

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: MACKINAC ENVIRONMENTAL
Name:
ClientProj: M21-3467
GTA ProjNo: 121421-3

Site Addr: KRIST OIL M.P.

Sampled By: PJK/MET

Date Rec: 12/14/2021

Time Rec: 12:30 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	SB-3	12/10/2021		WATER
2	SB-5	12/10/2021		WATER
3	SB-6	12/10/2021		WATER
4	SB-7	12/10/2021		WATER
5	SB-8	12/10/2021		WATER
6	SB-9	12/10/2021		WATER
7	SB-10	12/10/2021		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
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: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 121421-3

PROJECT NO: M21-3467

GTA SAMPLE NO: 1

LOCATION: KRIST OIL M.P.

DATE SAMPLED: 12/10/2021

TIME SAMPLED:

DATE RECEIVED: 12/14/2021

TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-3

EPA 8260B VOLATILE ORGANICS

Units= ug/L (PPB)

Analyst= MR

Date Extracted=

Date Completed= 12/19/2021 Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBEZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 2DATE SAMPLED: 12/10/2021
TIME SAMPLED:DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-5

EPA 8260B VOLATILE ORGANICS

Units= ug/L (PPB)

Analyst= MR

Date Extracted=

Date Completed= 12/19/2021 Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBENZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 121421-3

PROJECT NO: M21-3467

GTA SAMPLE NO: 3

LOCATION: KRIST OIL M.P.

DATE SAMPLED: 12/10/2021

TIME SAMPLED:

DATE RECEIVED: 12/14/2021

TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-6

EPA 8260B VOLATILE ORGANICS

Units= ug/L (PPB)

Analyst= MR

Date Extracted=

Date Completed= 12/19/2021 Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBENZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

GTA PROJECT NO: 121421-3

GTA SAMPLE NO: 4

DATE SAMPLED: 12/10/2021

TIME SAMPLED:

DATE RECEIVED: 12/14/2021

TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-7

EPA 8260B VOLATILE ORGANICSUnits= ug/L (PPB)Analyst= MRDate Extracted=Date Completed= 12/19/2021 Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBENZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 121421-3

PROJECT NO: M21-3467

GTA SAMPLE NO: 5

LOCATION: KRIST OIL M.P.

DATE SAMPLED: 12/10/2021

TIME SAMPLED:

DATE RECEIVED: 12/14/2021

TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-8

EPA 8260B VOLATILE ORGANICS

Units= ug/L (PPB)

Analyst= MR

Date Extracted=

Date Completed= 12/19/2021

Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBENZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 121421-3

PROJECT NO: M21-3467

GTA SAMPLE NO: 6

LOCATION: KRIST OIL M.P.

DATE SAMPLED: 12/10/2021

TIME SAMPLED:

DATE RECEIVED: 12/14/2021

TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-9

EPA 8260B VOLATILE ORGANICS

Units= ug/L (PPB)

Analyst= MR

Date Extracted=

Date Completed= 12/19/2021 Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBENZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 121421-3

PROJECT NO: M21-3467

GTA SAMPLE NO: 7

LOCATION: KRIST OIL M.P.

DATE SAMPLED: 12/10/2021

TIME SAMPLED:

DATE RECEIVED: 12/14/2021

TIME RECEIVED: 12:30 PM

SAMPLED BY: PJK/MET

SAMPLE MATRIX: WATER

SAMPLE ID: SB-10

EPA 8260B VOLATILE ORGANICS

Units= ug/L (PPB)

Analyst= MR

Date Extracted=

Date Completed= 12/20/2021 Prep Method= EPA 5030B

Analyte	Concentration	LOD
ACETONE	ND	25
ALLYL CHLORIDE	ND	10
BENZENE	ND	1.0
BROMOBENZENE	ND	1.0
BROMOCHLOROMETHANE	ND	1.0
BROMODICHLOROMETHANE	ND	1.0
BROMOFORM	ND	1.0
BROMOMETHANE	ND	1.0
n-BUTYLBENZENE	ND	1.0
s-BUTYLBENZENE	ND	1.0
t-BUTYLBENZENE	ND	1.0
CARBON DISULFIDE	ND	5.0
CARBON TETRACHLORIDE	ND	1.0
CHLOROBENZENE	ND	1.0
1-CHLOROBUTANE	ND	1.0
CHLOROFORM	ND	1.0
CHLOROETHANE	ND	1.0
CHLOROMETHANE	ND	1.0
2-CHLOROTOLUENE	ND	1.0
4-CHLOROTOLUENE	ND	1.0
DIBROMOCHLOROMETHANE	ND	1.0
DIBROMOMETHANE	ND	1.0
1,2-DIBROMOETHANE	ND	1.0
1,2-DICHLOROBENZENE	ND	1.0
1,3-DICHLOROBENZENE	ND	1.0
1,4-DICHLOROBENZENE	ND	1.0
t-1,4-DICHLORO-2-BUTENE	ND	10
DICHLORODIFLUOROMETHANE	ND	1.0
1,1-DICHLOROETHANE	ND	1.0
1,2-DICHLOROETHANE	ND	1.0
1,1-DICHLOROETHENE	ND	1.0
cis-1,2-DICHLOROETHENE	ND	1.0
trans-1,2-DICHLOROETHENE	ND	1.0
1,2-DICHLOROPROPANE	ND	1.0
1,3-DICHLOROPROPANE	ND	1.0
2,2-DICHLOROPROPANE	ND	1.0
1,1-DICHLOROPROPENE	ND	1.0

Analyte	Concentration	LOD
cis-1,3-DICHLOROPROPENE	ND	1.0
trans-1,3-DICHLOROPROPENE	ND	1.0
DIETHYL ETHER	ND	10
ETHYLBENZENE	ND	1.0
ETHYL METHACRYLATE	ND	10
HEXACHLOROBUTADIENE	ND	1.0
HEXACHLOROETHANE	ND	10
2-HEXANONE	ND	10
IDOMETHANE	ND	10
ISOPROPYLBENZENE	ND	1.0
ISOPROPYLTOLUENE	ND	1.0
METHYL ACRYLATE	ND	10
METHYL ETHYL KETONE	ND	10
METHYL-t-BUTYL ETHER	ND	5.0
METHYLENE CHLORIDE	ND	1.0
METHYL METHACRYLATE	ND	10
MIBK	ND	10
2-METHYLNAPHTHALENE	ND	5.0
NAPHTHALENE	ND	5.0
PENTACHLOROETHANE	ND	10
n-PROPYLBENZENE	ND	1.0
STYRENE	ND	1.0
1,1,1,2-TETRACHLOROETHANE	ND	1.0
1,1,2,2-TETRACHLOROETHANE	ND	1.0
TETRACHLOROETHENE	ND	1.0
TOLUENE	ND	1.0
1,2,3-TRICHLOROBENZENE	ND	1.0
1,2,4-TRICHLOROBENZENE	ND	1.0
1,1,1-TRICHLOROETHANE	ND	1.0
1,1,2-TRICHLOROETHANE	ND	1.0
TRICHLOROETHENE	ND	1.0
TRICHLORFLUOROMETHANE	ND	1.0
1,2,3-TRICHLOROPROPANE	ND	1.0
1,2,4-TRIMETHYLBENZENE	ND	1.0
1,3,5-TRIMETHYLBENZENE	ND	1.0
VINYL CHLORIDE	ND	1.0
XYLENE (TOTAL)	ND	3.0

ND = NOT DETECTED, RESULT IS <LOD.

LOD = LIMIT OF DETECTION.

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-3

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 1

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-5

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 2

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-6

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 3

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-7

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 4

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-8

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 5

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-9

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 6

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M21-3467
LOCATION: KRIST OIL M.P.

SAMPLED BY: MI
PJK/MET

SAMPLE MATRIX: WATER
SAMPLE ID: SB-10

GTA PROJECT NO: 121421-3
GTA SAMPLE NO: 7

DATE SAMPLED: 12/10/2021
TIME SAMPLED:

DATE RECEIVED: 12/14/2021
TIME RECEIVED: 12:30 PM

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/15/2021	12/16/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

CHAIN OF CUSTODY

PROJECT NUMBER MAI-3467	SITE NAME/ADDRESS Krist Oil M.P.	COMPANY/NAME MET
SAMPLED BY PJK	COMPANY MET	GTA PROJECT # 121421-3

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	SB-3	12-10-21		H ₂ O	VOCs (Full), PNAs
2	SB-5	↓		↓	↓
3	SB-6				
4	SB-7				
5	SB-8				
6	SB-9				
7	SB-10	↓		↓	↓

BILL TO: met@sault.com	TempRec: ☐ Y ☐ N	On Ice? ☐ ☐	REPORT TO: Paul Kreski
RELEASED BY Paul Kreski	DATE/TIME 12-13-21	RECEIVED BY [Signature]	DATE/TIME 12/14/21 1230
REQUESTED TAT ☒ STANDARD ☐ 1 BUSINESS DAY ☐ 2 BUSINESS DAYS ☐ 3 BUSINESS DAYS			