



Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 16, 2018

Andy Nasset
Twin City Germain Immersion School
1031 Como Ave
Saint Paul, MN 55103

RE: Project: Drinking Waters
Pace Project No.: 10430179

Dear Andy Nasset:

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

This report was revised on May 16, 2018 to change the reporting units.

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

Sincerely,

Sylvia Hunter
sylvia.hunter@pacelabs.com
1(612)607-1700
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Drinking Waters
Pace Project No.: 10430179

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064

Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #: 74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: Drinking Waters
Pace Project No.: 10430179

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10430179001	WF-Gym	Water	05/05/18 06:45	05/07/18 11:58
10430179002	WF-Cafeteria	Water	05/05/18 06:45	05/07/18 11:58
10430179003	WF-1	Water	05/05/18 06:42	05/07/18 11:58
10430179004	WF-2	Water	05/05/18 06:42	05/07/18 11:58
10430179005	WF-3	Water	05/05/18 06:43	05/07/18 11:58
10430179006	T.L. Sink	Water	05/05/18 06:40	05/07/18 11:58
10430179007	KS	Water	05/05/18 07:30	05/07/18 11:58

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SAMPLE ANALYTE COUNT

Project: Drinking Waters
Pace Project No.: 10430179

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10430179001	WF-Gym	EPA 200.8	WBS	1	PASI-M
10430179002	WF-Cafeteria	EPA 200.8	WBS	1	PASI-M
10430179003	WF-1	EPA 200.8	WBS	1	PASI-M
10430179004	WF-2	EPA 200.8	WBS	1	PASI-M
10430179005	WF-3	EPA 200.8	WBS	1	PASI-M
10430179006	T.L. Sink	EPA 200.8	WBS	1	PASI-M
10430179007	KS	EPA 200.8	WBS	1	PASI-M

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ANALYTICAL RESULTS

Project: Drinking Waters
 Pace Project No.: 10430179

Sample: WF-Gym		Lab ID: 10430179001		Collected: 05/05/18 06:45	Received: 05/07/18 11:58	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS, DW		Analytical Method: EPA 200.8								
Lead	ND	ppb	0.10	0.010	1		05/14/18 15:50	7439-92-1		

Sample: WF-Cafeteria		Lab ID: 10430179002		Collected: 05/05/18 06:45	Received: 05/07/18 11:58	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS, DW		Analytical Method: EPA 200.8								
Lead	ND	ppb	0.10	0.010	1		05/14/18 15:42	7439-92-1		

Sample: WF-1		Lab ID: 10430179003		Collected: 05/05/18 06:42	Received: 05/07/18 11:58	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS, DW		Analytical Method: EPA 200.8								
Lead	ND	ppb	0.10	0.010	1		05/14/18 15:43	7439-92-1		

Sample: WF-2		Lab ID: 10430179004		Collected: 05/05/18 06:42	Received: 05/07/18 11:58	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS, DW		Analytical Method: EPA 200.8								
Lead	ND	ppb	0.10	0.010	1		05/14/18 15:57	7439-92-1		

Sample: WF-3		Lab ID: 10430179005		Collected: 05/05/18 06:43	Received: 05/07/18 11:58	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS, DW		Analytical Method: EPA 200.8								
Lead	0.22	ppb	0.10	0.010	1		05/14/18 15:59	7439-92-1		

Sample: T.L. Sink		Lab ID: 10430179006		Collected: 05/05/18 06:40	Received: 05/07/18 11:58	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS, DW		Analytical Method: EPA 200.8								
Lead	0.89	ppb	0.10	0.010	1		05/14/18 16:00	7439-92-1		

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ANALYTICAL RESULTS

Project: Drinking Waters
Pace Project No.: 10430179

Sample: KS		Lab ID: 10430179007		Collected: 05/05/18 07:30		Received: 05/07/18 11:58		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, DW		Analytical Method: EPA 200.8							
Lead	1.1	ppb	0.10	0.010	1		05/14/18 16:02	7439-92-1	

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QUALITY CONTROL DATA

Project: Drinking Waters
 Pace Project No.: 10430179

QC Batch: 536987 Analysis Method: EPA 200.8
 QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, Drinking Water
 Associated Lab Samples: 10430179001, 10430179002, 10430179003, 10430179004, 10430179005, 10430179006, 10430179007

METHOD BLANK: 2919218 Matrix: Water
 Associated Lab Samples: 10430179001, 10430179002, 10430179003, 10430179004, 10430179005, 10430179006, 10430179007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	ppb	ND	0.10	0.010	05/14/18 15:29	

LABORATORY CONTROL SAMPLE: 2919219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ppb	100	101	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2925958 2925959

Parameter	Units	10430179001 Result	MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result						
Lead	ppb	ND	100	100	97.9	97.3	98	97	70-130	1	20	

MATRIX SPIKE SAMPLE: 2925960

Parameter	Units	10430180004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ppb	4.3 ug/L	100	101	97	70-130	

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.

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QUALIFIERS

Project: Drinking Waters

Pace Project No.: 10430179

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 adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

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.

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-M Pace Analytical Services - Minneapolis

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Drinking Waters
Pace Project No.: 10430179

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10430179001	WF-Gym	EPA 200.8	536987		
10430179002	WF-Cafeteria	EPA 200.8	536987		
10430179003	WF-1	EPA 200.8	536987		
10430179004	WF-2	EPA 200.8	536987		
10430179005	WF-3	EPA 200.8	536987		
10430179006	T.L. Sink	EPA 200.8	536987		
10430179007	KS	EPA 200.8	536987		

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CHAIN-OF-CUSTODY / Analytical Request Document

WO#: 10430179



Section A
 Required Client Information:
 Company: TCGIS
 Address: 1031 Como Ave
St Paul MN 55103
 Email To: anestat@tcgis.com
 Phone: 63-221-3841
 Requested Due Date/TAT: _____

Section B
 Required Project Information:
 Report To: _____
 Copy To: _____
 Purchase Order No.: _____
 Project Name: _____
 Project Number: _____

Section C
 Invoice Information:
 Attention: _____
 Company Name: _____
 Address: _____
 Pace Quote Reference: _____
 Pace Project Manager: _____
 Pace Profile #: _____

REGULATORY AGENCY
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

Site Location: _____
 STATE: _____

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑ Y/N ↓	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB							
1	WF - Oxygen	DW		DATE	TIME	DATE	TIME	Unpreserved				001
2	WF - Coliform	WT		6:45	5/5/18	6:42	6:43	H ₂ SO ₄				002
3	WF - 1	WW		6:45	"	6:42	6:42	NaOH				003
4	WF - 2	P		6:42	"	6:42	6:42	HCl				004
5	WF - 3	SL		6:43	"			HNO ₃				005
6	T.L. Sludge	OL		6:40	"			H ₂ SO ₄				006
7	KS -	WP		7:30	"			Other				007
8		AR						Methanol				
9		TS						Na ₂ S ₂ O ₅				
10		OT						Other				
11												
12												

ADDITIONAL COMMENTS
 Andy Anestat 5/7/18 11:58 AM
 Andy Anestat 5/7/18 11:58 AM
 Andy Anestat 5/7/18 11:58 AM

RELINQUISHED BY / AFFILIATION
 DATE TIME


ACCEPTED BY / AFFILIATION
 DATE TIME

SAMPLE CONDITIONS
 Received on Ice (Y/N) _____
 Custody Sealed Cooler (Y/N) _____
 Samples Intact (Y/N) _____

Temp in °C
 21.2 21.2

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Andy Anestat
 SIGNATURE of SAMPLER: [Signature]
 DATE SIGNED (MM/DD/YYYY): _____

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 02May2018 Page 1 of 2
	Document No.: F-MN-L-213-rev.23	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt	Client Name: <u>TCGIS</u>	Project #: WO#: 10430179
Courier: <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input checked="" type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> SpeeDee <input type="checkbox"/> Other: _____	PM: SH1 Due Date: 05/14/18 CLIENT: TC German	
Tracking Number: _____		

Custody Seal on Cooler/Box Present? Yes No **Seals Intact?** Yes No **Optional:** Proj. Due Date: _____ Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other: _____ **Temp Blank?** Yes No

Thermometer Used: G87A9170600254 G87A9155100842 **Type of Ice:** Wet Blue None Dry Melted

Cooler Temp Read (°C): 21.3 **Cooler Temp Corrected (°C):** 21.2 **Biological Tissue Frozen?** Yes No N/A
Temp should be above freezing to 6°C **Correction Factor:** -0.1 **Date and Initials of Person Examining Contents:** rv 5/11/18

USDA Regulated Soil (N/A, water sample) **Did samples originate in a quarantine zone within the United States:** AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? Yes No **Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?** Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

	COMMENTS:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: <u>WT</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH Positive for Res. Chlorine? Y N
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Sample # <u>1-7</u>
Headspace in VOA Vials (>6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Initial when completed: <u>rv</u> Lot # of added preservative: <u>423 111710</u>
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Pace Trip Blank Lot # (if purchased): _____	


CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: [Signature] **Date:** 5/8/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 14Dec2017 Page 2 of 2
	Document No.: F-MN-L-213-rev.22	Issuing Authority: Pace Minnesota Quality Office

SCUR Exceptions:

Workorder #:

Issue	Sample ID	Container Type/#

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH Upon Receipt	Date Preservation Adjusted	Time Preservation Adjusted	Amount of Additional Preservative Added	Lot # of Preservative Added	pH After Adjustment	Initials
WF-Gym	HNO ₃	26	5/7/18	1515	1.0ml	1117116	2	bv
WF-Cafeteria	"	4	"	"	"	"	4	bv
WF-1	"	4	"	"	"	"	4	bv
WF-2	"	4	"	"	"	"	4	kv
WF 3	"	4	"	"	"	"	4	bv
T.L. Sink	"	4	"	"	"	"	4	kv
KS	"	4	"	"	"	11	4	kv