



**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: MILLER ENERGY COMPANY II, LLC      Site Addr: EPA-UIC ANNUAL SAMPLES  
Name:  
ClientProj: ANNUAL INJECTION FLUID ANALYSIS-  
GTA ProjNo: 111622-10      Sampled By: BRAD BABCOCK/MECII  
Date Rec: 11/16/2022  
Time Rec: 4:30 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MILTON DAVIS 1 SWD	11/10/2022	10:37 AM	WATER
2	HOYT N SMART 1 SWD	11/10/2022	11:00 AM	WATER
3	CARL H KELLER 2 SWD	11/10/2022	8:30 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  
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COMPANY:	MILLER ENERGY COMPANY II, LLC	GTA PROJECT NO:	111622-10
PROJECT NO:	ANNUAL INJECTION FLUID ANALYSIS-	GTA SAMPLE NO:	2
LOCATION:	EPA-UIC ANNUAL SAMPLES	DATE SAMPLED:	11/10/2022
		TIME SAMPLED:	11:00 AM
		DATE RECEIVED:	11/16/2022
	MI	TIME RECEIVED:	4:30 PM
SAMPLED BY:	BRAD BABCOCK/MECII	SAMPLE MATRIX:	WATER
SAMPLE ID:	HOYT N SMART 1 SWD		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
BARIUM DISS EPA 6020A	1.9	1.0	mg/L (PPM)	MR	12/1/2022	EPA 3005A
CALCIUM DISS EPA 6020A	9,300	100	mg/L (PPM)	MR	12/1/2022	EPA 3005A
IRON TOTAL EPA 6020A	100	10	mg/L (PPM)	MR	12/1/2022	EPA 3020A
MAGNESIUM DISS EPA 6020A	1,600	100	mg/L (PPM)	MR	12/1/2022	EPA 3005A
SODIUM DISS EPA 6020A	20,000	100	mg/L (PPM)	MR	12/1/2022	EPA 3005A

ND = NOT DETECTED, RESULT < LOD  
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 DISS = DISSOLVED



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PROJECT NO:	ANNUAL INJECTION FLUID ANALYSIS-	GTA SAMPLE NO:	2
LOCATION:	EPA-UIC ANNUAL SAMPLES	DATE RECEIVED:	11/16/2022
		TIME RECEIVED:	4:30 PM
	MI	DATE SAMPLED:	11/10/2022
SAMPLED BY:	BRAD BABCOCK/MECII	TIME SAMPLED:	11:00 AM
SAMPLE ID:	HOYT N SMART 1 SWD	SAMPLE MATRIX:	WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	22	10	mg/L (PPM)	TR	12/6/2022
ALKALINITY SM 4500CO2D (CARBONATE)	ND	10	mg/L (PPM)	TR	12/6/2022
CHLORIDE EPA 300.0	230,000	2,000	mg/L (PPM)	KC/TR	12/12/2022
pH EPA 150.1 - LAB	5.7	0.10	s.u.	TR	12/6/2022
RESISTIVITY SM 2510A	2.2	-	ohms x cm	AS	12/1/2022
SPECIFIC GRAVITY SM 2710F	1.130	-	-	TR	12/6/2022
SULFATE EPA 300.0	380	50	mg/L (PPM)	KC/TR	12/12/2022
SULFIDE SM 4500S D	56	1.0	mg/L (PPM)	KC	11/20/2022
TOTAL DISSOLVED SOLIDS EPA 160.1	240,000	5.0	mg/L (PPM)	TR	12/8/2022

ND = NOT DETECTED, RESULT < LOD  
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COMPANY:	MILLER ENERGY COMPANY II, LLC	GTA PROJECT NO:	111622-10
PROJECT NO:	ANNUAL INJECTION FLUID ANALYSIS-	GTA SAMPLE NO:	3
LOCATION:	EPA-UIC ANNUAL SAMPLES	DATE SAMPLED:	11/10/2022
		TIME SAMPLED:	8:30 AM
		DATE RECEIVED:	11/16/2022
	MI	TIME RECEIVED:	4:30 PM
SAMPLED BY:	BRAD BABCOCK/MECII	SAMPLE MATRIX:	WATER
SAMPLE ID:	CARL H KELLER 2 SWD		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
BARIUM DISS EPA 6020A	ND	1.0	mg/L (PPM)	MR	12/1/2022	EPA 3005A
CALCIUM DISS EPA 6020A	5,000	100	mg/L (PPM)	MR	12/1/2022	EPA 3005A
IRON TOTAL EPA 6020A	ND	10	mg/L (PPM)	MR	12/1/2022	EPA 3020A
MAGNESIUM DISS EPA 6020A	8,400	100	mg/L (PPM)	MR	12/1/2022	EPA 3005A
SODIUM DISS EPA 6020A	47,000	100	mg/L (PPM)	MR	12/1/2022	EPA 3005A

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COMPANY: MILLER ENERGY COMPANY II, LLC  
 PROJECT NO: ANNUAL INJECTION FLUID ANALYSIS-  
 LOCATION: EPA-UIC ANNUAL SAMPLES  
 MI  
 SAMPLED BY: BRAD BABCOCK/MECII  
 SAMPLE ID: CARL H KELLER 2 SWD

GTA PROJECT NO: 111622-10  
 GTA SAMPLE NO: 3  
 DATE RECEIVED: 11/16/2022  
 TIME RECEIVED: 4:30 PM  
 DATE SAMPLED: 11/10/2022  
 TIME SAMPLED: 8:30 AM  
 SAMPLE MATRIX: WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	22	10	mg/L (PPM)	TR	12/6/2022
ALKALINITY SM 4500CO2D (CARBONATE)	ND	10	mg/L (PPM)	TR	12/6/2022
CHLORIDE EPA 300.0	210,000	2,000	mg/L (PPM)	KC/TR	12/12/2022
pH EPA 150.1 - LAB	5.7	0.10	s.u.	TR	12/6/2022
RESISTIVITY SM 2510A	12	-	ohms x cm	AS	12/1/2022
SPECIFIC GRAVITY SM 2710F	1.113	-	-	TR	12/6/2022
SULFATE EPA 300.0	570	50	mg/L (PPM)	KC/TR	12/12/2022
SULFIDE SM 4500S D	ND	1.0	mg/L (PPM)	KC	11/20/2022
TOTAL DISSOLVED SOLIDS EPA 160.1	220,000	5.0	mg/L (PPM)	TR	12/8/2022

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