HYDRITE CHEMICAL CO.

300 N. Patrick Blvd.
P.O. Box 0948
Brookfield, WI 53045
Main 262.792.1450
Fax 262.792.8721
www.hydrite.com

May 24, 2019

WI DNR Service Center
1300 W. Clairemont Avenue
Eau Claire, WI 54701

Subject: Tank System Service and Closure Assessment Report

I am sending this letter and attached documents as required by WI DATCP 93. Attached to this letter is WI DATCP 93 form TR-WM-140,Tank System Service and Closure Assessment Report for a 481,032 gallon above ground storage tank which has been closed and removed. The tank, which contained 50% Sodium Hydroxide, was located at Hydrite Chemical Co. in La Crosse, WI.

A new 1,000,000 gallon will be erected on the site and we are proceeding with construction of this tank. If you have an questions or concerns please contact Ron Carrington, Director of Engineering, at 608-839-8126 or Ken Yass, Technical Regulatory Manager, at 608-792-8736

Regards,

Dave Volenberg

Dave Volenberg,
Senior EHS Engineer

TR-WM-140 (7/18) Formerly ERS-8951

Wisconsin Department of Agriculture, Trade and Consumer Protection
Bureau of Weights and Measures
P.O. Box 7837, Madison, WI 53707-7837
(608) 224-4942

Wis. Admin. Code §ATCP 93.560

FOR OFFICE USE ONLY

TANK SYSTEM SERVICE AND CLOSURE ASSESSMENT REPORT

Personal information you provide may be used for purposes other than that for which it was originally collected (s. 15.04(1)(m) Wis. Stats.).

Complete One Form for Each System Service Event

FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE 'N/A' BOX

CHECK ONE: ☐ **UNDERGROUND** ☒ **ABOVEGROUND**

Part A – To be completed by contractor performing repair or closure

A. TYPE OF SERVICE ☒ CLOSURE ☐ REPAIR/UPGRADE ☐ CHANGE-IN-SERVICE

Indicate portion of system being serviced if a repair, upgrade or change-in-service is being performed

☐ Remote fill ☒ Tank ☐ Piping ☐ Transition/containment sump ☐ Spill bucket ☐ Dispenser

B. IDENTIFICATION

OWNER INFORMATION

OWNER NAME	CONTACT NAME	TITLE
Hydrite Chemical Co.	Dan Smith	Operations Manager

MAILING ADDRESS	☒ CITY ☐ TOWN ☐ VILLAGE	STATE	ZIP
701 Sumner Street	La Crosse	WI	54603

TELEPHONE:	E-MAIL
(608) 764 - 24	dan.smith@hydrite.com

SITE INFORMATION

FACILITY NAME
Hydrite Chemical Co.

SITE ADDRESS (Not PO Box)	☒ CITY ☐ TOWN ☐ VILLAGE	STATE	ZIP
701 Sumner Street	La Crosse	WI	54603

SERVICE CONTRACTOR INFORMATION

PRIMARY SERVICE CONTRACTOR Section A Above	TELEPHONE:	CELL:
Legacy Tank & Industria Services LLC	(918) 399 - 5980	(918) 399 - 5980

STREET ADDRESS	☒ CITY ☐ TOWN ☐ VILLAGE	STATE	ZIP
5980PO Box 247	Yale	OK	74085

C. TANK SYSTEM DETAIL (Complete for all service activities)

a	b	c	d	e	f	g	h	
Tank ID #	Type of Closure[1]	Tank Material of Construction	Piping Material of Construction	Tank Capacity (gallons)	Contents[2]	Release - System Integrity Compromised (e.g. holes, cracks, loose connection, etc)?	If "Yes" to "g", Then Specify Source and Cause of Release[5]	
							Source of Release[3]	Cause of Release[4]
28247	P	Steel	Steel	481,032	OC	☐ Yes ☒ No		
						☐ Yes ☐ No		
						☐ Yes ☐ No		
						☐ Yes ☐ No		
						☐ Yes ☐ No		
						☐ Yes ☐ No		

1. Indicate type of closure: P = Permanent, TOS = Temporarily Out-of-Service, CIP = Closure In-Place
2. Indicate type of product: DL = Diesel, LG = Leaded Gasoline, UG = Unleaded Gasoline, FO = Fuel Oil, GH = Gasohol, AF = Aviation Fuel, K = Kerosene, PX = Premix, WO = Waste/Used Motor Oil, FCHZW = Flammable/Combustible Hazardous Waste, OC = Other Chemical (indicate the chemical name(s):

50% Sodium Hydroxide			

3. CAS number(s): 1310-73-2
4. Source of release: T = tank, P = piping, D = dispenser, STP = submersible turbine pump, DP = delivery problem, O = other, UNK = Unknown
5. Cause of release:
   S = spill, O = overfill, POMD = physical or mechanical damage, C = corrosion, IP = installation problem, O = other, UNK = Unknown
6. Has release been reported to the Department of Natural Resources? ☐ Yes ☐ No ☒ Release not evident at this time

Part A Distribution: DATCP DNR Inspector Contractor Owner

D. CLOSURES (Check applicable box at right in response to all statements in section D)

Written notification was provided to the local agent 5 days in advance of closure date. ☒ Yes ☐ No

All local permits were obtained before beginning closure. ☒ Yes ☐ No ☐ NA

☐ UST Form TR-WM-137 or ☒ AST Form TR-WM-118 filed by owner with the DATCP indicating closure. ☒ Yes ☐ No ☐ NA

NOTE: *TANK INVENTORY FORM TR-WM-137 or TR-WM-118 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH CLOSURE or CHANGE-IN-SERVICE CHECKLIST*

D.1 ☐ TEMPORARILY OUT-OF-SERVICE	Remover Verified	Inspector Verified	Inspector Not Present	NA
1. Product removed.				
a. Product lines drained into tank (or other container) and liquid removed, and	☐Y ☐N	☐Y ☐N	☐	☐
b. All product removed to bottom of suction line, OR	☐Y ☐N	☐Y ☐N	☐	☐
c. All product removed to within 1" of bottom.	☐Y ☐N	☐Y ☐N	☐	☐
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	☐Y ☐N	☐Y ☐N	☐	☐
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	☐Y ☐N	☐Y ☐N	☐	☐
4. Dispensers/pumps left in place but locked and power disconnected.	☐Y ☐N	☐Y ☐N	☐	☐
5. Vent lines left open.	☐Y ☐N	☐Y ☐N	☐	☐
6. Inventory form filed indicating temporarily out-of-service (TOS) closure.	☐Y ☐N	☐Y ☐N	☐	☐
D.2. ☒ CLOSURE BY REMOVAL OR IN-PLACE				
1. General Requirements	☐Y ☐N	☐Y ☐N	☐	☒
a. Product from piping drained into tank (or other container).	☐Y ☐N	☐Y ☐N	☐	☒
b. Piping disconnected from tank and removed.	☐Y ☐N	☐Y ☐N	☐	☒
c. All liquid and residue removed from tank using explosion-proof pumps or hand pumps.	☐Y ☐N	☐Y ☐N	☐	☒
d. All pump motors and suction hoses bonded to tank or otherwise grounded.	☐Y ☐N	☐Y ☐N	☐	☒
e. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	☐Y ☐N	☐Y ☐N	☐	☒
f. Vent lines left connected until tanks purged.	☐Y ☐N	☐Y ☐N	☐	☒
g. Tank openings temporarily plugged so vapors exit through vent.	☐Y ☐N	☐Y ☐N	☐	☒
h. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section E.	☐Y ☐N	☐Y ☐N	☐	☒
2. Specific Closure-by-Removal Requirements				
a. Tank removed from excavation after PURGING/INERTING; placed on level ground and blocked to prevent movement.	☐Y ☐N	☐Y ☐N	☐	☒
b. Tank cleaned before being removed from site.	☐Y ☐N	☐Y ☐N	☐	☒
c. Tank labeled in full compliance with API 1604 after removal but before being moved from site.	☐Y ☐N	☐Y ☐N	☐	☒
NOTE: *COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; MONTH/DAY/YEAR OF REMOVAL*				
d. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site.	☐Y ☐N	☐Y ☐N	☐	☒
e. Site security is provided while the excavation is open.	☐Y ☐N	☐Y ☐N	☐	☒
3. Specific Closure-In-Place Requirements	☐Y ☐N	☐Y ☐N	☐	☒
NOTE: *CLOSURES IN-PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION (DATCP) OR LOCAL AGENT.*				
a. Tank properly cleaned to remove all sludge and residue.	☐Y ☐N	☐Y ☐N	☐	☒
b. Solid inert material (sand, cyclone boiler slag, or pea gravel recommended) introduced and tank filled.	☐Y ☐N	☐Y ☐N	☐	☒
c. Vent line disconnected or removed.	☐Y ☐N	☐Y ☐N	☐	☒
d. Inventory form filed by owner with the DATCP indicating closure in-place.	☐Y ☐N	☐Y ☐N	☐	☒

E. ☐ REPAIR, UPGRADE OR CHANGE-IN-SERVICE

Written notification was provided to the local agent 5 days in advance of service date.	☐Y	☐N	☐NA
All local permits were obtained before beginning service.	☐Y	☐N	☐NA
Form TR-WM-137 or 0 TR-WM-118 filed by owner with the DATCP indicating change-in-service.	☐Y	☐N	☐NA

F. METHOD OF VAPOR FREEING OF TANK

☐ Displacement of vapors by eductor or diffused air blower.

Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground.

☐ Inert gas using dry ice or liquid carbon dioxide.

☐ Inert gas using CO_2 or N_2 **NOTE:** *INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. LEL METERS MAY NOT FUNCTION ACCURATELY. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.*

Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent.

Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.

☐ Readings of 10% or less of the lower flammable range (LEL) or <5% oxygen obtained before removing tank from ground.

☐ Tank atmosphere monitored for flammable or combustible vapor levels prior to and during cleaning and cutting.

☐ Calibrate combustible gas indicator and/or oxygen meter prior to use. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank.

G. REMOVER/CLEANER INFORMATION

REMOVER/CLEANER NAME (PRINT):	REMOVER/CLEANER SIGNATURE	CERTIFICATION NO	DATE SIGNED

I attest that the procedures and information which I have provided as the tank closure contractor are correct and comply with ATCP 93.

Company expected to perform soil contamination assessment REI, 4080 n. 20th Avenue, Wausau, WI 54401, Attn: Andy Delforge

H. INSPECTOR INFORMATION

INSPECTOR NAME (PRINT):	INSPECTOR SIGNATURE	INSPECTOR CERTIFICATION NO	LPO AGENCY #
Kyle G. Sieden		401425	2602035

FDID # FOR LOCATION WHERE INSPECTION PERFORMED	INSPECTOR TELEPHONE:NUMBER	DATE SIGNED
3205	(608) 789-7271	6 May 19

INSPECTOR NOTES:

Distribution: DATCP DNR Inspector Contractor Owner

TR-WM-140 (7/18) Formerly ERS-8951

Part B – To be completed by environmental professional - Submit *original* Part B to the WDNR along with a *copy* of Part A

I. TANK-SYSTEM SITE ASSESSMENT (TSSA)

SITE NAME - ***Note: SITE NAME and address MUST MATCH with Part A Section 1.***

Hydrite C'hemical Co.

SITE ADDRESS (Not PO Box)	☒ CITY ☐ TOWN ☐ VILLAGE	STATE	ZIP
701 Sumner Street	LaCrosse	WI	54603

To determine if a TSSA is required, see ATCP 93 and section II part B of *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

If a TSSA is required, then follow the procedures detailed in *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS*

1. Site Information

a. Has there been a previously documented release at this site? ☒ Y ☐ N

If yes, provide the DATCP # _____ or DNR BRRT's # 03-32-000697

b. Number of active tanks at facility prior to completion of current services: USTs _____ ASTs 12

(NOTE 1: *Do not include previously closed systems or system components.*)

c. Excavation/trench dimensions (in feet). (Photos must be provided.)

EXCAVATION/TRENCH #	LENGTH	WIDTH	DEPTH
1	50' Diameter		1

2. Visual Excavation/Trench Inspection (Photos must be provided for "Yes" responses, except item b.)

Do any of the following conditions exist in or about the excavation(s)?

a. Stained soils: ☐ Yes ☒ No b. Petroleum odor: ☐ Yes ☒ No c. Water in excavation/trench: ☐ Yes ☐ No

d. Free product in the excavation/trench: ☐ Yes ☐ No e. Sheen or free product on water: ☐ Yes ☐ No

3. Geology/Hydrogeology

a. Depth to groundwater 15 feet b. Indicate type of geology[2] Sand

4. Receptors

a. Water supply well(s) within 250 feet of the facility? ☐ Yes ☒ No If yes, specify: _____

b. Surface water(s) within 1000 feet of the facility? ☒ Yes ☐ No If yes, specify: Black River 450 feet west

5. Sampling

a. Follow the procedures detailed in *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

b. Complete Tables 1 and 2 as appropriate. (Attach chain-of-custody and laboratory analytical reports.)

c. Attach a detailed map of site features and sample locations.

J. NOTE RELEVANT OBSERVATIONS, SPECIFIC PROBLEMS OR CONCERNS BELOW

Former Sodium Hydroxide tank. Soils below pump house and tank analyzed for sodium and pH at and 2' depths. There was no obvious sign of a release in the soils or tank itself upon removal. Geotechnical borings were conducted at the site to a depth of twenty-eight (28) feet below land surface (bls). Logs indicate fill material to a depth of approximately seven (7) feet bls where fine to medium grained sand is present.

Distribution: DATCP DNR Inspector Contractor Owner

TR-WM-140 (7/18) Formerly ERS-8051

TABLE 1 SOIL FIELD SCREENING & GRO/DRO LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	Sample Location & Soil/Geologic Description	Sample Collection Method				Depth Below Tank/Piping (feet)	Field Screening Result (ppm)	GRO (mg/kg)	DRO (mg/kg)
		Grab	Shelby Tube	Direct Push	Split Spoon				
B-1	Below pump house	☒	☐	☐	☐	1	NA	NA	NA
T-1	Below tank SW	☒	☐	☐	☐	1	NA	NA	NA
T-2	Below tank SE	☒	☐	☐	☐	1	NA	NA	NA
T-3	Below tank N	☒	☐	☐	☐	1	NA	NA	NA
B1-2	Below pump house	☒	☐	☐	☐	2	NA	NA	NA
T1-2	Below tank SW	☒	☐	☐	☐	2	NA	NA	NA
T2-2	Below tank SE	☒	☐	☐	☐	2	NA	NA	NA
T3-2	Below tank N	☒	☐	☐	☐	2	NA	NA	NA
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				

TABLE 2 SOIL LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	Sodium	pH					
	mg/kg	Std. Units					
B-1	201	11.4					
T-1	279	10.2					
T-2	430	9.42					
T-3	279	7.44					
B1-2	84.2	8.47					
T1-2	452	9.19					
T2-2	769	9.95					
T3-2	144	9.54					

K. TANK-SYSTEM SITE ASSESSMENT INFORMATION

☒ As a tank-system site assessor certified under Wis. Admin. Code section SPS 305.83, it is my opinion that there is no indication of a release of a regulated substance to the environment.

☐ Sampling at the site indicates there has been a release to the environment. Pursuant to Wis. Admin. Code section ATCP 93.685 (2) (a) and Wis. Stats. section 292.11 (2) (a), the owner or operator or contractor performing work under chapter ATCP 93 shall immediately report any release of a regulated substance to the Wisconsin Department of Natural Resources. Failure to do so may result in forfeitures of a minimum of $10 and a maximum of $5000 for each violation under Wis. Stats. Section 168.26 (5). Each day of continued violation and each tank are treated as separate offenses.

Andrew R. Delforge		401233
TANK-SYSTEM SITE ASSESSOR NAME (PRINT):	TANK-SYSTEM SITE ASSESSOR SIGNATURE	CERTIFICATION NO.

(715) 675- 9784		5/24/19
TANK-SYSTEM SITE ASSESSOR TELEPHONE NUMBER	DATE SIGNED	COMPANY NAME

This document can be made available in alternate formats to individuals with disabilities upon request.

Distribution: DATCP DNR Inspector Contractor Owner

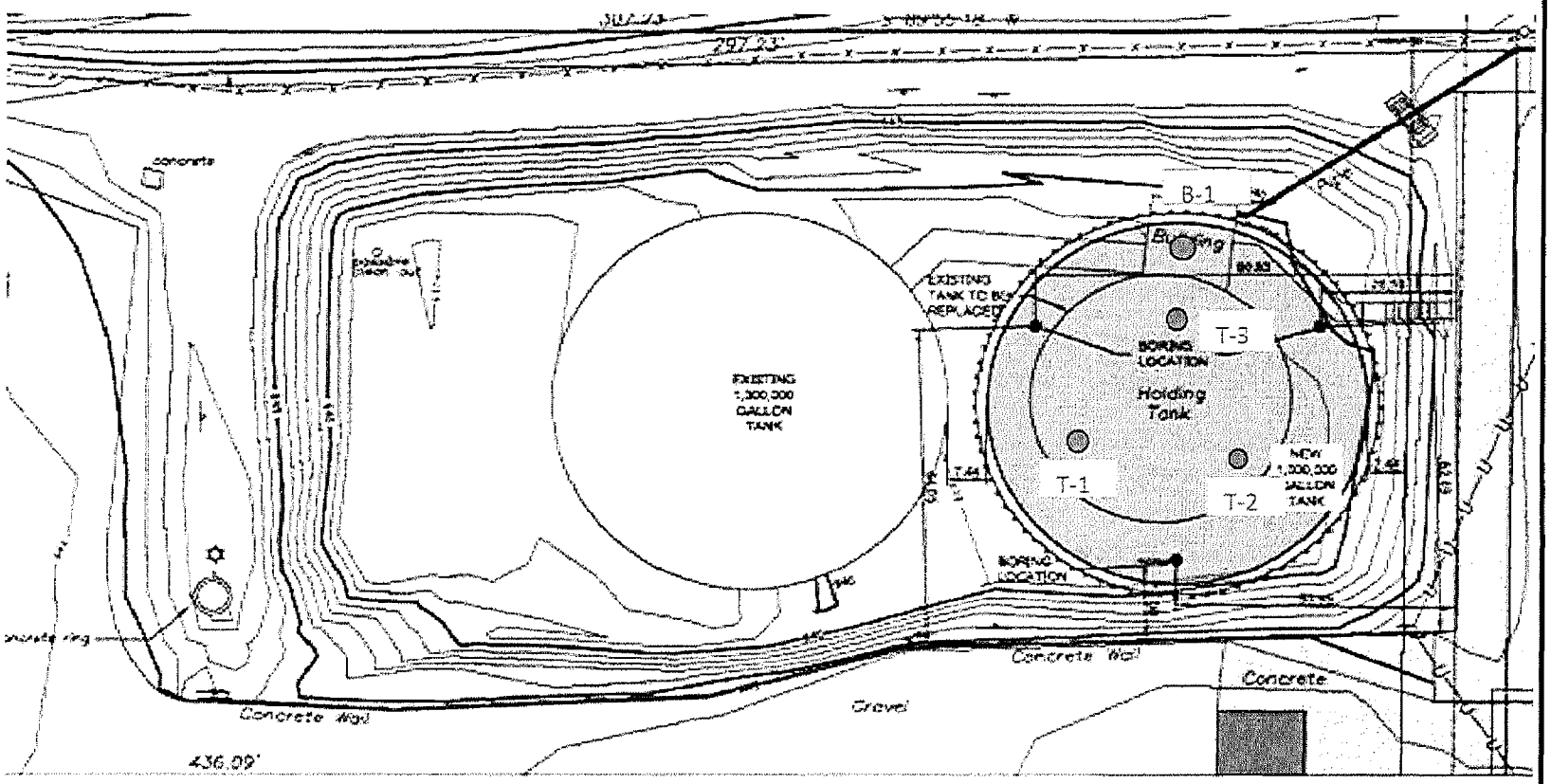
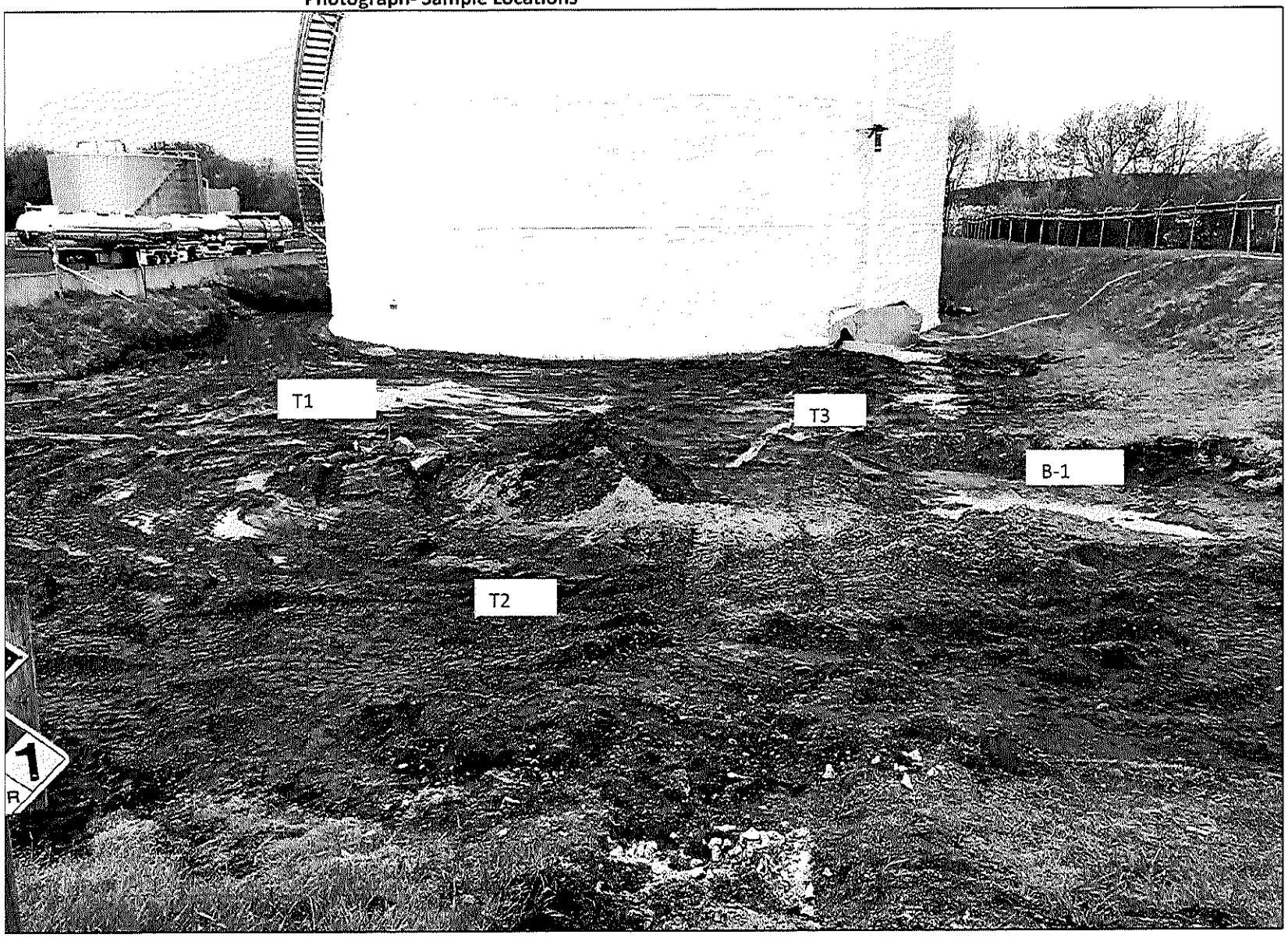


Figure 1 - Sample Locations
Hydrite Chemical Co. - T402
701 Sumner Street
LaCrosse, WI 54603

Photograph- Sample Locations



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

May 13, 2019

Andy Delforge
REI
4080 North 20th Avenue
Wausau, WI 54401

RE: Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Dear Andy Delforge:
Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2019. 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,

Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

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

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40187173001	B-1	Solid	05/07/19 09:15	05/08/19 09:05
40187173002	T-1	Solid	05/07/19 09:25	05/08/19 09:05
40187173003	T-2	Solid	05/07/19 09:35	05/08/19 09:05
40187173004	T-3	Solid	05/07/19 09:45	05/08/19 09:05

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40187173001	B-1	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G
40187173002	T-1	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G
40187173003	T-2	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G
40187173004	T-3	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Sample: B-1 **Lab ID: 40187173001** Collected: 05/07/19 09:15 Received: 05/08/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**201**	mg/kg	55.9	27.2	1	05/08/19 10:15	05/08/19 16:45	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.6**	%	0.10	0.10	1		05/08/19 17:50		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**11.4**	Std. Units	0.100	0.0100	1		05/13/19 12:31		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Sample: T-1 **Lab ID: 40187173002** Collected: 05/07/19 09:25 Received: 05/08/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**279**	mg/kg	56.1	27.3	1	05/08/19 10:15	05/08/19 16:48	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.5**	%	0.10	0.10	1		05/08/19 17:50		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**10.2**	Std. Units	0.100	0.0100	1		05/13/19 12:33		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Sample: T-2 **Lab ID: 40187173003** Collected: 05/07/19 09:35 Received: 05/08/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**430**	mg/kg	55.6	27.0	1	05/08/19 10:15	05/08/19 16:50	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.9**	%	0.10	0.10	1		05/08/19 17:50		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**9.42**	Std. Units	0.100	0.0100	1		05/13/19 12:34		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Sample: T-3 **Lab ID: 40187173004** Collected: 05/07/19 09:45 Received: 05/08/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**279**	mg/kg	58.9	28.7	1	05/08/19 10:15	05/08/19 16:52	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.9**	%	0.10	0.10	1		05/08/19 17:50		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**7.44**	Std. Units	0.100	0.0100	1		05/13/19 12:42		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

QC Batch: 320751 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40187173001, 40187173002, 40187173003, 40187173004

METHOD BLANK: 1862964 Matrix: Solid
Associated Lab Samples: 40187173001, 40187173002, 40187173003, 40187173004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sodium	mg/kg	<24.3	50.0	05/08/19 16:33	

LABORATORY CONTROL SAMPLE: 1862965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sodium	mg/kg	500	518	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862966 1862967

Parameter	Units	40187179001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sodium	mg/kg	126	615	615	746	752	101	102	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.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

QC Batch: 320799 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40187173001, 40187173002, 40187173003, 40187173004

SAMPLE DUPLICATE: 1863429

Parameter	Units	40187193003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.0	22.2	1	10	

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.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

QC Batch: 321081 Analysis Method: EPA 9045
QC Batch Method: EPA 9045 Analysis Description: 9045 pH
Associated Lab Samples: 40187173001, 40187173002, 40187173003, 40187173004

SAMPLE DUPLICATE: 1865300

Parameter	Units	40187120003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.78	6.71	1	5	H6

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.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

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

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 8608 HYDRITE T-402
Pace Project No.: 40187173

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40187173001	B-1	EPA 3050	320751	EPA 6010	320785
40187173002	T-1	EPA 3050	320751	EPA 6010	320785
40187173003	T-2	EPA 3050	320751	EPA 6010	320785
40187173004	T-3	EPA 3050	320751	EPA 6010	320785
40187173001	B-1	ASTM D2974-87	320799		
40187173002	T-1	ASTM D2974-87	320799		
40187173003	T-2	ASTM D2974-87	320799		
40187173004	T-3	ASTM D2974-87	320799		
40187173001	B-1	EPA 9045	321081		
40187173002	T-1	EPA 9045	321081		
40187173003	T-2	EPA 9045	321081		
40187173004	T-3	EPA 9045	321081		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
www.pacelabs.com

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

Page 1 of 1

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	Aru
Branch/Location:	WASA
Project Contact:	Andy Deloy
Phone:	715-675-9784
Project Number:	8608
Project Name:	Hydro T-402
Project State:	WI
Sampled By (Print):	Andy Deloy
Sampled By (Sign):	
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 #:	40187173
	Mail To Contact:	Ap
	Mail To Company:	Aru
	Mail To Address:	
	Invoice To Contact:	Ap
	Invoice To Company:	Aru
	Invoice To Address:	
	Invoice To Phone:	

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested									CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					FILTERED? (YES/NO)	Y/N	N	N								
					PRESERVATION (CODE)*	Pick Letter	A	A								
							pH	Sodium								
001	B-1	5/7/19	9:15	S			X	X								
002	T-1		9:25				X	X								
003	T-2		9:35				X	X								
004	T-3		9:45				X	X								

MH

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) 5-8-19
Date Needed: ~~5-10-19~~

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

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
	5/7/19 2:00		
Walter	5/8/19 0905	[signature] Pace	5/8/19 0905

PACE Project No. 40187173
Receipt Temp = RDI °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: RET

Project # C10187173

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

Initial when completed: Date/Time:

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

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	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																						2											2.5 / 5 / 10
002																						2											2.5 / 5 / 10
003																						2											2.5 / 5 / 10
004																						2											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
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

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

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

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

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40187173

40187173

Client Name: RET

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

Tracking #: 2050820

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: ROI

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

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

Person examining contents:
Date: 5-8-19
Initials: JK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☑Yes ☐No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
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: Client used tare weight jars 5-8-19 JK

Project Manager Review: _____ **Date:** _____

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

May 24, 2019

Andy Delforge
REI
4080 North 20th Avenue
Wausau, WI 54401

RE: Project: 8608 HYDRITE
Pace Project No.: 40188009

Dear Andy Delforge:
Enclosed are the analytical results for sample(s) received by the laboratory on May 22, 2019. 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,

Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: 8608 HYDRITE
Pace Project No.: 40188009

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

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: 8608 HYDRITE
Pace Project No.: 40188009

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40188009001	**T1-2**	Solid	05/20/19 09:05	05/22/19 09:05
40188009002	**T2-2**	Solid	05/20/19 09:10	05/22/19 09:05
40188009003	**T3-2**	Solid	05/20/19 09:15	05/22/19 09:05
40188009004	**B1-2**	Solid	05/20/19 09:20	05/22/19 09:05

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: 8608 HYDRITE
Pace Project No.: 40188009

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40188009001	T1-2	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G
40188009002	T2-2	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G
40188009003	T3-2	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G
40188009004	B1-2	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	PCG	1	PASI-G
		EPA 9045	ALY	1	PASI-G

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE
Pace Project No.: 40188009

Sample: T1-2 **Lab ID: 40188009001** Collected: 05/20/19 09:05 Received: 05/22/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**452**	mg/kg	57.0	27.7	1	05/23/19 07:46	05/23/19 14:10	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.6**	%	0.10	0.10	1		05/22/19 19:44		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**9.19**	Std. Units	0.100	0.0100	1		05/23/19 09:36		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE
Pace Project No.: 40188009

Sample: T2-2 **Lab ID: 40188009002** Collected: 05/20/19 09:10 Received: 05/22/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**769**	mg/kg	54.9	26.7	1	05/23/19 07:46	05/23/19 14:17	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.7**	%	0.10	0.10	1		05/22/19 19:45		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**9.95**	Std. Units	0.100	0.0100	1		05/23/19 09:39		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE
Pace Project No.: 40188009

Sample: T3-2 **Lab ID: 40188009003** Collected: 05/20/19 09:15 Received: 05/22/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**144**	mg/kg	59.8	29.1	1	05/23/19 07:46	05/23/19 14:20	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.1**	%	0.10	0.10	1		05/22/19 19:45		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**9.54**	Std. Units	0.100	0.0100	1		05/23/19 09:40		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: 8608 HYDRITE
Pace Project No.: 40188009

Sample: B1-2 **Lab ID: 40188009004** Collected: 05/20/19 09:20 Received: 05/22/19 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Sodium	**84.2**	mg/kg	55.4	26.9	1	05/23/19 07:46	05/23/19 14:22	7440-23-5	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.2**	%	0.10	0.10	1		05/22/19 19:45		
9045 pH Soil	Analytical Method: EPA 9045								
pH at 25 Degrees C	**8.47**	Std. Units	0.100	0.0100	1		05/23/19 09:42		H6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: 8608 HYDRITE
Pace Project No.: 40188009

QC Batch: 322172 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40188009001, 40188009002, 40188009003, 40188009004

METHOD BLANK: 1870747 Matrix: Solid
Associated Lab Samples: 40188009001, 40188009002, 40188009003, 40188009004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sodium	mg/kg	<24.3	50.0	05/23/19 14:05	

LABORATORY CONTROL SAMPLE: 1870748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sodium	mg/kg	500	512	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1870749 1870750

Parameter	Units	40188009001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sodium	mg/kg	452	568	568	991	1080	95	111	75-125	9	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.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: 8608 HYDRITE
Pace Project No.: 40188009

QC Batch: 322146 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40188009001, 40188009002, 40188009003, 40188009004

SAMPLE DUPLICATE: 1870675

Parameter	Units	40187993002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.4	18.0	8	10	

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.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: 8608 HYDRITE
Pace Project No.: 40188009

QC Batch: 322185 Analysis Method: EPA 9045
QC Batch Method: EPA 9045 Analysis Description: 9045 pH
Associated Lab Samples: 40188009001, 40188009002, 40188009003, 40188009004

SAMPLE DUPLICATE: 1870774

Parameter	Units	40187585002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	4.10	4.18	2	5	H6

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.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: 8608 HYDRITE
Pace Project No.: 40188009

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

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 8608 HYDRITE
Pace Project No.: 40188009

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40188009001	T1-2	EPA 3050	322172	EPA 6010	322271
40188009002	T2-2	EPA 3050	322172	EPA 6010	322271
40188009003	T3-2	EPA 3050	322172	EPA 6010	322271
40188009004	B1-2	EPA 3050	322172	EPA 6010	322271
40188009001	T1-2	ASTM D2974-87	322146		
40188009002	T2-2	ASTM D2974-87	322146		
40188009003	T3-2	ASTM D2974-87	322146		
40188009004	B1-2	ASTM D2974-87	322146		
40188009001	T1-2	EPA 9045	322185		
40188009002	T2-2	EPA 9045	322185		
40188009003	T3-2	EPA 9045	322185		
40188009004	B1-2	EPA 9045	322185		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

Pace Analytical®
www.pacelabs.com

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:	REI
Branch/Location:	Wausau
Project Contact:	Andy Delforge
Phone:	715-675-9784
Project Number:	8608
Project Name:	Hydrite
Project State:	WI
Sampled By (Print):	Brian J. Bailey
Sampled By (Sign):	[signature]
PO #:	
Regulatory Program:	

Quote #:	40188009
Mail To Contact:	Andy Delforge
Mail To Company:	REI
Mail To Address:	adelforge@reineyhuntyon.com
Invoice To Contact:	SAA
Invoice To Company:	↓
Invoice To Address:	↓
Invoice To Phone:	

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

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

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

FILTERED? (YES/NO) — Y/N
PRESERVATION (CODE)* — Pick Letter

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Sodium	pH	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	N			
					A	A			
001	T1-2	5/20/19	9:05A	S	X	X	Rush 5/23 per BB	Pg	
002	T2-2	↓	9:10	S	X	X			
003	T3-2		9:15	S	X	X			
004	B1-2	↓	9:20	S	X	X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed: 5/23/19 per BB

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:
[signature]	5/21/19 3:30pm		
Walton	05/22/19 0905	[signature]	05/22/19 0905

PACE Project No. 40188009

Receipt Temp = R01 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: Rei

Project # 40188069

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

Initial when completed:

Date/ Time:

Lab Lot# of pH paper:

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

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	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																					2												2.5 / 5 / 10
002																					2												2.5 / 5 / 10
003																					2												2.5 / 5 / 10
004																					2												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
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____

Headspace in VOA Vials (>6mm) : □Yes □No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

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

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40188009

40188009

Client Name: REI

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

Tracking #: 2062663-1

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 Paper

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

Cooler Temperature Uncorr: /Corr: R01

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: 05/22/19
Initials: AK

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:** 5-22-19