres
WG9U	4 oz clear jar unpres	WG9U	4 oz clear jar unpres
WP9U	4 oz plastic jar unpres	WP9U	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate	SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag	ZPLC	ziploc bag
GN:		GN:	





1241 Bellevue Street, Green Bay, WI 54302

Document Name:  
Sample Condition Upon Receipt (SCUR)

Document Revised: 25Apr2018

Document No.:  
F-GB-C-031-Rev.07

Issuing Authority:  
Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: TERRACON

WO#: **40179152**



40179152

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

Tracking #: \_\_\_\_\_

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

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

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

Cooler Temperature Uncorr: TCU /Corr: \_\_\_\_\_

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:

Date: 11/7/18  
Initials: JM

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>NO Pkg #</u> <u>JM 11/7/18</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		<u>client used H<sub>2</sub>O soluble ink JM 11/7/18</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

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

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: Kura for DM

Date: 11/7/18

December 18, 2018

Scott Hodgson  
Terracon, Inc. - Franklin  
9856 South 57th Street  
Franklin, WI 53132

RE: Project: 58117057 MAUTHE  
Pace Project No.: 40180569

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on December 06, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40180569001	OUTFALL-001	Water	12/06/18 07:50	12/06/18 13:40

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE  
Pace Project No.: 40180569

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40180569001	OUTFALL-001	EPA 6010	TXW	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58117057 MAUTHE  
Pace Project No.: 40180569

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40180569001</b>	<b>OUTFALL-001</b>					
EPA 6010	Chromium	521	ug/L	10.0	12/17/18 19:04	
SM 3500-Cr B (Online)	Chromium, Hexavalent	0.52	mg/L	0.043	12/06/18 14:45	

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

**Method:** EPA 6010

**Description:** 6010 MET ICP

**Client:** Terracon, Inc. - Franklin

**Date:** December 18, 2018

**General Information:**

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

**Method:** SM 3500-Cr B (Online)

**Description:** Chromium, Hexavalent

**Client:** Terracon, Inc. - Franklin

**Date:** December 18, 2018

**General Information:**

1 sample was analyzed for SM 3500-Cr B (Online). All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

**Sample: OUTFALL-001**      **Lab ID: 40180569001**      Collected: 12/06/18 07:50      Received: 12/06/18 13:40      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>	Analytical Method: EPA 6010    Preparation Method: EPA 3010								
Chromium	<b>521</b>	ug/L	10.0	2.5	1	12/13/18 15:19	12/17/18 19:04	7440-47-3	
<b>Chromium, Hexavalent</b>	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<b>0.52</b>	mg/L	0.043	0.013	2.5		12/06/18 14:45		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40180569

QC Batch:	309153	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
Associated Lab Samples:	40180569001		

METHOD BLANK: 1805695 Matrix: Water  
Associated Lab Samples: 40180569001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	ug/L	<2.5	10.0	12/17/18 18:37	

LABORATORY CONTROL SAMPLE: 1805696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	500	505	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1805697 1805698

Parameter	Units	40180472001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max		Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	
Chromium	ug/L	0.0044J mg/L	500	500	505	510	100	101	75-125	1	20	

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE  
Pace Project No.: 40180569

QC Batch: 308601 Analysis Method: SM 3500-Cr B (Online)  
QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500  
Associated Lab Samples: 40180569001

METHOD BLANK: 1802567 Matrix: Water  
Associated Lab Samples: 40180569001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	12/06/18 14:45	

LABORATORY CONTROL SAMPLE: 1802568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.3	0.31	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1802569 1802570

Parameter	Units	1802569		1802570		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chromium, Hexavalent	mg/L	0.52	0.75	1.3	1.3	98	100	90-110	1	20	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE

Pace Project No.: 40180569

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40180569001	OUTFALL-001	EPA 3010	309153	EPA 6010	309257
40180569001	OUTFALL-001	SM 3500-Cr B (Online)	308601		

## REPORT OF LABORATORY ANALYSIS

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# CHAIN OF CUSTODY

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

FILTERED?  
 (YES/NO)  
 PRESERVATION  
 (CODE)\*

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

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

**Matrix Codes**  
 W = Water  
 DW = Drinking Water  
 GW = Ground Water  
 SW = Surface Water  
 WW = Waste Water  
 WP = Wipe

**COLLECTION**  
 DATE: 12/18/07  
 TIME: 0750  
 MATRIX: W

PACE LAB # 001  
 CLIENT FIELD ID OUTFALL-001

Company Name: Terrace  
 Branch/Location: M: Leonalet  
 Project Contact: Scott Hodgson  
 Phone: 414-209-7246  
 Project Number: 58117057  
 Project Name: Maunty  
 Project State: WI  
 Sampled By (Print): Scott Hodgson  
 Sampled By (Sign): Scott A. Hodgson  
 PO #: \_\_\_\_\_

**Regulatory Program:** \_\_\_\_\_

Y	I	N	Pick Letter	Analyses Requested	DATE	TIME	MATRIX	CLIENT COMMENTS (Lab Use Only)	Profile #	Quote #:	Mail To Contact:	Mail To Company:	Mail To Address:	Invoice To Contact:	Invoice To Company:	Invoice To Address:	CLIENT COMMENTS	COMMENTS		

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

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

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

Relinquished By: Scott A. Hodgson Date/Time: 12/18/07 0830  
 Relinquished By: Scott A. Hodgson Date/Time: 12/18/07 1340  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: [Signature] Date/Time: [Signature]  
 Received By: [Signature] Date/Time: 12/18/07 1340  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. 40180569  
 Receipt Temp = 20 °C  
 Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present  
 Intact / Not Intact

**Sample Preservation Receipt Form**

Client Name: TENALON Project # 60180569

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper: 0157208 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

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

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



Document Name:  
**Sample Condition Upon Receipt (SCUR)**  
 Document No.:  
**F-GB-C-031-Rev.07**

Document Revised: 25Apr2018  
 Issuing Authority:  
 Pace Green Bay Quality Office

**Sample Condition Upon Receipt Form (SCUR)**

Project #:

Client Name: Terracon

**WO#: 40180569**

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waitco  
 Client  Pace Other: \_\_\_\_\_



Tracking #: \_\_\_\_\_

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

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used SR - NA Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: \_\_\_\_\_ /Corr: 20

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:  
 Date: 12/6/18  
 Initials: R

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

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

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Project Manager Review: KNA for DM

Date: 12/6/18