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

September 23, 2021

Rich Ellman
Full Service Organics Management LLC
3631 County Road C
Oconto Falls, WI 54154

RE: Project: NEWBERRY, MI
Pace Project No.: 40232130

Dear Rich Ellman:

Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

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

Sincerely,

Christopher Hyska

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

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

SAMPLE SUMMARY

Project: NEWBERRY, MI
Pace Project No.: 40232130

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40232130001	**NEWBERRY BIOSOLIDS**	Solid	08/23/21 12:00	08/23/21 14:30

(Please Print Clearly)	
Company Name:	FSO Management
Branch/Location:	-
Project Contact:	Rich Ellman
Phone:	920-373-6704
Project Number:	-
Project Name:	Newberry, MI
Project State:	MI
Sampled By (Print):	John Ramsier
Sampled By (Sign):	John Ramsier
PO #:	-
Regulatory Program:	MI EGLE

Pace Analytical®
www.pacelabs.com

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

Page 1 of 1

COC No. 40232130

CHAIN OF CUSTODY

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

Quote #:	N/A
Mail To Contact:	Rich Ellman
Mail To Company:	FSO Management LLC.
Mail To Address:	3631 County Rd C Oconto Falls, WI 54154
Invoice To Contact:	Rich Ellman
Invoice To Company:	FSO Management LLC.
Invoice To Address:	3631 County Rd C Oconto Falls, WI 54154
Invoice To Phone:	920-373-6704

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) PRESERVATION (CODE)* Y/N	Pick Letter	Analyses Requested: PFAS 537- MI EGLE 28 list	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile # 6784
001	Newberry Biosolids	8/23	13:00	SL		N	A			
							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:	rellman@fsomanagement.com
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
John Ramsier	8-23-21 14:30	Susan K Wyle Pace	8/23/21 1430

PACE Project No. 40232130

Receipt Temp = 1 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / ~~Not Present~~ Intact / ~~Not Intact~~

Version 6.0 06/14/06

C019a(27Jun2006)

Sample Preservation Receipt Form

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

Client Name: FSO Management Project # CL023230

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: AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP3U	BP3B	BP3N	BP3S	Vials: VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	JG9U	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																										2						2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
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

HB 8/23/21

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
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	125mL plastic unpreserved

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 26Mar2020
	Document No.: **ENV-FRM-GBAY-0014-Rev.00**	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO# : 40232130**

Client Name: FSO Management

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 - 165 **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 1.5 /Corr: 1

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 if shipped on Dry Ice.

Person examining contents:
Date: 8/23/21 /Initials: HB
Labeled By Initials: SKU

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

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: Newberry, MI

Project Number: 40232130

Lot Number:**WH25012**

Date Completed:09/23/2021

09/23/2021 2:11 PM
Approved and released by:
Project Manager II: **Karen L. Coonan**

Case Narrative
Pace Analytical Services, LLC
Lot Number: WH25012

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

Pace is a TNI accredited laboratory; however, the following reported analyses are currently not listed on our TNI scope of accreditation:

Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, Fecal Coliform SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, Solid Chemical Material: TOC Walkley-Black.

Where applicable, all soil sample results (including LOQ and DL if requested) are corrected for dry weight unless flagged with a "W" qualifier.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Due to sample matrix, sample WH25012-001 required centrifugation before a sample could be used for solid extraction. Sample was placed into a centrifuge bottle, where it was then centrifuged and the aqueous portion of the sample was decanted into the original bottle. The sample used for extraction was pulled from the solid plug left behind in the centrifuge bottle.

Due to the limited solid sample amount, the LOQ has been adjusted accordingly.

Surrogate recovery for the sample, MS and MSD for WH25012-001 was outside the upper control limit. This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Sample Summary
Pace Analytical Services, LLC
Lot Number: WH25012
Project Name: Newberry, MI
Project Number: 40232130

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	NEWBERRY BIOSOLIDS	Solid	08/23/2021 1200	08/25/2021

(1 sample)

Detection Summary

Pace Analytical Services, LLC

Lot Number: WH25012

Project Name: Newberry, MI

Project Number: 40232130

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	NEWBERRY BIOSOLIDS	Solid	EtFOSAA	PFAS by ID	8.8	J	ug/kg	5
001	NEWBERRY BIOSOLIDS	Solid	MeFOSAA	PFAS by ID	17	J	ug/kg	5
001	NEWBERRY BIOSOLIDS	Solid	PFDA	PFAS by ID	2.0	J	ug/kg	5
001	NEWBERRY BIOSOLIDS	Solid	PFHxA	PFAS by ID	2.4	J	ug/kg	5

(4 detections)

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC** Laboratory ID: **WH25012-001**

Description: **NEWBERRY BIOSOLIDS** Matrix: **Solid**

Date Sampled: **08/23/2021 1200** Project Name: **Newberry, MI** % Solids: **8.05** **09/20/2021 2245**

Date Received: **08/25/2021** Project Number: **40232130**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	09/21/2021 1810	JJG	09/20/2021 1859	15910

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		24	1.9	ug/kg	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		24	2.1	ug/kg	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	Q	24	3.3	ug/kg	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		24	3.7	ug/kg	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		24	2.6	ug/kg	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		49	7.1	ug/kg	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		24	1.8	ug/kg	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	**2991-50-6**	**PFAS by ID SOP**	**8.8**	**J**	**24**	**3.5**	**ug/kg**	**1**
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	**2355-31-9**	**PFAS by ID SOP**	**17**	**J**	**24**	**4.8**	**ug/kg**	**1**
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		12	1.6	ug/kg	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		12	2.7	ug/kg	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		12	2.1	ug/kg	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		12	2.7	ug/kg	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		12	2.2	ug/kg	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		12	2.3	ug/kg	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		12	2.1	ug/kg	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		12	5.1	ug/kg	1
Perfluoro-n-decanoic acid (PFDA)	**335-76-2**	**PFAS by ID SOP**	**2.0**	**J**	**12**	**1.9**	**ug/kg**	**1**
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		12	2.1	ug/kg	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		12	1.7	ug/kg	1
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**2.4**	**J**	**12**	**2.3**	**ug/kg**	**1**
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		12	1.8	ug/kg	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		12	2.6	ug/kg	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		12	1.9	ug/kg	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		12	2.3	ug/kg	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		12	2.1	ug/kg	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		12	2.3	ug/kg	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		12	4.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		147	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS	N	170	25-150
13C2_PFDoA		73	25-150
13C2_PFTeDA		71	25-150
13C3_PFBS		87	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		91	25-150
13C4_PFBA		93	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		96	25-150
13C6_PFDA		91	25-150
13C7_PFUdA		110	25-150

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC** Laboratory ID: **WH25012-001**

Description: **NEWBERRY BIOSOLIDS** Matrix: **Solid**

Date Sampled: **08/23/2021 1200** Project Name: **Newberry, MI** % Solids: **8.05** **09/20/2021 2245**

Date Received: **08/25/2021** Project Number: **40232130**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C8_PFOA		95	25-150
13C8_PFOS		87	25-150
13C8_PFOSA		101	10-150
13C9_PFNA		95	25-150
d5-EtFOSAA		123	25-150
d3-MeFOSAA		118	25-150

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ15910-001
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9Cl-PF3ONS	ND		1	2.0	0.16	ug/kg	09/21/2021 1749
11Cl-PF3OUdS	ND		1	2.0	0.17	ug/kg	09/21/2021 1749
8:2 FTS	ND		1	2.0	0.27	ug/kg	09/21/2021 1749
6:2 FTS	ND		1	2.0	0.31	ug/kg	09/21/2021 1749
4:2 FTS	ND		1	2.0	0.22	ug/kg	09/21/2021 1749
GenX	ND		1	4.0	0.58	ug/kg	09/21/2021 1749
ADONA	ND		1	2.0	0.15	ug/kg	09/21/2021 1749
EtFOSAA	ND		1	2.0	0.29	ug/kg	09/21/2021 1749
MeFOSAA	ND		1	2.0	0.40	ug/kg	09/21/2021 1749
PFBS	ND		1	1.0	0.13	ug/kg	09/21/2021 1749
PFDS	ND		1	1.0	0.22	ug/kg	09/21/2021 1749
PFHpS	ND		1	1.0	0.18	ug/kg	09/21/2021 1749
PFNS	ND		1	1.0	0.22	ug/kg	09/21/2021 1749
PFOSA	ND		1	1.0	0.18	ug/kg	09/21/2021 1749
PFPeS	ND		1	1.0	0.19	ug/kg	09/21/2021 1749
PFHxS	ND		1	1.0	0.18	ug/kg	09/21/2021 1749
PFBA	ND		1	1.0	0.42	ug/kg	09/21/2021 1749
PFDA	ND		1	1.0	0.16	ug/kg	09/21/2021 1749
PFDoA	ND		1	1.0	0.18	ug/kg	09/21/2021 1749
PFHpA	ND		1	1.0	0.14	ug/kg	09/21/2021 1749
PFHxA	ND		1	1.0	0.18	ug/kg	09/21/2021 1749
PFNA	ND		1	1.0	0.15	ug/kg	09/21/2021 1749
PFOA	ND		1	1.0	0.21	ug/kg	09/21/2021 1749
PFPeA	ND		1	1.0	0.16	ug/kg	09/21/2021 1749
PFTeDA	ND		1	1.0	0.19	ug/kg	09/21/2021 1749
PFTrDA	ND		1	1.0	0.17	ug/kg	09/21/2021 1749
PFUdA	ND		1	1.0	0.18	ug/kg	09/21/2021 1749
PFOS	ND		1	1.0	0.36	ug/kg	09/21/2021 1749

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		94	25-150
13C2_6:2FTS		79	25-150
13C2_8:2FTS		106	25-150
13C2_PFDoA		91	25-150
13C2_PFTeDA		95	25-150
13C3_PFBS		89	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBA		93	25-150
13C4_PFHpA		98	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		94	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ15910-001
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Surrogate	Q	% Rec	Acceptance Limit
13C6_PFDA		90	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		97	25-150
13C8_PFOS		89	25-150
13C8_PFOSA		95	10-150
13C9_PFNA		92	25-150
d5-EtFOSAA		93	25-150
d3-MeFOSAA		100	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ15910-002
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9Cl-PF3ONS	1.9	1.6		1	89	50-150	09/21/2021 1759
11Cl-PF3OUdS	1.9	1.7		1	91	50-150	09/21/2021 1759
8:2 FTS	1.9	2.0		1	102	50-150	09/21/2021 1759
6:2 FTS	1.9	1.3		1	69	50-150	09/21/2021 1759
4:2 FTS	1.9	1.9		1	104	50-150	09/21/2021 1759
GenX	4.0	3.7		1	93	50-150	09/21/2021 1759
ADONA	1.9	1.8		1	97	50-150	09/21/2021 1759
EtFOSAA	2.0	1.4		1	71	50-150	09/21/2021 1759
MeFOSAA	2.0	1.6		1	82	50-150	09/21/2021 1759
PFBS	1.8	1.7		1	94	50-150	09/21/2021 1759
PFDS	1.9	1.5		1	77	50-150	09/21/2021 1759
PFHpS	1.9	1.9		1	99	50-150	09/21/2021 1759
PFNS	1.9	1.7		1	88	50-150	09/21/2021 1759
PFOSA	2.0	1.9		1	96	50-150	09/21/2021 1759
PFPeS	1.9	1.9		1	101	50-150	09/21/2021 1759
PFHxS	1.8	1.8		1	99	50-150	09/21/2021 1759
PFBA	2.0	1.9		1	96	50-150	09/21/2021 1759
PFDA	2.0	1.9		1	93	50-150	09/21/2021 1759
PFDoA	2.0	1.9		1	95	50-150	09/21/2021 1759
PFHpA	2.0	1.9		1	96	50-150	09/21/2021 1759
PFHxA	2.0	1.9		1	95	50-150	09/21/2021 1759
PFNA	2.0	2.0		1	99	50-150	09/21/2021 1759
PFOA	2.0	1.8		1	88	50-150	09/21/2021 1759
PFPeA	2.0	1.8		1	92	50-150	09/21/2021 1759
PFTeDA	2.0	1.9		1	97	50-150	09/21/2021 1759
PFTrDA	2.0	2.0		1	99	50-150	09/21/2021 1759
PFUdA	2.0	1.8		1	91	50-150	09/21/2021 1759
PFOS	1.9	1.6		1	84	50-150	09/21/2021 1759

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		98	25-150
13C2_6:2FTS		85	25-150
13C2_8:2FTS		106	25-150
13C2_PFDoA		92	25-150
13C2_PFTeDA		97	25-150
13C3_PFBS		95	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		98	25-150
13C4_PFBA		96	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		100	25-150
13C5_PFPeA		99	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ15910-002
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Surrogate	Q	% Rec	Acceptance Limit
13C6_PFDA		102	25-150
13C7_PFUdA		101	25-150
13C8_PFOA		99	25-150
13C8_PFOS		94	25-150
13C8_PFOSA		100	10-150
13C9_PFNA		95	25-150
d5-EtFOSAA		97	25-150
d3-MeFOSAA		105	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WH25012-001MS
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9Cl-PF3ONS	ND	1.6	1.5		1	92	50-150	09/21/2021 1821
11Cl-PF3OUdS	ND	1.7	1.4		1	84	50-150	09/21/2021 1821
8:2 FTS	ND	1.7	1.5		1	89	50-150	09/21/2021 1821
6:2 FTS	ND	1.7	0.85		1	52	50-150	09/21/2021 1821
4:2 FTS	ND	1.6	1.5		1	94	50-150	09/21/2021 1821
GenX	ND	3.5	3.6		1	102	50-150	09/21/2021 1821
ADONA	ND	1.7	1.7		1	104	50-150	09/21/2021 1821
EtFOSAA	8.8	1.8	2.3		1	89	50-150	09/21/2021 1821
MeFOSAA	17	1.8	2.8		1	83	50-150	09/21/2021 1821
PFBS	ND	1.6	1.4		1	93	50-150	09/21/2021 1821
PFDS	ND	1.7	1.5		1	90	50-150	09/21/2021 1821
PFHpS	ND	1.7	1.3		1	79	50-150	09/21/2021 1821
PFNS	ND	1.7	1.7		1	102	50-150	09/21/2021 1821
PFOSA	ND	1.8	1.7		1	98	50-150	09/21/2021 1821
PFPeS	ND	1.6	1.6		1	96	50-150	09/21/2021 1821
PFHxS	ND	1.6	1.5		1	97	50-150	09/21/2021 1821
PFBA	ND	1.8	1.8		1	101	50-150	09/21/2021 1821
PFDA	2.0	1.8	1.8		1	96	50-150	09/21/2021 1821
PFDoA	ND	1.8	1.8		1	103	50-150	09/21/2021 1821
PFHpA	ND	1.8	1.7		1	98	50-150	09/21/2021 1821
PFHxA	2.4	1.8	1.9		1	95	50-150	09/21/2021 1821
PFNA	ND	1.8	1.8		1	103	50-150	09/21/2021 1821
PFOA	ND	1.8	1.8		1	101	50-150	09/21/2021 1821
PFPeA	ND	1.8	1.7		1	98	50-150	09/21/2021 1821
PFTeDA	ND	1.8	1.8		1	104	50-150	09/21/2021 1821
PFTrDA	ND	1.8	1.3		1	72	50-150	09/21/2021 1821
PFUdA	ND	1.8	1.8		1	103	50-150	09/21/2021 1821
PFOS	ND	1.6	2.0		1	121	50-150	09/21/2021 1821

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		147	25-150
13C2_6:2FTS		122	25-150
13C2_8:2FTS	N	188	25-150
13C2_PFDoA		71	25-150
13C2_PFTeDA		63	25-150
13C3_PFBS		89	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		89	25-150
13C4_PFBA		87	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		92	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WH25012-001MS
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Surrogate	Q	% Rec	Acceptance Limit
13C6_PFDA		94	25-150
13C7_PFUdA		104	25-150
13C8_PFOA		90	25-150
13C8_PFOS		84	25-150
13C8_PFOSA		93	10-150
13C9_PFNA		92	25-150
d5-EtFOSAA		114	25-150
d3-MeFOSAA		127	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MSD

Sample ID: WH25012-001MD
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
9Cl-PF3ONS	ND	1.8	1.6		1	90	7.6	50-150	30	09/21/2021 1831
11Cl-PF3OUdS	ND	1.8	1.5		1	81	5.7	50-150	30	09/21/2021 1831
8:2 FTS	ND	1.9	1.7		1	90	12	50-150	30	09/21/2021 1831
6:2 FTS	ND	1.8	1.2	+	1	66	34	50-150	30	09/21/2021 1831
4:2 FTS	ND	1.8	1.4		1	78	8.1	50-150	30	09/21/2021 1831
GenX	ND	3.9	3.8		1	99	7.7	50-150	30	09/21/2021 1831
ADONA	ND	1.8	2.0		1	108	14	50-150	30	09/21/2021 1831
EtFOSAA	8.8	1.9	2.4		1	89	6.9	50-150	30	09/21/2021 1831
MeFOSAA	17	1.9	3.0		1	87	7.9	50-150	30	09/21/2021 1831
PFBS	ND	1.7	1.6		1	95	12	50-150	30	09/21/2021 1831
PFDS	ND	1.9	1.9		1	100	21	50-150	30	09/21/2021 1831
PFHpS	ND	1.8	1.6		1	89	21	50-150	30	09/21/2021 1831
PFNS	ND	1.9	1.8		1	96	4.2	50-150	30	09/21/2021 1831
PFOSA	ND	1.9	1.9		1	100	13	50-150	30	09/21/2021 1831
PFPeS	ND	1.8	2.0		1	107	21	50-150	30	09/21/2021 1831
PFHxS	ND	1.8	1.7		1	96	8.7	50-150	30	09/21/2021 1831
PFBA	ND	1.9	1.9		1	100	8.8	50-150	30	09/21/2021 1831
PFDA	2.0	1.9	2.0		1	93	6.5	50-150	30	09/21/2021 1831
PFDoA	ND	1.9	2.0		1	105	12	50-150	30	09/21/2021 1831
PFHpA	ND	1.9	2.0		1	101	13	50-150	30	09/21/2021 1831
PFHxA	2.4	1.9	2.0		1	91	5.2	50-150	30	09/21/2021 1831
PFNA	ND	1.9	1.8		1	92	1.2	50-150	30	09/21/2021 1831
PFOA	ND	1.9	1.7		1	88	3.9	50-150	30	09/21/2021 1831
PFPeA	ND	1.9	1.9		1	96	9.2	50-150	30	09/21/2021 1831
PFTeDA	ND	1.9	2.0		1	103	9.5	50-150	30	09/21/2021 1831
PFTrDA	ND	1.9	1.3		1	68	4.2	50-150	30	09/21/2021 1831
PFUdA	ND	1.9	2.1		1	108	14	50-150	30	09/21/2021 1831
PFOS	ND	1.8	2.0		1	111	2.0	50-150	30	09/21/2021 1831

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		150	25-150
13C2_6:2FTS		114	25-150
13C2_8:2FTS	N	213	25-150
13C2_PFDoA		70	25-150
13C2_PFTeDA		62	25-150
13C3_PFBS		89	25-150
13C3_PFHxS		90	25-150
13C3-HFPO-DA		89	25-150
13C4_PFBA		89	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		96	25-150
13C5_PFPeA		93	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MSD

Sample ID: WH25012-001MD
Batch: 15910
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 09/20/2021 1859

Surrogate	Q	% Rec	Acceptance Limit
13C6_PFDA		94	25-150
13C7_PFUdA		104	25-150
13C8_PFOA		92	25-150
13C8_PFOS		84	25-150
13C8_PFOSA		90	10-150
13C9_PFNA		97	25-150
d5-EtFOSAA		124	25-150
d3-MeFOSAA		129	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: MI
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 8/23/2021 Results Requested By: 9/16/2021

Workorder: 40232130 Workorder Name: NEWBERRY MI

Pace Analytical
www.pacelabs.com

Report To	Subcontract To	Requested Analysis
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite-9 Green Bay, WI 54302 Phone (920)469-2436	Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700	

WH25012
KLC2

Item	Sample ID	Sample Type	Collected Date/Time	Lab ID	Matrix	Unpreserved	Preserved Containers					Dry Weight	MI EGLE (26) PFAS by ID										LAB USE ONLY
1	NEWBERRY BIOSOLIDS	PS	8/23/2021 12:00	40232130001	Solid	2						X	X										
2																							
3																							
4																							
5																							

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	8/24/21 1000		
2				
3	UPS	8.25.21 945	Keegan Means	8.25.21 945

Comments:
See attached list and please report to MDL.
Need DL <20 ug/kg dry if possible

Cooler Temperature on Receipt 2.4 °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PACE ANALYTICAL SERVICES, LLC

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Pace Analytical®
www.pacelabs.com

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

COC No. 40252150

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:	FSO Management
Branch/Location:	-
Project Contact:	Rich Ellman
Phone:	920-373-6704
Project Number:	-
Project Name:	Newberry, MI
Project State:	MI
Sampled By (Print):	John Ransier
Sampled By (Sign):	
PO #:	-
Regulatory Program:	MI EGLE

Quote #:	N/A
Mail To Contact:	Rich Ellman
Mail To Company:	FSO Management LLC.
Mail To Address:	3631 County Rd C Oconto Falls, WI 54154
Invoice To Contact:	Rich Ellman
Invoice To Company:	FSO Management LLC.
Invoice To Address:	3631 County Rd C Oconto Falls, WI 54154
Invoice To Phone:	920-373-6704

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)	PRESERVATION (CODE)*	Analysis Requested: PFAS 537- MI EGLE 28 list	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile # 6784
					Y / N	N				
					Pick Letter	A				
001	Newberry Biosolids	8/23	12:00	SL			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: reilman@fsomanagement.com
Email #2:
Telephone:
Fax:

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
John Ransier	8-23-21 14:30	Susan Kluge	8/23/21 1430
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By	Date/Time:

PACE Project No. 40252150

Receipt Temp = 1 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version: 6.0 05JAN18

C018e(07-Jun-2006)

Sample Preservation Receipt Form

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

Client Name: FSD Management Project # 40232130

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

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

Initial when completed: Date/ Time:

Pace Lab #	Glass AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic BP1U	BP3U	BP3B	BP3N	BP3S	Vials VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars JGFU	JG9U	WGFU	WPFU	General SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																										2							2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
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

HB 8/23/21

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	VG9A	40 mL clear ascorbic	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U	100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S	500 mL amber glass H2SO4					X GN	125 mL plastic, unpreserved
BG3U	250 mL clear glass unpres						

F-GB-C-046-Rev.03 (11Feb2020) Sample Preservation Receipt Form

Page 1 of 2

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40232130

40232130

Client Name: ESO Management

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 - 165 **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2.5 /Corr:

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

Person examining contents:
Date: 8/23/21 /Initials: MB

Temp should be above freezing to 6°C.
Biota Samples may be received at < 0°C if shipped on Dry Ice.

Labeled By Initials:

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:

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: Pace

Cooler Inspected by/date: KDRW / 08/25/2021 Lot #: WH25010

Means of receipt: ☐ Pace ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: 21-1425

2.4 / 2.4 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: KDRW Date: 08/25/2021

Comments: