

ANALYTICAL REPORT

Client: Shell Lake Waterworks
 Attn: Mitch Brown
 55 Ritchie Road
 P O Box 520
 Shell Lake, WI 54871 0520

NLS Project: 385829

NLS Customer: 31490

Fax: 715 468 7638 Phone: 715 468 7873

Project: Lake Testing

Main Basin Top NLS ID: 1315641

COC: 268411:1 Matrix: SW

Collected: 06/01/22 14:00 Received: 06/02/22

Notes: Noncompliance: Sample received and analyzed past EPA 8-hour hold time which is required for compliance samples.

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	See Attached					06/07/22	10200-H	721026460
E.coli by Enzymatic Substrate	ND	MPN/100mls	1	1.0*		06/02/22	SM 9223-B 20ed	105330
Phosphorus, tot. as P	[0.010]	mg/L	1	0.0090	0.030	06/06/22	4500-P F-1999	721026460
Lab filtration for Chlorophyll	yes					06/06/22	NA	721026460

Main Basin Bottom NLS ID: 1315642

COC: 268411:3 Matrix: SW

Collected: 06/01/22 14:00 Received: 06/02/22

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	See Attached					06/07/22	10200-H	721026460
Phosphorus, tot. as P	[0.011]	mg/L	1	0.0090	0.030	06/06/22	4500-P F-1999	721026460
Lab filtration for Chlorophyll	yes					06/06/22	NA	721026460

S. Basin Top NLS ID: 1315643

COC: 268411:4 Matrix: SW

Collected: 06/01/22 14:15 Received: 06/02/22

Notes: Noncompliance: Sample received and analyzed past EPA 8-hour hold time which is required for compliance samples.

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	See Attached					06/07/22	10200-H	721026460
E.coli by Enzymatic Substrate	ND	MPN/100mls	1	1.0*		06/02/22	SM 9223-B 20ed	105330
Phosphorus, tot. as P	[0.011]	mg/L	1	0.0090	0.030	06/06/22	4500-P F-1999	721026460
Lab filtration for Chlorophyll	yes					06/06/22	NA	721026460

S. Basin Bottom NLS ID: 1315644

COC: 268411:6 Matrix: SW

Collected: 06/01/22 14:15 Received: 06/02/22

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	See Attached					06/07/22	10200-H	721026460
Phosphorus, tot. as P	[0.010]	mg/L	1	0.0090	0.030	06/06/22	4500-P F-1999	721026460
Lab filtration for Chlorophyll	yes					06/06/22	NA	721026460

S.W. Basin Top NLS ID: 1315645

COC: 268411:7 Matrix: SW

Collected: 06/01/22 14:30 Received: 06/02/22

Notes: Noncompliance: Sample received and analyzed past EPA 8-hour hold time which is required for compliance samples.

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	See Attached					06/07/22	10200-H	721026460
E.coli by Enzymatic Substrate	ND	MPN/100mls	1	1.0*		06/02/22	SM 9223-B 20ed	105330
Phosphorus, tot. as P	[0.012]	mg/L	1	0.0090	0.030	06/06/22	4500-P F-1999	721026460
Lab filtration for Chlorophyll	yes					06/06/22	NA	721026460

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

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Attn: Mitch Brown
55 Ritchie Road
P O Box 520
Shell Lake, WI 54871 0520

NLS Project: 385829

NLS Customer: 31490

Fax: 715 468 7638 Phone: 715 468 7873

Project: Lake Testing

S.W. Basin Bottom NLS ID: 1315646

COC: 268411:9 Matrix: SW

Collected: 06/01/22 14:30 Received: 06/02/22

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	See Attached					06/07/22	10200-H	721026460
Phosphorus, tot. as P	[0.013]	mg/L	1	0.0090	0.030	06/06/22	4500-P F-1999	721026460
Lab filtration for Chlorophyll	yes					06/06/22	NA	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable

DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L

MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:



Authorized by:
R. T. Krueger
President

For Terms and Conditions please see www.nslab.com

Northern Lake Service, Inc.
Chlorophyll Results

Customer: Shell Lake Waterworks

Project: 385829

Lake Testing

<u>Sample</u>	<u>Description</u>	<u>CC a</u>	<u>Pheo a</u>	<u>TC a</u>	<u>TC b</u>	<u>TC c</u>
1315641	Main Basin Top	1.4	0.17	1.6	0.34	0.63
1315642	Main Basin Bottom	1.3	0.63	1.7	0.33	0.61
1315643	S. Basin Top	1.3	0.52	1.6	0.31	0.63
1315644	S. Basin Bottom	2.3	0.94	3	0.45	1.1
1315645	S.W. Basin Top	0.82	0.098	0.89	0.13	0.38
1315646	S.W. Basin Bottom	5.3	1.4	6.3	0.37	1.2

CC a = Corrected Chlorophyll a

Pheo a = Pheophytin a

TC a = Trichromatic Chlorophyll a

TC b = Trichromatic Chlorophyll b

TC c = Trichromatic Chlorophyll c

Units = ug/L for Water, ug/cm² for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services
 400 North Lake Avenue • Crandon, WI 54520-1298
 Tel: (715) 478-2777 • Fax: (715) 478-3060

CLIENT CITY OF SHELL LAKE
ADDRESS PO BOX 520
CITY SHELL LAKE **STATE** WI **ZIP** 54871
PROJECT DESCRIPTION / NO. LAKE TESTING **QUOTATION NO.**
DNR FID # **DNR LICENSE #**
CONTACT TRITCH BROWN **PHONE** 715 416 0547
PURCHASE ORDER NO. **FAX**

Wisconsin DNR cert ID
 721026460 (Cran) / 268533760 (Wauk)
Wisconsin DATCP ID
 105-000330 (Cran) / 105-000479 (Wauk)

MATRIX:
 SW = surface water
 WW = waste water
 GW = ground water
 DW = drinking water
 TIS = tissue
 AIR = air
 SOIL = soil
 SED = sediment
 PROD = product
 SL = sludge
 OTHER

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.
 Indicate G or C if WW Sample is Grab or Composite.

ANALYZE PER ORDER OF ANALYSIS	TOTAL Phos														
	CHLOROPHYLL A														
	E. COLI	X													



ITEM NO.	NLS LAB. NO.	SAMPLE ID	COLLECTION		MATRIX (See above)	ANALYZE PER ORDER OF ANALYSIS										COLLECTION REMARKS (i.e. DNR Well ID #)		
			DATE	TIME		TOTAL Phos	CHLOROPHYLL A	E. COLI										
1	B15241	MAIN BASIN TOP	6-1-22	2:00	SW			X										
2		MAIN BASIN TOP		2:00		X	X											
3	L42	MAIN BASIN BOTTOM		2:00		X	X											
4	L43	S. BASIN TOP		2:15				X										
5		S. BASIN TOP		2:15		X	X											
6	L44	S. BASIN BOTTOM		2:15		X	X											
7	L45	S.W. BASIN TOP		2:30				X										
8		S.W. BASIN TOP		2:30		X	X											
9	L46	S.W. BASIN BOTTOM		2:30		X	X											
10																		

COLLECTED BY (signature) TRITCH BROWN **CUSTODY SEAL NO. (IF ANY)**
RELINQUISHED BY (signature) TRITCH BROWN **RECEIVED BY (signature)**
DISPATCHED BY (signature) **METHOD OF TRANSPORT**
DATE/TIME 6-1-22

REPORT TO
 ADDRESS ABOVE
INVOICE TO
 11 11

RECEIVED AT NLS BY (signature) **DATE/TIME** 6/2/22 **CONDITION** OK **TEMP** 2.4
REMARKS & OTHER INFORMATION **COOLER #** **WDNR FACILITY NUMBER** **E-MAIL ADDRESS**

PRESERVATIVE:
 NP = no preservative
 S = sulfuric acid
 N = nitric acid
 Z = zinc acetate
 M = methanol
 OH = sodium hydroxide
 HA = hydrochloric & ascorbic acid
 H = hydrochloric acid

IMPORTANT:

1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
 2. PLEASE USE ONE LINE PER SAMPLE, NOT PER BOTTLE.
 3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP YELLOW COPY.
 4. PARTIES COLLECTING SAMPLE, LISTED AS **REPORT TO** AND LISTED AS **INVOICE TO** AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.



Shell Lake Waterworks

CLIENT: Mitch Brown
55 Ritchie Road
P O Box 520
Shell Lake, WI 54871 0520
715-468-7873

Surface Water Samples

Cust 31490
Order # 100140
Ship Date 05/25/2022
Type SW

Spee-Dee

Sample ID: Surface Water - 6 Sets

6 SETS

1 x 1L Plastic Non-Preserved

Chlorophyll

1 x 250mL Plastic H2SO4

Phosphorus

Sample ID: Surface Water - 3 Sets

3 SETS

1 x 150mL Sterile

E.coli by Enzymatic Substrate

8 hour hold time