

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: FIFE LAKE AREA UTILITY AUTHORITY
Name:
ClientProj: ANNUAL MONITORING WELLS
GTA ProjNo: 081522-1

Site Addr: 10701 VAN'S LANE
Sampled By: FIFE LAKE
RAY RAVARY/FLAUA
Date Rec: 8/15/2022
Time Rec: 11:45 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-13	8/15/2022	9:32 AM	WATER
2	MW-14	8/15/2022	9:51 AM	WATER
3	MW-5	8/15/2022	10:06 AM	WATER
4	MW-7	8/15/2022	10:15 AM	WATER
5	MW-15	8/15/2022	10:30 AM	WATER
6	MW-12	8/15/2022	10:50 AM	WATER

ELECTRONIC SIGNATURE REPORT. This is a final report for the following pages of data for the samples specified above. All analysis was performed by the methods stated and all quality control measures required were completed. All quality control information is available upon request.

Kirk Chase

Kirk L. Chase/Chemist
Grand Traverse Analytical
830 Robinwood Court
Traverse City, MI 49686
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COMPANY: FIFE LAKE AREA UTILITY AUTHORITY
PROJECT NO: ANNUAL MONITORING WELLS
LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-13

GTA PROJECT NO: 081522-1
GTA SAMPLE NO: 1
DATE RECEIVED: 8/15/2022
TIME RECEIVED: 11:45 AM
DATE SAMPLED: 8/15/2022
TIME SAMPLED: 9:32 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	320	10	mg/L (PPM)	TR	8/17/2022
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/17/2022
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/30/2022
CALCIUM DISS EPA 200.8	130	5.0	mg/L (PPM)	MR	8/18/2022
CHLORIDE EPA 300.0	16	10	mg/L (PPM)	KC	8/16/2022
CONDUCTIVITY SM2510-B	620	1.0	uS/cm@25C	TR	8/15/2022
IRON DISS EPA 200.8	<1.0	1.0	mg/L (PPM)	MR	8/18/2022
MAGNESIUM DISS EPA 200.8	26	5.0	mg/L (PPM)	MR	8/18/2022
MANGANESE DISS EPA 200.8	<0.010	0.010	mg/L (PPM)	MR	8/18/2022
NITRATE-N EPA 300.0	4.1	0.20	mg/L (PPM)	KC	8/16/2022
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/16/2022
POTASSIUM DISS EPA 200.8	<5.0	5.0	mg/L (PPM)	MR	8/18/2022
SODIUM DISS EPA 200.8	9.4	5.0	mg/L (PPM)	MR	8/18/2022
SULFATE EPA 300.0	4.1	1.0	mg/L (PPM)	KC	8/16/2022
TOTAL INORGANIC NITROGEN	4.1	0.42	mg/L (PPM)	KC	8/30/2022
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	KC	8/30/2022

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PROJECT NO: ANNUAL MONITORING WELLS
LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-14

GTA PROJECT NO: 081522-1
GTA SAMPLE NO: 2
DATE RECEIVED: 8/15/2022
TIME RECEIVED: 11:45 AM
DATE SAMPLED: 8/15/2022
TIME SAMPLED: 9:51 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	270	10	mg/L (PPM)	TR	8/17/2022
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/17/2022
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/30/2022
CALCIUM DISS EPA 200.8	98	5.0	mg/L (PPM)	MR	8/18/2022
CHLORIDE EPA 300.0	33	10	mg/L (PPM)	KC	8/16/2022
CONDUCTIVITY SM2510-B	590	1.0	uS/cm@25C	TR	8/15/2022
IRON DISS EPA 200.8	<1.0	1.0	mg/L (PPM)	MR	8/18/2022
MAGNESIUM DISS EPA 200.8	22	5.0	mg/L (PPM)	MR	8/18/2022
MANGANESE DISS EPA 200.8	<0.010	0.010	mg/L (PPM)	MR	8/18/2022
NITRATE-N EPA 300.0	2.5	0.20	mg/L (PPM)	KC	8/16/2022
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/16/2022
POTASSIUM DISS EPA 200.8	<5.0	5.0	mg/L (PPM)	MR	8/18/2022
SODIUM DISS EPA 200.8	20	5.0	mg/L (PPM)	MR	8/18/2022
SULFATE EPA 300.0	5.4	1.0	mg/L (PPM)	KC	8/16/2022
TOTAL INORGANIC NITROGEN	2.5	0.42	mg/L (PPM)	KC	8/30/2022
TOTAL PHOSPHORUS EPA 365.3	0.028	0.010	mg/L (PPM)	KC	8/30/2022

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LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-5

GTA PROJECT NO: 081522-1
GTA SAMPLE NO: 3
DATE RECEIVED: 8/15/2022
TIME RECEIVED: 11:45 AM
DATE SAMPLED: 8/15/2022
TIME SAMPLED: 10:06 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	180	10	mg/L (PPM)	TR	8/17/2022
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/17/2022
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/30/2022
CALCIUM DISS EPA 200.8	60	5.0	mg/L (PPM)	MR	8/18/2022
CHLORIDE EPA 300.0	91	10	mg/L (PPM)	KC	8/16/2022
CONDUCTIVITY SM2510-B	650	1.0	uS/cm@25C	TR	8/15/2022
IRON DISS EPA 200.8	<1.0	1.0	mg/L (PPM)	MR	8/18/2022
MAGNESIUM DISS EPA 200.8	14	5.0	mg/L (PPM)	MR	8/18/2022
MANGANESE DISS EPA 200.8	<0.010	0.010	mg/L (PPM)	MR	8/18/2022
NITRATE-N EPA 300.0	1.3	0.20	mg/L (PPM)	KC	8/16/2022
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/16/2022
POTASSIUM DISS EPA 200.8	5.4	5.0	mg/L (PPM)	MR	8/18/2022
SODIUM DISS EPA 200.8	85	5.0	mg/L (PPM)	MR	8/18/2022
SULFATE EPA 300.0	6.2	1.0	mg/L (PPM)	KC	8/16/2022
TOTAL INORGANIC NITROGEN	1.3	0.42	mg/L (PPM)	KC	8/30/2022
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	KC	8/30/2022

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LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-7

GTA PROJECT NO: 081522-1
GTA SAMPLE NO: 4
DATE RECEIVED: 8/15/2022
TIME RECEIVED: 11:45 AM
DATE SAMPLED: 8/15/2022
TIME SAMPLED: 10:15 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	110	10	mg/L (PPM)	TR	8/17/2022
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/17/2022
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/30/2022
CALCIUM DISS EPA 200.8	27	5.0	mg/L (PPM)	MR	8/18/2022
CHLORIDE EPA 300.0	35	10	mg/L (PPM)	KC	8/16/2022
CONDUCTIVITY SM2510-B	310	1.0	uS/cm@25C	TR	8/15/2022
IRON DISS EPA 200.8	<1.0	1.0	mg/L (PPM)	MR	8/18/2022
MAGNESIUM DISS EPA 200.8	20	5.0	mg/L (PPM)	MR	8/18/2022
MANGANESE DISS EPA 200.8	<0.010	0.010	mg/L (PPM)	MR	8/18/2022
NITRATE-N EPA 300.0	0.76	0.20	mg/L (PPM)	KC	8/16/2022
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/16/2022
POTASSIUM DISS EPA 200.8	6.7	5.0	mg/L (PPM)	MR	8/18/2022
SODIUM DISS EPA 200.8	35	5.0	mg/L (PPM)	MR	8/18/2022
SULFATE EPA 300.0	2.8	1.0	mg/L (PPM)	KC	8/16/2022
TOTAL INORGANIC NITROGEN	0.76	0.42	mg/L (PPM)	KC	8/30/2022
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	KC	8/30/2022

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LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-15

GTA PROJECT NO: 081522-1
GTA SAMPLE NO: 5
DATE RECEIVED: 8/15/2022
TIME RECEIVED: 11:45 AM
DATE SAMPLED: 8/15/2022
TIME SAMPLED: 10:30 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	210	10	mg/L (PPM)	TR	8/17/2022
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/17/2022
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/30/2022
CALCIUM DISS EPA 200.8	55	5.0	mg/L (PPM)	MR	8/18/2022
CHLORIDE EPA 300.0	36	10	mg/L (PPM)	KC	8/16/2022
CONDUCTIVITY SM2510-B	520	1.0	uS/cm@25C	TR	8/15/2022
IRON DISS EPA 200.8	<1.0	1.0	mg/L (PPM)	MR	8/18/2022
MAGNESIUM DISS EPA 200.8	16	5.0	mg/L (PPM)	MR	8/18/2022
MANGANESE DISS EPA 200.8	<0.010	0.010	mg/L (PPM)	MR	8/18/2022
NITRATE-N EPA 300.0	5.0	0.20	mg/L (PPM)	KC	8/16/2022
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/16/2022
POTASSIUM DISS EPA 200.8	<5.0	5.0	mg/L (PPM)	MR	8/18/2022
SODIUM DISS EPA 200.8	42	5.0	mg/L (PPM)	MR	8/18/2022
SULFATE EPA 300.0	13	1.0	mg/L (PPM)	KC	8/16/2022
TOTAL INORGANIC NITROGEN	5.0	0.42	mg/L (PPM)	KC	8/30/2022
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	KC	8/30/2022

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PROJECT NO: ANNUAL MONITORING WELLS
LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-12

GTA PROJECT NO: 081522-1
GTA SAMPLE NO: 6
DATE RECEIVED: 8/15/2022
TIME RECEIVED: 11:45 AM
DATE SAMPLED: 8/15/2022
TIME SAMPLED: 10:50 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	190	10	mg/L (PPM)	TR	8/17/2022
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/17/2022
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/30/2022
CALCIUM DISS EPA 200.8	62	5.0	mg/L (PPM)	MR	8/18/2022
CHLORIDE EPA 300.0	43	10	mg/L (PPM)	KC	8/16/2022
CONDUCTIVITY SM2510-B	530	1.0	uS/cm@25C	TR	8/15/2022
IRON DISS EPA 200.8	<1.0	1.0	mg/L (PPM)	MR	8/18/2022
MAGNESIUM DISS EPA 200.8	20	5.0	mg/L (PPM)	MR	8/18/2022
MANGANESE DISS EPA 200.8	<0.010	0.010	mg/L (PPM)	MR	8/18/2022
NITRATE-N EPA 300.0	5.6	0.20	mg/L (PPM)	KC	8/16/2022
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/16/2022
POTASSIUM DISS EPA 200.8	<5.0	5.0	mg/L (PPM)	MR	8/18/2022
SODIUM DISS EPA 200.8	56	5.0	mg/L (PPM)	MR	8/18/2022
SULFATE EPA 300.0	12	1.0	mg/L (PPM)	KC	8/16/2022
TOTAL INORGANIC NITROGEN	5.6	0.42	mg/L (PPM)	KC	8/30/2022
TOTAL PHOSPHORUS EPA 365.3	0.016	0.010	mg/L (PPM)	KC	8/30/2022

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CHAIN OF CUSTODY

PROJECT NUMBER Annual Monitoring Wells	SITE NAME/ADDRESS 10701 Vans Lane FLN:	COMPANY/NAME FLAUA
SAMPLED BY RAY RAVARY	COMPANY FLAUA	GTA PROJECT # 081522-1 Annual Quarterly MV

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
2	MW 13	8-15-22	932	W/W	ANNUAL MW
2	MW 14	↓	951	↓	
2	MW 5	↓	1006	↓	
2	MW 7	↓	1015	↓	
2	MW 15	↓	1030	↓	
2	MW 12	↓	1050	↓	

BILL TO: FLAUA
c/o H&R Block
Kingsley

Fee 3,100

REPORT TO: RRAVARY (2) provide.net
FLAUA (2) Att. net

RELEASED BY DATE/TIME
RAY RAVARY 8-15-22 1145

RECEIVED BY DATE/TIME
R. [Signature] 8/15/22 11:45am

REQUESTED TAT ☐ STANDARD ☐ 1 BUSINESS DAY ☐ 2 BUSINESS DAYS ☐ 3 BUSINESS DAYS