April 3, 2018

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 First Quarter Compliance Monitoring Report, Industrial User (Wastewater Discharge) Permit #15-21**
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. 15-21, issued on May 31, 2015. This report covers the period of January 1, 2018, through March 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 not collected by either the City of Appleton or Terracon. Historical results are presented in the attached Table 2.

As noted in the 2012 Fourth Quarter Process Compliance Report the system was replumbed in 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

submitted to Pace Analytical (Pace) laboratory (Green Bay, Wisconsin) for analysis of hexavalent chromium. An additional aliquot of the original sample was filtered through a 0.45 micron (µm) filter and then transferred to a clean, new 250-mL plastic bottle with nitric acid preservative provided by the laboratory. This filtered, preserved sample was submitted to Pace for analysis of total dissolved chromium. The laboratory analytic test reports and chain-of-custody record for each of the three monthly sampling rounds (January, February, and March 2018) 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 57,083 gallons with a mean daily flow of approximately 634 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.”

Please call (920-791-9206) or email (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/N:\Projects\2011\58117057\Working Files\Pre-Treatment Permit\Process Compliance reports\Terracon 2018\First Quarter\First 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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	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 (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	**45,078**			**0.215**	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*		**February**			**Pounds Cr**						
03/01/16		14,603,747	2,379	**70,091**			**0.501**	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*		**March**			**Pounds Cr**						
04/02/16		14,751,888	23,203	**130,827**			**0.663**	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*		**April**			**Pounds Cr**						
05/03/16		14,834,742	64,708	**94,094**			**0.191**	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*		**May**			**Pounds Cr**						
06/06/16		14,902,417	46,236	**61,936**			**0.333**	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*		**June**			**Pounds Cr**						
07/01/16		14,983,214	37,106	**91,341**			**0.309**	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*		**July**			**Pounds Cr**						
08/01/16		15,037,244	726	**55,849**			**0.200**	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*		**August**			**Pounds Cr**						
09/02/16		15,081,239	15,779	**43,955**			**0.213**	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*		**September**			**Pounds Cr**						
10/01/16		15,162,976	1,463	**81,895**			**0.242**	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*		**October**			**Pounds Cr**						
11/01/16		15,218,916	48,636	**55,706**			**0.328**	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*		**November**			**Pounds Cr**						
12/01/16		15,262,085	4,317	**41,277**			**0.189**	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*		**December**			**Pounds Cr**						
01/05/17		15,328,203	50,044	**60,680**			**0.420**						
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*		**January**			**Pounds Cr**						
02/01/17		15,388,387	765	**67,572**			**0.504**	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*		**February**			**Pounds Cr**						
03/08/17		15,476,369	76,914	**64,904**			**0.305**						
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*		**March**			**Pounds Cr**						
04/02/17		15,562,275	19,984	**106,059**			**0.476**	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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	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 (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)
	05/01/17	*15,703,639*		**April**			**Pounds Cr**						
05/04/17		15,728,166	51,212	**144,831**			**0.488**						
05/04/17		15,728,166	0		7.6	0.28	0.257	2,387,552	7.1	0.36	5,185,807	6.8	0.21
	06/01/17	*15,796,047*		**May**			**Pounds Cr**						
06/08/17		15,812,038	83,872	**92,408**			**0.198**						
06/08/17		15,812,038	0		7.5	0.35	0.325	2,421,837	7.1	0.36	5,243,312	7.2	0.16
	07/01/17	*15,888,740*		**June**			**Pounds Cr**						
07/01/17		15,891,390	79,352	**92,693**			**0.251**						
07/06/17		15,902,647	11,257		7.5	0.57	0.525	2,453,044	7.1	0.69	5,309,639	7.0	0.50
07/31/17		15,945,154	42,507					2,472,011			5,337,122		
	08/01/17	*15,945,504*		**July**			**Pounds Cr**						
08/01/17		15,945,880	726	**56,764**			**0.248**	2,472,438			5,337,492		
08/09/17		15,958,437	12,557		7.4	0.68	0.624	2,478,016	7.0	0.66	5,347,291	6.9	0.38
	09/01/17	*15,992,489*		**August**			**Pounds Cr**						
09/07/17		16,001,926	43,489	**46,985**			**0.244**	2,472,438			5,337,492		
09/07/17		16,001,926	0		7.4	0.50	0.488	2,497,770	7.1	0.68	5,375,524	6.9	0.14
09/29/17		16,031,780	29,854					2,510,609			5,395,101		
	10/01/17	*16,034,956*		**September**			**Pounds Cr**						
10/03/17		16,035,404	3,624	**42,467**			**0.173**	2,512,318			5,397,338		
10/05/17		16,037,996	2,592		7.5	0.44	0.410	2,513,176	7.1	1.14	5,399,232	6.7	0.12
	11/01/17	*16,080,246*		**October**			**Pounds Cr**						
11/07/17		16,090,463	52,467	**45,290**			**0.155**	2,536,891			5,436,850		
11/09/17		16,092,667	2,204		7.6	0.76	0.718	2,538,180	7.2	0.99	5,437,985	7.2	0.22
11/15/17		16,098,379	5,712					2,541,643			5,441,055		
11/30/17		16,109,689	11,310					2,549,030			5,450,173		
	12/01/17	*16,110,147*		**November**			**Pounds Cr**						
12/03/17		16,112,117	2,428	**29,901**			**0.179**	2,550,308			5,451,687		
12/07/17		16,115,265	3,148		7.4	0.82	0.755	2,551,590	7.4	1.29	5,453,973	7.4	0.20
12/14/17		16,121,000	5,735					2,551,590			5,453,973		
12/31/17		16,131,936	10,936					2,560,147			5,464,203		
	01/01/18	*16,132,116*		**December**			**Pounds Cr**						
01/01/18		16,132,328	392	**21,969**			**0.138**	2,560,571			5,464,203		
01/04/18		16,133,697	1,369		--	0.78	0.734	2,560,993	--	0.41	5,465,331	--	0.04
	02/01/18	*16,144,665*		**January**			**Pounds Cr**						
02/01/18		16,144,863	11,166	**12,549**			**0.077**	2,566,068			5,472,876		
02/08/18		16,147,315	2,452		7.8	0.75	0.906	2,567,326	7.4	1.68	5,474,376	7.2	0.16
02/28/18		16,155,889	8,574					2,570,306			5,481,207		
	03/01/18	*16,156,053*		**February**			**Pounds Cr**						
03/01/18		16,156,211	322	**11,388**			**0.086**	2,570,306			5,481,586		
03/08/18		16,163,746	7,535		7.7	0.52	0.526	2,574,570	7.4	0.78	5,485,747	7.2	0.20
03/27/18		16,183,153	19,407					2,585,717			5,495,623		
03/31/18		16,188,615	5,462					2,472,869*			5,499,048		
	04/01/18	*16,189,199*		**March**			**Pounds Cr**						
04/01/18		16,190,057	1,442	**33,146**			**0.145**	2,473,316			5,500,204		

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

Industrial User (Wastewater Discharge) Permit 12-21 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

* 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.

TABLE 2

City of Appleton Compliance Limits, Outfall 001

N.W. Mauthe Superfund Site - Appleton, WI

		Aluminum (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium Total (mg/L)	Copper (mg/L)	Cyanide (mg/L)	Lead (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Hexavalent Chromium (mg/L)
Permit #12-21 Limits		70	1.0	0.3	7.0	3.5	1.0	2.0	0.002	2.0	10.0	4.5
Sampler	Sample Date											
CH2M Hill	02/20/97	<.02	<.003	<.00050	0.04	<.01	<.00001	<.005	<.0002	<.005	0.0051	<.01
CH2M Hill	03/24/98	0.0152	<.002	<.00004	0.0637	<.0095	<.0017	<.0006	<.000015	<.0095	0.0046	0.1000
Appleton	04/29/98	<.011	<.002	<.005	0.2200	<.05	0.0020	<.1	<.0002	<.04	<.005	NA
Appleton	10/07/98	<.011	<.002	0.0050	0.1700	<.05	<.001	<.1	<.0002	<.04	0.0250	NA
MCO	03/18/99	<.009	<.003	<.00031	NA	.00068****	<.000032	<.0024	<.00005	.00351****	<.012	<.0036
Appleton	03/18/99	<.011	<.002	<.005	<0.05	<.05	0.0010	0.1000	<.00005	0.0400	0.0180	NA
Appleton	09/21/99	<.011	<.002	<.005	<.05	<.05	0.0030	<.1	<.00015	<.04	0.0080	NA
Appleton	02/15/00	<.015	<.0020	<.005	0.0900	<.05	<.001	<.1	<.00013	<.04	0.0280	NA
MCO	03/13/00	<.009	<.003	<.00031	0.1400	<.0006	<.0044	<.0024	<.00005	0.0012	<.012	NA
Appleton	02/21/01	<0.15	<.002	<.005	0.11	<.05	0.001	<.1	<.00013	<.04	0.042	NA
MCO	03/01/01	<.034	<.0027	.012 ****	0.25	.0088 ****	<.0033	<.17	<.00005	.036 ****	0.015	<.0036
Appleton	10/02/01	0.016	<.002	<.005	0.14	<.05	<.001	<.1	<.00013	<.04	0.065	NA
MCO	03/19/02	<.034	<.0027	<.0075	0.36	<.0077	<.0027	<.17	<.00005	<.017	<.012	<.0036
Appleton	05/02/02	<.049	<.012	<.014	0.362	<.015	<.0014	<.060	<.00011	<.011	<.009	NA
Appleton	11/12/02	0.027	<.0082	<.00053	0.23	<.009	<.0007	<.00084	<.000028	0.0044	0.0081	NA
Appleton	02/11/03	<0.027	<.0082	<.00053	0.086	<.0009	<.0014	<.0013	<.000028	0.0036	<.0025	NA
Appleton	03/24/03	<.045	<.0027	<.0088	0.13	0.075	<.0050	<.16	<.000050	<.019	<.0044	<.0036
Appleton	10/23/03	0.0045	0.0013	<0.0001	0.221	<0.0008	<0.005	<0.0006	0.0002	<0.025	<0.010	NA
Appleton	03/24/04	<0.050	<0.0026	<0.010	0.15	<0.0060	<0.0050	<0.16	<0.000025	<0.020	<0.010	NA
Appleton	11/09/04	0.0071	<0.0012	<0.0001	0.04	0.0008	<0.005	<0.008	<0.0002	0.0013	<0.01	NA
MCO	08/08/05	0.023	<0.0035	<0.0003	0.039	0.0019	<0.0037	<0.0011	<0.000026	<0.0044	0.0024	<0.005
Appleton	11/05/06	0.0052	<0.0012	<0.0001	0.088	<0.0005	<0.005	<0.0008	<0.0002	0.0017	<0.010	NA
Appleton	02/23/06	0.0021	<0.0012	<0.0001	0.08	<0.0005	<0.0005	<0.0008	<0.0002	0.0022	<0.010	NA
MCO	03/23/06	<0.20	<0.0076	<0.00074	0.32	0.0018	0.0043	<0.0034	<0.000026	0.0033	<0.020	NA
Appleton	06/27/06	<0.200	<0.0076	<0.00074	0.700	0.0016	<0.0094	<0.0034	<0.000072	0.0021	<0.020	<0.350
Appleton	10/05/06	0.037	<0.00011	<0.0001	4.575	0.0068	0.01	<0.001	<0.0002	0.0026	<0.010	NA
Appleton	03/22/07	<0.07	<0.07	<0.01	1.9	3.5	<0.004	<0.03	<0.0002	<0.04	<0.01	NA
MCO	04/02/07	0.0383	0.00024	0.000086	1.41	0.0041	<0.0094	0.00013	<0.00019	0.0035	0.009	NA
Appleton	12/04/07	<0.07	<0.001	<0.01	3.4	<0.01	0.008	<0.03	<0.0002	<0.04	<0.01	1.5
Appleton	01/16/08	0.21	<0.005	<0.01	<0.03	0.02	0.017	0.06	0.0003	<0.04	0.04	NA
OMNNI	04/08/08	0.0114	0.00043	0.00011	0.864	0.0043	0.014 J	0.000095 J	<0.0001	0.0024	0.0071	0.063
Appleton	08/19/08	<0.08	<0.001	<0.01	0.95	<0.01	0.005	<0.03	0.0002	<0.02	<0.01	NA
Appleton	03/31/09	<0.09	<0.012	<0.01	0.99	<0.01	<0.008	<0.05	<0.0002	<0.02	<0.01	NA
OMNNI	04/07/09	<0.0151	0.003 J	0.00040 J	0.767	0.0024 J	<0.0060	<0.0014	<0.00010	0.0016 J	0.0137 J	0.84
Appleton	09/22/09	<0.08	<0.006	<0.01	2.3	<0.01	<0.008	<0.05	<0.0002	<0.02	<0.01	NA
Appleton	03/02/10	<0.06	<0.002	<0.01	1.6	<0.01	<0.008	<0.03	<0.0002	<0.01	<0.01	NA
OMNNI	04/06/10	0.0501 J	<0.0014	0.00043 J	1.16	0.0024 J	<0.0061	<0.00075	<0.0001	0.0023 J	0.0046 J	1.3
Appleton	11/02/10	<0.10	<0.010	<0.01	0.71	<0.01	<0.008	<0.03	<0.0002	<0.01	<0.01	NA
Appleton	02/24/11	<0.08	<0.001	<0.01	1.5	<0.01	0.008	<0.04	<0.0002	<0.02	<0.01	NA
OMNNI	04/05/11	0.0725 J	0.0025 J	<0.00026	0.401	0.0028 J	<0.0061	<0.0014	<0.00010	0.00053 J	0.0023 J	0.40
Appleton	10/26/11	<0.08	<0.005	<0.01	1.2	<0.01	0.007	<0.04	<0.0002	<0.02	<0.01	NA
Appleton	03/21/12	<0.11	<0.004	<0.01	1.3	0.01	0.007	<0.04	<0.0002	<0.02	<0.01	NA
Terracon	04/05/12	<0.0695	<0.0047	<0.00039	0.696	0.014 J	<0.0061	<0.0014	<0.00010	0.001 J	<0.0053	0.83
Appleton	10/04/12	0.0865	0.0051	0.00049	1.43	0.0028 J	0.026	0.0022	0.0001	0.00019 J	<0.0053	NA
Terracon	04/11/13	0.078	<0.004	<0.00048	0.431	0.0024 J	<0.0038	<0.027	<0.00010	0.00013 J	<0.0024	0.42
Appleton	04/17/13	<0.0714	<0.0042	<0.00048	0.279	0.0029 J	<0.0038	<0.027	<0.00010	0.00062 J	<0.0024	NA
Appleton	11/20/13	<0.0714	<0.0042	<0.00048	1.13	0.0018 J	0.0044 J	<0.027	<0.00010	0.00085 J	0.0034 J	NA
Appleton	04/15/14	0.119 J	<0.0068	<0.001	0.27	0.0036 J	<0.060	<0.0016	<0.00010	<0.0013	<0.0058	NA
Terracon	05/13/14	0.116 J	<0.0068	<0.001	0.273	0.0034 J	<0.060	0.0040 J	<0.00010	<0.0013	0.0064 J	0.28
Appleton	9/24/2014	<0.0655	<0.0068	<0.001	0.757	<0.0034	<0.010	<0.0016	<0.00010	<0.0013	<0.0058	NA
Terracon	4/15/2015	0.054 J	<0.0072	<0.00060	0.858	0.0041 J	<0.010	<0.0030	<0.00010	<0.0014	0.0026 J	0.92
Appleton	6/3/2015	<0.0655	<0.0068	<0.001	0.504	<0.0034	<0.020	<0.0016	<0.00010	0.0013 J	<0.0058	NA
Appleton	10/21/2015	0.105 J	<0.0068	<0.0010	0.676	<0.0034	<0.010	0.0024 J	<0.00010	<0.0013	0.0078 J	NA
Terracon	5/12/2016	0.0637 J	<0.0072	<0.00060	0.645	<0.0036	<0.0068	<0.0030	<0.00013	0.0018 J	<0.0013	0.70
Appleton	5/17/2016	<0.090	<0.001	<0.010	0.530	<0.010	<0.007	<0.030	<0.0002	<0.020	<0.01	NA
Appleton	11/1/2016	<0.090	<0.010	<0.010	0.560	<0.010	<0.007	<0.030	<0.0002	<0.020	<0.010	NA
Appleton	4/27/2017	<0.060	<0.001	<0.010	0.370	<0.010	0.007	<0.030	<0.0002	<0.020	<0.010	NA
Terracon	6/8/2017	<0.0555	<0.0083	<0.0013	0.345	<0.0063	<0.0068	<0.0043	<0.00013	<0.0026	<0.0093	0.35
Appleton	11/9/2017	<0.060	0.001	0.010	0.770	<0.010	<0.007	<0.030	<0.0002	<0.020	<0.010	NA

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

January 10, 2018

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

RE: Project: 58117057 MAUTHE
Pace Project No.: 40163110

Dear Scott Hodgson:
Enclosed are the analytical results for sample(s) received by the laboratory on January 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

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

CERTIFICATIONS

Project: 58117057 MAUTHE
Pace Project No.: 40163110

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

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

SAMPLE SUMMARY

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40163110001	**OUTFALL-001**	Water	01/04/18 07:45	01/04/18 13:40

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

SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40163110001	**OUTFALL-001**	EPA 6010	JLD	1	PASI-G
		SM 3500-Cr B (Online)	DDY	1	PASI-G

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

SUMMARY OF DETECTION

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40163110001	**OUTFALL-001**					
EPA 6010	Chromium, Dissolved	734	ug/L	10.0	01/09/18 12:45	
SM 3500-Cr B (Online)	Chromium, Hexavalent	0.78	mg/L	0.086	01/04/18 14:20	

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

PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: January 10, 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.

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:

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

PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Method: **SM 3500-Cr B (Online)**
Description: Chromium, Hexavalent
Client: Terracon, Inc. - Franklin
Date: January 10, 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.

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

ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Sample: OUTFALL-001 **Lab ID: 40163110001** Collected: 01/04/18 07:45 Received: 01/04/18 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**734**	ug/L	10.0	2.5	1		01/09/18 12:45	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	**0.78**	mg/L	0.086	0.026	5		01/04/18 14:20		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 40163110

QC Batch: 278760
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40163110001

METHOD BLANK: 1637105 Matrix: Water
Associated Lab Samples: 40163110001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	01/09/18 12:40	

LABORATORY CONTROL SAMPLE: 1637106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	522	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1637107 1637108

Parameter	Units	40163110001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	734	500	500	1240	1240	101	102	75-125	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

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

QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 40163110

QC Batch: 278533 | Analysis Method: SM 3500-Cr B (Online)
QC Batch Method: SM 3500-Cr B (Online) | Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 40163110001

METHOD BLANK: 1636065 | Matrix: Water
Associated Lab Samples: 40163110001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	01/04/18 14:20	

LABORATORY CONTROL SAMPLE: 1636066

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.32	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1636067 1636068

Parameter	Units	40163110001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	0.78	1.5	1.5	2.4	2.3	109	103	90-110	4	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 58117057 MAUTHE
Pace Project No.: 40163110

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE
Pace Project No.: 40163110

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40163110001	**OUTFALL-001**	EPA 6010	278760		
40163110001	**OUTFALL-001**	SM 3500-Cr B (Online)	278533		

Pace Analytical®
www.pacelabs.com

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

Page 1 of

40163110

SSM

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	Terracon
Branch/Location:	Milwaukee
Project Contact:	Scott Hodgson
Phone:	414-209-7640
Project Number:	58117057
Project Name:	Mauthe
Project State:	WI
Sampled By (Print):	Scott A. Hodgson
Sampled By (Sign):	Scott A. Hodgson
PO #:	Regulatory Program:

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

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	Same
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Total Chromium	Analyses Requested: Hex Chromium	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
09	OUTFALL-001	1/4/18	0745	WW	Y	D	1-250	1-250	2-250mL p AD		
					N	A					

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

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
Scott A Hodgson	1/4/18 0914	Rachel WS Pace	1/4/18 0914
Rachel WS Pace	1/4/18 1340	[signature] Pace	1/9/18 1340

PACE Project No.: 40163110

Receipt Temp = 2.0 1 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

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

Pace Analytical™

Project: **WO# : 40163110**

40163110

Client Name: Terracon

Courier: ☐ Fed Ex ☐ UPS ☐ 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 N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: _____ /Corr: RO1 **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 1/4/18
Initials: RMN

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

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☑Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☐Yes	☑No	☐N/A	8. NO ms/msD RMN 1/4/18
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes	☐No	☐N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes	☐No	☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☑No		Initial when completed RMN / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14.
Trip Blank Present:	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RMR for DM **Date:** 1/4/18

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

February 15, 2018

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

RE: Project: 58117057 MAUTHE
Pace Project No.: 40164475

Dear Scott Hodgson:
Enclosed are the analytical results for sample(s) received by the laboratory on February 08, 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

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

CERTIFICATIONS

Project: 58117057 MAUTHE
Pace Project No.: 40164475

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

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

SAMPLE SUMMARY

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40164475001	**OUTFALL-001**	Water	02/08/18 07:30	02/08/18 12:50

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

SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40164475001	**OUTFALL-001**	EPA 6010	JLD	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

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

SUMMARY OF DETECTION

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40164475001	**OUTFALL-001**					
EPA 6010	Chromium, Dissolved	906	ug/L	10.0	02/13/18 17:28	
SM 3500-Cr B (Online)	Chromium, Hexavalent	0.75	mg/L	0.086	02/08/18 13:25	M0

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

PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: February 15, 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.

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:

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

PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Method: **SM 3500-Cr B (Online)**
Description: Chromium, Hexavalent
Client: Terracon, Inc. - Franklin
Date: February 15, 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.

QC Batch: 280873

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40164475001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1647086)
  - Chromium, Hexavalent

Additional Comments:

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

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

ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Sample: OUTFALL-001 **Lab ID: 40164475001** Collected: 02/08/18 07:30 Received: 02/08/18 12:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**906**	ug/L	10.0	2.5	1		02/13/18 17:28	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	**0.75**	mg/L	0.086	0.026	5		02/08/18 13:25		M0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 40164475

QC Batch: 281099
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40164475001

METHOD BLANK: 1648114 Matrix: Water
Associated Lab Samples: 40164475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	02/13/18 16:37	

LABORATORY CONTROL SAMPLE: 1648115

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1648116 1648117

Parameter	Units	40164373001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	<2.5	500	500	485	491	97	98	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.: 40164475

QC Batch: 280873
QC Batch Method: SM 3500-Cr B (Online)
Associated Lab Samples: 40164475001

Analysis Method: SM 3500-Cr B (Online)
Analysis Description: Chromium, Hexavalent by 3500

METHOD BLANK: 1647084 Matrix: Water
Associated Lab Samples: 40164475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	02/08/18 13:25	

LABORATORY CONTROL SAMPLE: 1647085

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.31	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1647086 1647087

Parameter	Units	40164475001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	0.75	1.5	1.5	2.4	2.4	113	107	90-110	4	20	M0

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 58117057 MAUTHE
Pace Project No.: 40164475

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

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE
Pace Project No.: 40164475

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40164475001	**OUTFALL-001**	EPA 6010	281099		
40164475001	**OUTFALL-001**	SM 3500-Cr B (Online)	280873		

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Page 1 of

SSM

40164475

CHAIN OF CUSTODY

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

(Please Print Clearly)	
Company Name:	Terracon
Branch/Location:	Mt. Iwaukee
Project Contact:	Scott Hodgson
Phone:	414-209-7640
Project Number:	58117057
Project Name:	Mauthe
Project State:	WI
Sampled By (Print):	Scott A. Hodgson
Sampled By (Sign):	Scott A. Hodgson
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	Same
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

Matrix Codes

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Total Chromium	Analyses Requested: Hex Chromium	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	04TFALL-001	2/8/18	0730	WW	Y	D	X	X			

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

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
Scott A. Hodgson	2/8/18 0830		
	2/8/18 1250		2/8/18 0918
			2/8/18 1250

PACE Project No. 40164475

Receipt Temp = 2.0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: Terracon Project # 90164475

Initial when completed: SKW Date/ Time:

All containers needing preservation have been checked and noted below: ☑Yes ☐No ☐N/A Lab Std #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																															X		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: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

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

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 31Jan2018
	Document No.: **F-GB-C-031-rev.06**	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40164475

Client Name: Terracon

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

Tracking #: _____

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

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

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

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

Cooler Temperature Uncorr: ROT /Corr: _____

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

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

Person examining contents:
Date: 2-8-18
Initials: SEO

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RAR for PM **Date:** 2/8/18

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

March 15, 2018

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

RE: Project: 58117057 MAUTHE
Pace Project No.: 40165639

Dear Scott Hodgson:
Enclosed are the analytical results for sample(s) received by the laboratory on March 08, 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

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

CERTIFICATIONS

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Green Bay Certification IDs

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

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SAMPLE SUMMARY

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40165639001	**OUTFALL-001**	Water	03/08/18 07:45	03/08/18 09:45

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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40165639001	**OUTFALL-001**	EPA 6010	JLD	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

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SUMMARY OF DETECTION

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40165639001	**OUTFALL-001**					
EPA 6010	Chromium, Dissolved	526	ug/L	10.0	03/09/18 15:04	
SM 3500-Cr B (Online)	Chromium, Hexavalent	0.52	mg/L	0.086	03/08/18 15:05	

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PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: March 15, 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.

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:

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PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Method: **SM 3500-Cr B (Online)**
Description: Chromium, Hexavalent
Client: Terracon, Inc. - Franklin
Date: March 15, 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.

QC Batch: 282798

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40165616001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1656647)
  - Chromium, Hexavalent
- MSD (Lab ID: 1656648)
  - Chromium, Hexavalent

Additional Comments:

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

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(920)469-2436

ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Sample: OUTFALL-001 **Lab ID: 40165639001** Collected: 03/08/18 07:45 Received: 03/08/18 09:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**526**	ug/L	10.0	2.5	1		03/09/18 15:04	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	**0.52**	mg/L	0.086	0.026	5		03/08/18 15:05		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 40165639

QC Batch: 282899
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40165639001

METHOD BLANK: 1657063 Matrix: Water
Associated Lab Samples: 40165639001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	03/09/18 14:59	

LABORATORY CONTROL SAMPLE: 1657064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	496	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1657066 1657067

Parameter	Units	40165639001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	526	500	500	1010	1020	97	99	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

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 40165639

QC Batch: 282798
QC Batch Method: SM 3500-Cr B (Online)
Associated Lab Samples: 40165639001

Analysis Method: SM 3500-Cr B (Online)
Analysis Description: Chromium, Hexavalent by 3500

METHOD BLANK: 1656645 Matrix: Water
Associated Lab Samples: 40165639001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0051	0.017	03/08/18 11:00	

LABORATORY CONTROL SAMPLE: 1656646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1656647 1656648

Parameter	Units	40165616001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	<1.3	75	75	<1.3	<1.3	0	0	90-110		20	M0

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 58117057 MAUTHE
Pace Project No.: 40165639

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

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE
Pace Project No.: 40165639

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40165639001	**OUTFALL-001**	EPA 6010	282899		
40165639001	**OUTFALL-001**	SM 3500-Cr B (Online)	282798		

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Page 1 of

40165639

CHAIN OF CUSTODY

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

(Please Print Clearly)	
Company Name:	Terracon
Branch/Location:	Milwaukee
Project Contact:	Scott Hodgson
Phone:	414-209-7640
Project Number:	58117057
Project Name:	Mauthe
Project State:	WI
Sampled By (Print):	Scott A. Hodgson
Sampled By (Sign):	Scott A. Hodgson
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Total Chromium	Analyses Requested: Hex Chromium	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y	N					
					D	A					
001	OUTFALL-001	3/8/18	0745	WW			1-250	1-250			

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

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
Scott A. Hodgson	3/8/18 0830	Rose Pau	3/8/18 0915
Rose Pau	3/8/18 1340		3/8/18 1340
		DSampson	3/8/18 1340

PACE Project No.: 40165639

Receipt Temp = 1.0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present

Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: Terracon

Project # 40165639

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

Initial when completed: NS 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
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018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

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

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

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 31Jan2018
	Document No.: **F-GB-C-031-rev.06**	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40165639

40165639

Client Name: Terracon

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

Tracking #:

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

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

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

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

Cooler Temperature Uncorr: ROI /Corr:

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

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

Person examining contents:
Date: 3/8/18
Initials: KS

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

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: AL for DM **Date:** 3/8/18