



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: 20-032
GTA ProjNo: 040820-1

Site Addr: KAL 1-27

Sampled By: MARK COLLISON/OMPC
Date Rec: 4/8/2020
Time Rec: 10:59 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-1 @ 23'	4/7/2020		SOIL
2	MW-1 @ 28'	4/7/2020		SOIL
3	MW-1 @ 34'	4/7/2020		SOIL
4	MW-1 @ 38'	4/7/2020		SOIL
5	MW-1 @ 43'	4/7/2020		SOIL
6	MW-2 @ 23'	4/7/2020		SOIL
7	MW-2 @ 29'	4/7/2020		SOIL
8	MW-2 @ 35'	4/7/2020		SOIL
9	MW-2 @ 39'	4/7/2020		SOIL
10	MW-2 @ 45'	4/7/2020		SOIL
11	MW-1	4/7/2020		WATER
12	MW-2	4/7/2020		WATER
13	MW-3	4/7/2020		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
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Traverse City, MI 49686
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 1
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-1 @ 23'

SAMPLED BY: MARK COLLISON/OMPC

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION



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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 2
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-1 @ 28'

SAMPLED BY: MARK COLLISON/OMPC

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-1 @ 34'

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 3
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC
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EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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 LOD = LIMIT OF DETECTION

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 4

DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-1 @ 38'

SAMPLED BY: MARK COLLISON/OMPC

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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LOD = LIMIT OF DETECTION



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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-1 @ 43'

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 5
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC
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Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 6
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-2 @ 23'

SAMPLED BY: MARK COLLISON/OMPC

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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 LOD = LIMIT OF DETECTION

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: MW-2 @ 29'

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 7
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: MW-2 @ 35'

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 8
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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LOD = LIMIT OF DETECTION

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: MW-2 @ 39'

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 9
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 10
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-2 @ 45'

SAMPLED BY: MARK COLLISON/OMPC

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	4/7/2020	4/12/2020	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-1

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 11
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		4/9/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-2

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 12
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		4/9/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-3

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 13
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLED BY: MARK COLLISON/OMPC

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		4/9/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 1

DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

MI
SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1 @ 23' CHLORIDE EPA 300.0	3,800	100	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C



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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 2
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1 @ 28' CHLORIDE EPA 300.0	ND	49	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 3
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1 @ 34' CHLORIDE EPA 300.0	ND	52	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 4

DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1 @ 38' CHLORIDE EPA 300.0	850	49	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLED BY: MARK COLLISON/OMPC

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 5
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1 @ 43' CHLORIDE EPA 300.0	660	58	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLED BY: MARK COLLISON/OMPC

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 6
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-2 @ 23' CHLORIDE EPA 300.0	1,600	52	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLED BY: MARK COLLISON/OMPC

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 7
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-2 @ 29' CHLORIDE EPA 300.0	1,300	52	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 8

DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-2 @ 35' CHLORIDE EPA 300.0	ND	51	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLED BY: MARK COLLISON/OMPC

GTA PROJECT NO: 040820-1
GTA SAMPLE NO: 9
DATE SAMPLED: 4/7/2020
TIME SAMPLED:
DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-2 @ 39' CHLORIDE EPA 300.0	5,100	100	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 10
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-2 @ 45' CHLORIDE EPA 300.0	1,000	60	mg/Kg (PPM)	LV	4/10/2020	SOIL

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLED BY: MARK COLLISON/OMPC

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 11
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
SAMPLE ID: MW-1	CHLORIDE EPA 300.0	5,000	500	mg/L (PPM)	LV	4/10/2020	WATER

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 12
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
SAMPLE ID: MW-2	CHLORIDE EPA 300.0	1,500	100	mg/L (PPM)	LV	4/10/2020	WATER

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 040820-1
 GTA SAMPLE NO: 13
 DATE SAMPLED: 4/7/2020
 TIME SAMPLED:
 DATE RECEIVED: 4/8/2020
 TIME RECEIVED: 10:59 AM

MI
 SAMPLED BY: MARK COLLISON/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
SAMPLE ID: MW-3	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	4/10/2020	WATER

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C



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:
PROJECT NO: 20-032

LOCATION: KAL 1-27

MI

GTA PROJECT NO: 040820-1
SAMPLED BY: MARK COLLISON/OMPC

DATE SAMPLED: 4/7/2020
TIME SAMPLED:

SAMPLE MATRIX: SOIL

DATE RECEIVED: 4/8/2020
TIME RECEIVED: 10:59 AM

MOISTURE

<u>No:</u> <u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Complete</u>
SAMPLE ID: MW-1 @ 23' % MOISTURE EPA 3550C	5.3	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-1 @ 28' % MOISTURE EPA 3550C	3.8	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-1 @ 34' % MOISTURE EPA 3550C	4.9	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-1 @ 38' % MOISTURE EPA 3550C	3.9	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-1 @ 43' % MOISTURE EPA 3550C	14	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-2 @ 23' % MOISTURE EPA 3550C	3.9	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-2 @ 29' % MOISTURE EPA 3550C	4.0	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-2 @ 35' % MOISTURE EPA 3550C	4.4	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-2 @ 39' % MOISTURE EPA 3550C	4.0	0.050	% OF SAMPLE	AS	4/8/2020
SAMPLE ID: MW-2 @ 45' % MOISTURE EPA 3550C	17	0.050	% OF SAMPLE	AS	4/8/2020

CHAIN OF CUSTODY

PROJECT NUMBER <i>#20-032</i>	SITE NAME/ADDRESS <i>KAL 1-27</i>	COMPANY/NAME <i>Bill To: BREITBURN</i>
SAMPLED BY <i>Alex Coulson</i>	COMPANY <i>Orwell Murray, P.C.</i>	GTA PROJECT # <i>940820-1</i>

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	MW-1@ 23'	4-7-20		SOIL	<i>HIPS + FOLR, Colozides</i>
2	MW-1@ 28'	4-7-20			
3	MW-1@ 34'	4-7-20			
4	MW-1@ 38'	4-7-20			
5	MW-1@ 43'	4-7-20			
6	MW-2@ 23'	4-7-20			
7	MW-2@ 29'	4-7-20			
8	MW-2@ 35'	4-7-20			
9	MW-2@ 39'	4-7-20			
10	MW-2@ 45'	4-7-20			
11	MW-1	4-7-20		H2O	
12	MW-2	4-7-20			
13	MW-3	4-7-20			

BILL TO: <i>BREITBURN</i>	REPORT TO: <i>Melzar Carter</i>
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RELEASED BY <i>Alex Coulson</i>	DATE/TIME <i>4/8/20</i>	RECEIVED BY <i>KW</i>	DATE/TIME <i>4/8/20 10:59 am</i>
		<i>see LOC</i>	

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