



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: BREITBURN OPERATING
Name:
ClientProj: 97-071
GTA ProjNo: 072319-13

Site Addr: KAL 1-21

Sampled By: ROB WINTERER/OMPC
Date Rec: 7/23/2019
Time Rec: 3:25 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-14	7/22/2019		WATER
2	SV-3	7/22/2019		WATER
3	SV-8	7/22/2019		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 L Chase

Kirk L. Chase/Chemist
Grand Traverse Analytical
830 Robinwood Court
Traverse City, MI 49686
Ph: 231-929-0905
Fx: 231-929-0894
SP: 231-590-0291
kirk@gtanalytical.com

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: BREITBURN OPERATING

PROJECT NO: 97-071
LOCATION: KAL 1-21SAMPLED BY: MI
ROB WINTERER/OMPC

SAMPLE ID: MW-14

GTA PROJECT NO: 072319-13

GTA SAMPLE NO: 1

DATE SAMPLED: 7/22/2019
TIME SAMPLED:DATE RECEIVED: 7/23/2019
TIME RECEIVED: 3:25 PM

SAMPLE MATRIX: WATER

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	ND	0.0020	mg/L (PPM)	MR	7/29/2019	EPA 3005A
IRON TOTAL EPA 6020A	0.037	0.010	mg/L (PPM)	MR	7/29/2019	EPA 3005A
MANGANESE TOTAL EPA 6020A	1.2	0.0010	mg/L (PPM)	MR	7/29/2019	EPA 3005A

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION

DISS = DISSOLVED

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: BREITBURN OPERATING

PROJECT NO: 97-071
LOCATION: KAL 1-21SAMPLED BY: MI
ROB WINTERER/OMPC

SAMPLE ID: SV-3

GTA PROJECT NO: 072319-13

GTA SAMPLE NO: 2

DATE SAMPLED: 7/22/2019
TIME SAMPLED:DATE RECEIVED: 7/23/2019
TIME RECEIVED: 3:25 PM

SAMPLE MATRIX: WATER

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	ND	0.0020	mg/L (PPM)	MR	7/29/2019	EPA 3005A
IRON TOTAL EPA 6020A	0.096	0.010	mg/L (PPM)	MR	7/29/2019	EPA 3005A
MANGANESE TOTAL EPA 6020A	0.20	0.0010	mg/L (PPM)	MR	7/29/2019	EPA 3005A

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION

DISS = DISSOLVED



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: BREITBURN OPERATING

PROJECT NO: 97-071
LOCATION: KAL 1-21

SAMPLED BY: MI
ROB WINTERER/OMPC

SAMPLE ID: SV-8

GTA PROJECT NO: 072319-13

GTA SAMPLE NO: 3

DATE SAMPLED: 7/22/2019
TIME SAMPLED:

DATE RECEIVED: 7/23/2019
TIME RECEIVED: 3:25 PM

SAMPLE MATRIX: WATER

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	ND	0.0020	mg/L (PPM)	MR	7/29/2019	EPA 3005A
IRON TOTAL EPA 6020A	0.075	0.010	mg/L (PPM)	MR	7/29/2019	EPA 3005A
MANGANESE TOTAL EPA 6020A	0.0057	0.0010	mg/L (PPM)	MR	7/29/2019	EPA 3005A

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION

DISS = DISSOLVED

INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

CHAIN OF CUSTODY

PROJECT NUMBER 97-071	SITE NAME/ADDRESS Karl 1-21	COMPANY/NAME Breitburn
SAMPLED BY Rob Winterer	COMPANY ompc	GTA PROJECT # 072319-13

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
	MW-14	7/22/19		water	Total metals, including iron, manganese, arsenic
	SV-3	7/23/19		↓	
	SV-8	7/23/19		↓	

BILL TO:

Breitburn

REPORT TO:

Breitburn / ompc

RELEASED BY Robert Winterer	DATE/TIME 7/23/19 15:25	RECEIVED BY [Signature]	DATE/TIME 7/23/19 1525

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