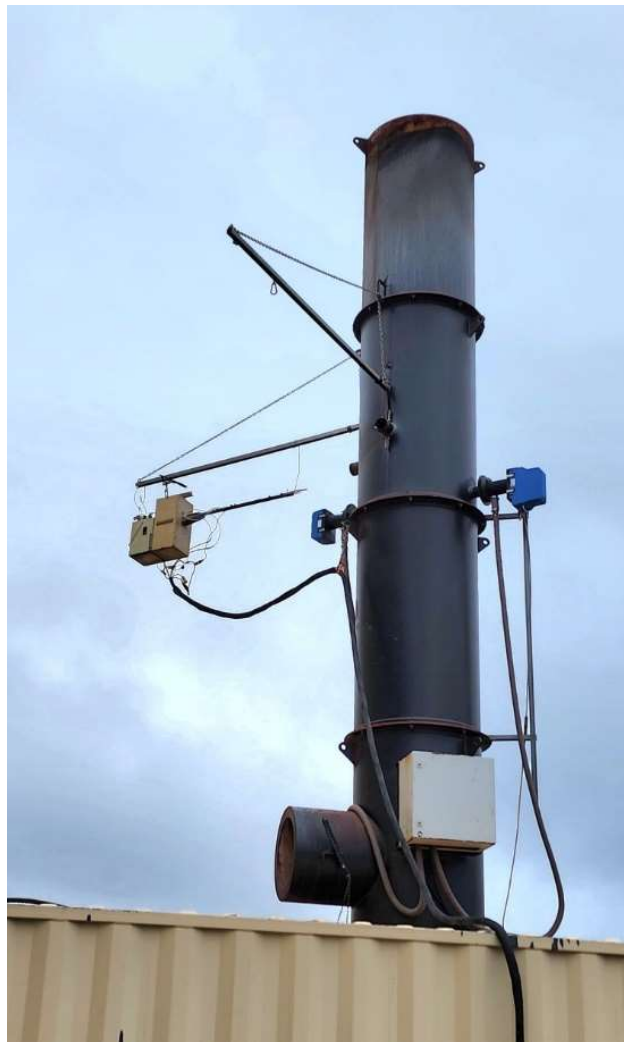


BAFFINLAND IRON MINES CORPORATION

2024 SOURCE TESTING REPORT

ECO WASTE INCINERATORS, MILNE PORT AND MARY RIVER, NUNAVUT

Revised 29 April 2025





2024 SOURCE TESTING REPORT REV. 1

ECO WASTE INCINERATORS,
MILNE PORT AND MARY
RIVER, NUNAVUT

BAFFINLAND IRON MINES CORPORATION

PROJECT NO.: CA0037822.0833
REVISED 29 APRIL 2025

WSP Canada Inc.
160 Traders Blvd., E. Unit 3
Mississauga, Ontario, L4Z 3K7

WSP.com

WSP Canada Inc. (WSP) prepared this report solely for the use of the intended recipient, Baffinland Iron Mines Corporation, in accordance with the professional services agreement. The intended recipient is solely responsible for the disclosure of any information contained in this report. The content and opinions contained in the present report are based on the observations and/or information available to WSP Canada Inc. at the time of preparation. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. WSP Canada Inc. does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report. This limitations statement is considered an integral part of this report.

The original of this digital file will be conserved by WSP Canada Inc. for a period of not less than 10 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP Canada Inc., its integrity cannot be assured. As such, WSP Canada Inc. does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.

EXECUTIVE SUMMARY

Baffinland Iron Mines Corporation (Baffinland) retained WSP Canada Inc. (WSP) to conduct dioxin/furan (D/F) and Mercury emissions testing on two (2) Eco Waste Incinerators. The incinerators are located at the Baffinland Milne Port and Mary River sites on Baffin Island, Nunavut. The incinerators are used to burn various wastes including personal domestic waste, kitchen waste, dewatered sewage sludge, paper, packaging, lumber and textiles, documents, and clinical and medical waste.

Testing was performed as part of Baffinland's permit obligations to the Nunavut Government. The program was designed to measure incinerator emissions of Dioxins/Furans and Mercury, with in-stack concentrations compared against the applicable Canadian Council of Minister of the Environment (CCME) Canada-Wide Standards (CWS).

Testing was conducted on the following dates:

- August 18th to 20st, 2024 on the Milne Port Eco Waste incinerator; and
- August 22nd to 24th, 2024 on the Mary River Eco Waste incinerator.

Testing on the Eco Waste incinerators was carried out during normal burns with an estimated 500 to 1000 kg of unsorted camp waste per burn. The waste quantities were estimated based on the number of bags and pallets placed in the incinerators for each daily test.

Each batch incineration was set for 10 to 12 hours with a subsequent approximate 12 hour cool down period. Each mercury test commenced at the beginning of each burn. Each dioxins/furans test followed the mercury test at approximately 2.5 hours into the burn cycle.

The testing results are summarized in Tables ES.1 to ES.5. Sampling, analysis and reporting procedures were followed as per the Environment Canada and U.S. Environmental Protection Agency (U.S. EPA) methods.

The mercury test results for both units Eco Waste units demonstrated concentrations below the Environment Canada CCME CWS of 20 µg/DRm³ corrected to 11% O₂ for municipal waste incineration.

The dioxins/furans test results for both units Eco Waste units demonstrated D/F toxic equivalency (TEQ) concentrations below the Environment Canada CCME CWS of 80 pg/DRm³ corrected to 11% O₂ for municipal waste incineration.

All tests were measured to be below the applicable CCME criteria.

This report is subject to the Appended Statement of Limitations.

Table ES.1: Average Stack Gas Characteristics

Source	Flow (DRm ³ /s)*	Oxygen (% dry)	Carbon Dioxide (% dry)	Moisture (%)	Stack Temp. (°C)
Eco Waste – Milne Port	1.36	15.2	5.13	6.03	643
Eco Waste – Mary River	0.98	14.3	5.67	6.66	706

Notes:

* DRm³ = Dry reference cubic metres (25°C, 101.3 kPa) average of Dioxins and Mercury Tests

Table ES.2: Summary of In-Stack Dioxin/Furan Concentrations – Milne Port Eco Waste Incinerator

Test	In-Stack Concentration pg/DRm ³ *	Criteria	% of Criteria
1	6.86		
2	17.1		
3	6.44		
Average	10.1	80	12.7%

Notes:

*pg/DR m³ = picograms per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% O₂

Table ES.3: Summary of In-Stack Dioxin/Furan Concentrations – Mary River Eco Waste Incinerator

Test	In-Stack Concentration pg/DRm ³ *	Criteria	% of Criteria
1	16.1		
2	64.8		
3	25.7		
Average	35.5	80	44.4%

Notes:

* pg/DRm³ = picograms per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% O₂

Table ES.4: Summary of In-Stack Mercury Concentrations – Milne Port Eco Waste Incinerator

Test	In-Stack Concentration µg/DRm ³ *	Criteria	% of Criteria
1	0.236		
2	0.354		
3	0.309		
Average	0.300	20	1.50%

Notes:

* µg/DRm³ = micrograms per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% O₂

Table ES.5: Summary of In-Stack Mercury Concentrations – Mary River Eco Waste Incinerator

Test	In-Stack Concentration µg/DRm ³ *	Criteria	% of Criteria
1	0.655		
2	0.860		
3	9.53		
Average	3.68	20	18.4%

Notes:

* µg/DRm³ = micrograms per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% O₂



TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	Summary of Test Program	2
1.2	Test Program Organization	2
2	SOURCE DESCRIPTION.....	3
3	TEST PROGRAM.....	4
3.1	Objectives	4
3.2	Test Matrix	4
3.3	Operations and Process	4
3.4	Sampling Locations	5
4	SAMPLING AND ANALYTICAL PROCEDURES.....	7
4.1	Mercury	7
4.2	Dioxins/Furans.....	7
4.3	Combustion Gases.....	9
5	RESULTS.....	10
5.1	Schedule of the Test Program	10
5.2	Test Results.....	10
6	DISCUSSION.....	14
6.1	Results.....	14
6.2	Observations and Comments	14
6.3	Recommendations.....	15
7	CLOSURE.....	16
	LIMITATIONS	1

TABLES

Table 1: Test Parameters.....	2
Table 2: Test Matrix	4
Table 3: Test Schedule	10
Table 4A: Summary of Stack Gas Characteristics (D/F Tests) – Milne Port Eco Waste Incinerator	10
Table 4B: Summary of Stack Gas Characteristics (Mercury Tests) – Milne Port Eco Waste Incinerator	10
Table 5: Summary of In-Stack Dioxin/Furan Concentrations – Milne Port Eco Waste Incinerator	11
Table 6: Detailed Results: Dioxins/Furans –Milne Port Eco Waste Incinerator	11
Table 7: Summary of In-Stack Mercury Concentrations – Milne Port Eco Waste Incinerator	11
Table 8A: Summary of Stack Gas Characteristics (D/F Tests) – Mary River Eco Waste Incinerator.....	12
Table 8B: Summary of Stack Gas Characteristics (Mercury Tests) – Mary River Eco Waste Incinerator.....	12
Table 9: Summary of In-Stack Dioxin/Furan Concentrations – Mary River Eco Waste Incinerator	12
Table 10: Summary of In-Stack Mercury Concentrations – Mary River Eco Waste Incinerator.....	12
Table 11: Detailed Results: Dioxins/Furans – Mary River Eco Waste Incinerator	12

FIGURES

Figure 1: Eco Waste Incinerator Stack, Milne Port	6
Figure 2: Eco Waste Incinerator Stack, Mary River.....	6

APPENDICES

Appendix A Test Data and Calculations
Appendix B Laboratory Certificates of Analysis
Appendix C Raw Sampling Data
Appendix D Calibration Sheets
Appendix E Process Data
Appendix F Statement of Limitations

1 INTRODUCTION

Baffinland Iron Mines Corporation (Baffinland) retained WSP Canada Inc. (WSP) to conduct performance source testing on two (2) Eco Waste Incinerators. One (1) Eco Waste incinerator is located at the Milne Port site. One (1) Eco Waste Incinerator is located at the Mary River site on Baffin Island, Nunavut.

The Eco Waste units were previously tested for dioxins and furans (D/F) in 2019, 2020, 2022 and 2023. Both units were tested for mercury in 2019 and 2023.

Testing was conducted in August 2024 as follows:

- August 18th to 20st, 2024 on the Milne Port Eco Waste incinerator; and
- August 22nd to 24th, 2024 on the Mary River Eco Waste incinerator.

The incinerator exhausts were tested for the following parameters:

- Exhaust gas flow characteristics (after the barometric damper);
- Mercury;
- Dioxins and furans; and
- Combustion gases (O₂, CO₂).

The incinerators are used to burn various wastes including personal domestic waste, kitchen waste, dewatered sewage sludge, paper, packaging, lumber and textiles, documents, and clinical and medical waste.

The program was designed to measure the incinerators' emissions once stable operations were obtained. Stable operation was defined as the incinerator achieving primary and secondary temperatures achieved and maintained within the defined temperature zones.

Measured Dioxin/Furan in-stack concentrations were compared against the Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standard (CWS) of 80 pg per dry reference (101.3 kPa, 25°C) cubic metre (DRm³) corrected to 11% oxygen.

Measured mercury in-stack concentrations were compared against the Canadian Council of Ministers of the Environment Canada-Wide Standard (CWS) of 20 µg/DRm³ corrected to 11% oxygen.

Sampling, analysis and reporting procedures were followed as per U.S. EPA Method 101A (Mercury) and Environment Canada Method EPS 1/RM/3 (D/F).

1.1 SUMMARY OF TEST PROGRAM

The test contaminants included in this program and the corresponding test methods are listed below in Table 1.

Table 1: Test Parameters

Test Parameter	Sampling Method	Analytical Method
Flow Rate	EPS 1-AP-74-1 Methods A-F	Pitot Tube
Mercury	EPA Method 101A	CVAAS
Dioxins / Furans	Env. Canada EPS 1/RM/2	EPS 1/RM/3 HRMS
Oxygen/Carbon Dioxide (O ₂ /CO ₂)	U.S. EPA Method 3A (modified)	Electrochemical / Non-dispersive Infrared
Carbon Monoxide	U.S. EPA Method 10 (modified)	Non-dispersive Infrared

Notes:

CVAAS - Cold Vapor Atomic Absorption Spectroscopy

EPA 40CFR60 – United States Environmental Protection Agency

EPS – Environment Canada's Environmental Protection Series

HRMS – High-resolution Mass Spectrometry

RM – Reference Method

1.2 TEST PROGRAM ORGANIZATION

Company Name: Baffinland Iron Mines Corporation

Company Address / Plant Location: Mary River Mine Site
Baffin Island, Nunavut

Contact Name: Joe Armstrong

Email: joe.armstrong@baffinland.com

Position: Manager, Site Services

Telephone No.: 647-253-0596 x6924

2) Sampling Company: WSP Canada Inc.

Project Coordinator: Steve McClure

Telephone No.: (416) 571-7076

Email: steve.mcclure@wsp.com

Sampling Team: Steve McClure, Andrey Zapolskiy

3) Analytical Laboratory: ALS Global

Project Coordinator: Ron McLeod

Email: ron.mcleod@alsglobal.com

Telephone No.: (905) 331-3111

2 SOURCE DESCRIPTION

Baffinland operates two (2) dual-chambered diesel fired Eco Waste incinerators, one (1) at each of the Milne Port and Mary River sites. Each of the incinerators consists of a primary and secondary chamber. Waste is manually loaded into the primary chamber whose function is to perform pyrolysis and gasification, and combustion of fixed carbon. The secondary chamber completes the combustion and minimizes black soot released from the exhaust stack.

Eco Waste Incinerators (Milne Port and Mary River)

The two (2) Eco Waste units, one (1) each at the Milne Port and Mary River sites, are near identical in design. Each has a capacity of approximately 2000 kg of waste per day.

Each batch is typically constructed with a set quantity of materials, including wooden pallets on the bottom, cardboard, and specific quantities of wet and dry camp waste. At the completion of each cycle, the incinerator is allowed to cool to below approximately 45°C and is then raked out to leave the incinerator empty prior to reloading.

The Eco Waste burn cycles include approximately 10 to 12 hours of combustion and 12 hours of cool down.

3 TEST PROGRAM

3.1 OBJECTIVES

The purpose of the test program was to establish whether the performance of the installed equipment meet the CCME's CWSs.

Test objectives include the following:

- Measurement of the exhaust gas characteristics and emission rates of the contaminants;
- Comparing in-stack concentrations to the CWS for D/F; and
- Comparing in-stack concentrations to the CWS for mercury.

3.2 TEST MATRIX

The test matrix for this program is provided below in Table 2.

Table 2: Test Matrix

No. of Runs / Incinerator	Sample/ Pollutant	Method Number	Sample Run (min)	Analytical Method	Analytical Laboratory
3	Dioxins / Furans	EPS 1/RM/2	240	GC/HRMS GC/MS	ALS Global
3	Mercury	EPA 101A	120	CVAAS	ALS Global
3	O ₂	EPA Method 3A (modified)	Throughout	Electrochemical	WSP Analyzer
3	CO ₂	EPA Method 3A (modified)	Throughout	Non-dispersive Infrared	WSP Analyzer

Notes:

CVAAS - Cold Vapor Atomic Absorption Spectroscopy

EPA 40CFR60 – United States Environmental Protection Agency

EPS – Environment Canada's Environmental Protection Series

HRMS – High-resolution Mass Spectrometry

RM – Reference Method

3.3 OPERATIONS AND PROCESS

Mercury tests commenced once stable operation of the incinerator secondary chamber (1000C) was obtained and approximately 20 minutes after ignition of the burners in the primary chamber. Dioxin/Furan tests were conducted following the Mercury tests approximately 2.5 hours later. At that time, primary combustion is considered stable.

Baffinland staff loaded and operated the incinerators. Waste load counts were supplied verbally by Baffinland personnel to WSP personnel. Process Data is summarized in the Appendix.

3.4 SAMPLING LOCATIONS

Eco Waste Incinerators (Milne Port and Mary River)

Exhaust gases emitted from the Eco Waste incinerators are discharged through stacks having exit diameters of 0.80 m (31.5 in) each. Figures 1 and 2 show the two (2) incinerator stack sampling locations.

It is noted that approximately 4 diameters ahead of each of the sample locations, is located a dilution damper. These dampers are in a fixed position that is manually set and allows air infiltration into the stacks in order to induce flow in the stack.

Similarly, on both units, opacity meters are located immediately beneath one of the sampling traverses. These are visible in Figures 1 and 2 as the blue devices on the sides of the stacks. During operation, the opacity meters have air blowing into the stack to maintain clean windows for the opacity measurements.

The isokinetic sampling locations were located as follows:

Milne Port:

- ID: 0.80 m;
- Distance to upstream disturbance: approximately 4 diameters; and
- Distance to downstream disturbance: >2 diameters

Mary River:

- ID: 0.80 m;
- Distance to upstream disturbance: approximately 4 diameters; and
- Distance to downstream disturbance: >2 diameters



Figure 1: Eco Waste Incinerator Stack, Milne Port



Figure 2: Eco Waste Incinerator Stack, Mary River

4 SAMPLING AND ANALYTICAL PROCEDURES

4.1 MERCURY

Sampling for mercury was conducted using a single isokinetic sampling train in accordance with US EPA Method 101A. Performance of the method involved the use of a sampling train consisting of a quartz liner, no filter, and impingers containing 10% H₂SO₄/4% KMnO₄ solution.

All glassware, filters and resin used for this program were cleaned as per the Reference Method prior to equipment mobilization to site. A set of blank samples was collected from a fully assembled sampling train at the beginning of the sampling program. The blank samples were analyzed and are reported in the appendices.

The sampling time per test, excluding port changes, leak checks or process interruptions, was 120 minutes. Testing was commenced approximately 20 minutes after the incinerator secondary chamber had achieved temperature of 1000°C and the primary chamber was commenced burning.

Triplicate test runs were conducted.

The following were recorded at five minutes intervals throughout the test:

- Sampling time;
- Dry gas meter;
- Volume;
- Pitot tube pressure;
- Stack gas temperature;
- Oven and impinger temperatures;
- Dry gas meter temperatures;
- Control module orifice pressure; and
- Sampling pump vacuum pressure.

Following the conclusion of each test, sampling trains were disassembled and recovered at a clean location on site. The probe, connecting glassware and impinger contents were each recovered as per the procedures outlined in the method.

4.2 DIOXINS/FURANS

Sampling for dioxins and furans was conducted using a single isokinetic sampling train in accordance with the “Reference Method for Source Testing: Measurement of Releases of Selected Semi-Volatile Organic Compounds from Stationary Sources”, Environment Canada Report EPS 1/RM/2. Performance of the method involved the use of an integrated sampling train consisting of a quartz filter (pre-rinsed with a Hexane/Acetone solution), condenser, polymeric resin trap (XAD-2), and impingers. The use of the condenser ensured that the sample gas passing through the XAD-2 resin trap was maintained at a temperature below 20°C.

All glassware, filters and resin used for this program were cleaned as per the Reference Method prior to equipment mobilization to site. A set of blank samples was collected from a fully assembled sampling train prior to beginning the sampling program. The blank samples were analyzed and are reported in the appendices.

On the Eco Waste incinerators, the sampling time per test, excluding port changes, leak checks or process interruptions, was 240 minutes. Testing was commenced once stable operation of the incinerator was obtained, approximately two and a half hours after commencement of incineration, and following the mercury emission test that day.

Triplicate test runs were conducted.

The source gas was collected using an air-cooled quartz probe and passed through a filter, condenser, XAD-2 resin, and impingers in sequence. The following were recorded at five minutes intervals throughout the test:

- Sampling time;
- Dry gas meter;
- Volume;
- Pitot tube pressure;
- Stack gas temperature;
- Oven and impinger temperatures;
- Dry gas meter temperatures;
- Control module orifice pressure; and
- Sampling pump vacuum pressure.

Following the conclusion of each test, sampling trains were disassembled and recovered at a clean location on site. The probe, filter, resin, condensate trap and impinger contents were each recovered as per the procedures outlined in the method for subsequent analysis according to the Environment Canada Method EPS 1/RM/3.

4.3 COMBUSTION GASES

For the purpose of determining molecular weight and to correct for oxygen content, O₂, and CO₂ monitoring was conducted. Sample gas was monitored in the exhaust of the isokinetic sampling train, throughout the sampling period following modified US EPA Methods 3A and 10. Analyzer calibrations for O₂ were conducted with certified calibration gases brought to the site. CO₂ was zeroed against ambient air while in the field but calibrated at the Mississauga office location.

5 RESULTS

5.1 SCHEDULE OF THE TEST PROGRAM

The sampling program was conducted from August 18th, 2024 to August 24th, 2024 per the following schedule:

Table 3: Test Schedule

Test ID	Source	Date	Start	Finish
Port HG-1, ORG-1	Milne Port Eco Waste	August 18, 2024	8:18	15:44
Port HG-2, ORG-2	Milne Port Eco Waste	August 19, 2024	8:55	15:41
Port HG-3, ORG-3	Milne Port Eco Waste	August 20, 2024	8:02	15:00
MR HG-1, ORG-1	Mary River Eco Waste	August 22, 2024	12:50	19:25
MR HG-2, ORG-2	Mary River Eco Waste	August 23, 2024	12:00	18:49
MR HG-3, ORG-3	Mary River Eco Waste	August 24, 2024	12:39	19:16

Notes:

Port – Milne Port

MR – Mary River

HG - Mercury

ORG – Organics (i.e., dioxin and furans)

5.2 TEST RESULTS

Results of the sampling program can be found within Tables 4 to 11. Calculations are shown in Appendix A. Field data sheets can be found in Appendix C.

These results are subject to the Appended Statement of Limitations.

Table 4A: Summary of Stack Gas Characteristics (D/F Tests) – Milne Port Eco Waste Incinerator

Test ID	Flow (DRm ³ /s)*	Oxygen (% dry)	Carbon Dioxide (% dry)	Moisture (%)	Stack Temp. (°C)
ORG-1	1.42	15.9	4.6	4.54	623
ORG-2	1.35	16.0	4.4	4.13	638
ORG-3	1.33	16.2	4.3	4.45	663
Average	1.37	16.0	4.43	4.37	641

Note:

*DRm³ = Dry reference cubic metres (25°C, 101.3 kPa)

Table 4B: Summary of Stack Gas Characteristics (Mercury Tests) – Milne Port Eco Waste Incinerator

Test ID	Flow (DRm ³ /s)*	Oxygen (% dry)	Carbon Dioxide (% dry)	Moisture (%)	Stack Temp. (°C)
ORG-1	1.33	14.7	5.6	6.67	631
ORG-2	1.33	14.4	5.7	7.54	645
ORG-3	1.39	14.0	6.2	8.84	659
Average	1.35	14.4	5.8	7.68	645

Note:

*DRm³ = Dry reference cubic metres (25°C, 101.3 kPa)

Table 5: Summary of In-Stack Dioxin/Furan Concentrations – Milne Port Eco Waste Incinerator

Test	In-Stack Concentration pg/DRm ³ *	Criteria pg/DRm ³ *	% of Criteria
1	6.86		
2	17.1		
3	6.44		
Average	10.1	80	12.7%

Note:

As per the Canada-Wide Standards requirement, the sample concentrations were reported as pg per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% oxygen

Table 6: Detailed Results: Dioxins/Furans –Milne Port Eco Waste Incinerator

Compound	CAS	Test 1 (pg/s)	Test 2 (pg/s)	Test 3 (pg/s)	Average (pg/s)
2,3,7,8-TCDD	1746-01-6	0.29	0.281	0.2	0.27
1,2,3,7,8-PeCDD	40321-76-4	0.41	1.01	1	0.7
1,2,3,4,7,8-HxCDD	39227-28-6	0.68	1.41	1	1
1,2,3,6,7,8-HxCDD	57653-85-7	1.9	3.5	2	2
1,2,3,7,8,9-HxCDD	19408-74-3	1.2	2.26	1	2
1,2,3,4,6,7,8-HpCDD	35822-46-9	12	22.8	12	16
OCDD	3268-87-9	26	25	14	22
2,3,7,8-TCDF	51207-31-9	0.9	2.62	0.34	1.28
1,2,3,7,8-PeCDF	57117-41-6	1.9	5.35	1.5	2.9
2,3,4,7,8-PeCDF	57117-31-4	3.7	8.4	3	5.0
1,2,3,4,7,8-HxCDF	70648-26-9	2.1	4.9	2	3.0
1,2,3,6,7,8-HxCDF	57117-44-9	3.1	6.0	2	3.9
2,3,4,6,7,8-HxCDF	72918-21-9	5.7	10.0	2	6
1,2,3,7,8,9-HxCDF	60851-34-5	1.5	3.4	2	2.2
1,2,3,4,6,7,8-HpCDF	67562-39-4	11	25	6	14
1,2,3,4,7,8,9-HpCDF	55673-89-7	1.9	5.6	3	3.5
OCDF	39001-02-1	9	18.2	5	11
Dioxins/Furans (TEQ)	N/A	4.9	11.4	4	7

Table 7: Summary of In-Stack Mercury Concentrations – Milne Port Eco Waste Incinerator

Test	In-Stack Concentration µg/DRm ³ *	Criteria pg/DRm ³ *	% of Criteria
1	0.236		
2	0.354		
3	0.309		
Average	0.300	20	1.5%

Note:

* As per the Canada-Wide Standards requirement, the sample concentrations were reported as pg per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% oxygen

Table 8A: Summary of Stack Gas Characteristics (D/F Tests) – Mary River Eco Waste Incinerator

Test ID	Flow (DRm ³ /s)*	Oxygen (% dry)	Carbon Dioxide (% dry)	Moisture (%)	Stack Temp. (°C)
ORG-1	1.05	14.9	5.2	5.16	557
ORG-2	0.96	14.5	5.4	5.44	736
ORG-3	0.90	15.1	5.2	4.95	744
Average	0.97	14.8	5.27	5.18	679

Note:

*DRm³ = Dry reference cubic metres (25°C, 101.3 kPa)

Table 8B: Summary of Stack Gas Characteristics (Mercury Tests) – Mary River Eco Waste Incinerator

Test ID	Flow (DRm ³ /s)*	Oxygen (% dry)	Carbon Dioxide (% dry)	Moisture (%)	Stack Temp. (°C)
ORG-1	0.89	12.4	7.1	9.85	726
ORG-2	1.06	15.5	4.4	5.50	756
ORG-3	1.04	13.1	6.7	9.07	716
Average	1.00	13.7	6.1	8.14	733

Note:

*DRm³ = Dry reference cubic metres (25°C, 101.3 kPa)

Table 9: Summary of In-Stack Dioxin/Furan Concentrations – Mary River Eco Waste Incinerator

Test	In-Stack Concentration pg/DRm ³	Criteria	% of Criteria
1	16.1		
2	64.8		
3*	25.7		
Average	35.5	80	44%

Notes:

*Corrected to 11% O₂

Table 10: Summary of In-Stack Mercury Concentrations – Mary River Eco Waste Incinerator

Test	In-Stack Concentration µg/DRm ³ *	Criteria pg/DRm ³ *	% of Criteria
1	0.655		
2	0.860		
3	9.53		
Average	3.68	20	18.4%

Note:

* As per the Canada-Wide Standards requirement, the sample concentrations were reported as pg per dry reference (25°C, 101.3 kPa) cubic metre corrected to 11% oxygen

Table 11: Detailed Results: Dioxins/Furans – Mary River Eco Waste Incinerator

Compound	CAS	Test 1 (pg/s)	Test 2 (pg/s)	Test 3 (pg/s)	Average (pg/s)
2,3,7,8-TCDD	1746-01-6	0.35	0.383	0.4	0.36
1,2,3,7,8-PeCDD	40321-76-4	0.88	2.72	1	1.6
1,2,3,4,7,8-HxCDD	39227-28-6	1.19	3.47	1	2
1,2,3,6,7,8-HxCDD	57653-85-7	2.9	8.2	4	5
1,2,3,7,8,9-HxCDD	19408-74-3	1.9	5.44	2	3
1,2,3,4,6,7,8-HpCDD	35822-46-9	22	65.1	29	39
OCDD	3268-87-9	26	85	47	53
2,3,7,8-TCDF	51207-31-9	2.4	1.42	1.64	1.83

Compound	CAS	Test 1 (pg/s)	Test 2 (pg/s)	Test 3 (pg/s)	Average (pg/s)
1,2,3,7,8-PeCDF	57117-41-6	3.5	7.11	3.2	4.6
2,3,4,7,8-PeCDF	57117-31-4	11.2	33.9	10	18.3
1,2,3,4,7,8-HxCDF	70648-26-9	5.1	24.9	7	12.4
1,2,3,6,7,8-HxCDF	57117-44-9	7.0	29.0	8	14.6
2,3,4,6,7,8-HxCDF	72918-21-9	12.7	75.0	21	36
1,2,3,7,8,9-HxCDF	60851-34-5	3.5	19.4	8	10.4
1,2,3,4,6,7,8-HpCDF	67562-39-4	27	167	59	84
1,2,3,4,7,8,9-HpCDF	55673-89-7	5.3	32.3	14	17.1
OCDF	39001-02-1	13	84.3	69	55
Dioxins/Furans (TEQ)	N/A	10.2	40.3	13.5	21.3

6 DISCUSSION

6.1 RESULTS

Dioxins/Furans

- The Milne Port Eco Waste Incinerator showed dioxin/furan concentrations at 12.7% of the applicable CCME CWS of 80 µg/DRm3@11% O2
- The Mary River Eco Waste Incinerator showed dioxin/furan concentrations at 44.4% of the applicable CCME CWS of 80 µg/DRm3@11% O2

Mercury

- The Milne Port Eco Waste Incinerator showed mercury concentrations at 1.50% of the applicable CCME CWS of 20 µg/DRm3@11% O2
- The Mary River Eco Waste Incinerator showed mercury concentrations at 18.4% of the applicable CCME CWS of 20 µg/DRm3@11% O2

All tests measured concentrations below the applicable criteria.

6.2 OBSERVATIONS AND COMMENTS

- 1 Stable Combustion** – Mercury tests were started shortly after ignition once secondary temperatures reached 1000°C. D/F tests were started approximately 2.5 hours later after the mercury tests were completed.
- 2 Mercury** - Mercury results were consistent with the previous mercury testing program.
- 3 Documentation of Waste** - During testing, the quantity of waste was measured largely in descriptive terms. (i.e., number of pallets, number of bags (no size or weights), number of buckets of sewage sludge). No weights or details of garbage bag contents were available. It is recommended for future programs, that personnel or students be assigned to quantify and weigh the waste for each batch. It is noted that each of the incinerators has a design for specific amounts of different wastes and for constructing the burn. Based on assumed weights and bag/pallet counts, the average burn was approximated at 1000 kg of waste.
- 4 Incinerator Monitoring Data** - Temperatures, opacity, and faults are monitored by the facility operating system. In the future, this data might be made available for inclusion in the testing report.
- 5 Primary Burner Faults** - During combustion, diesel fired burners maintain the primary and secondary temperatures. Occasionally, the primary burners on the incinerators showed faults occur during the test program. Typically, this occurred when the flames of the primary combustion were detected by the sensors. The fault condition then caused the burner to shut down and at times would have to be reset by plant staff after the flames had died down. At times, the reset was immediate and other times it took longer. This would have affected chamber temperatures and presumably would affect emissions. It is unclear what effect this would have overall.

6 Operations – During testing, operations were relatively stable and continuous with no noted interruptions.

6.3 RECOMMENDATIONS

- 1** Testing continues to be completed during summer months (June to September). Given the lead times required, it is recommended that the work be initiated approximately 3 months in advance.
- 2** For consistency, testing for D/F continues to be conducted after stable combustion is achieved (approximately 2.5 hours after ignition) following mercury testing.
- 3** It is recommended that waste be sorted and weighed for each test in order to meet operating manual specified quantities and ratios.

7 CLOSURE

The WSP sampling team is grateful for the cooperation of Baffinland during the execution of this test program. We look forward to future projects together.

Regards,
WSP Canada Inc.

Prepared by:



Steve McClure, B.E.S.
Manager, Air Quality Services

Reviewed by:



Caleb Vandenberg, P.Eng.
Air Quality Compliance Team Lead

Appendix A

Test Data and Calculations

Project Number
Company Name
Location
Source
Test Type

CA0037822.0833
Baffinland
Milne Port, Baffin Island, NU
Port Eco Waste Incinerator
Dioxins/Furans

Test Number		ORG-1	ORG-2	ORG-3
Date		18-Aug-24	19-Aug-24	20-Aug-24
Start Time Trav. 1		11:25	11:26	10:40
End Time Trav. 1		13:25	13:26	12:40
Start Time Trav. 2		13:44	13:41	13:00
End Time Trav. 2		15:44	15:41	15:00
Number of Traverses Tested		2	2	2
Gas Meter Coefficient		1.009	1.009	1.009
Pitot Tube Coefficient		0.840	0.840	0.840
Stack Diameter	feet	2.63	2.63	2.63
Nozzle Diameter	inches	0.500	0.500	0.500
Barometric Pressure	" Hg	29.80	29.70	29.70
Static Pressure	" H2O	-0.10	-0.15	-0.13
Impinger Collection				
Impinger 1	g	108	97	114
Impinger 2	g	41	37	33
Impinger 3	g	-1	-1	-1
Impinger 4	g	21	19	16
Total		169.0	152.0	162.0

Test Number		ORG-1	ORG-2	ORG-3	Averages
Equivalent Moisture Sample Volume	rcf	8.1	7.3	7.8	
Dry Gas Sample Volume at Meter	cf	168.58	169.04	166.39	168.00
Average Meter Temp	°F	73	74	74	74
Average Meter Pressure	"H2O	2.12	1.00	0.89	1.34
Dry Ref. Sample Volume	drcf	170.07	169.09	166.54	168.56
Dry Ref. Sample Volume	drm3	4.818	4.790	4.718	4.775
Stack Area	ft2	5.41	5.41	5.41	
Nozzle Area	inches2	0.1963	0.1963	0.1963	
Stack Pressure	"Hg	29.79	29.69	29.69	29.72
Potential Saturation Moisture	%	>100%	>100%	>100%	
Dry Mol. Weight of Gas	g/gmol	29.37	29.34	29.34	29.35
Wet Mol. Weight of Gas	g/gmol	28.86	28.88	28.83	28.85

STACK PARAMETERS SUMMARY					
Test Number		ORG-1	ORG-2	ORG-3	Averages
Moisture Vapour Content*	% v/v	4.54%	4.13%	4.45%	4.37%
Oxygen	% v/v dry	15.90%	16.00%	16.20%	16.03%
Carbon Dioxide	% v/v dry	4.60%	4.40%	4.30%	4.43%
Argon	% v/v dry	0.08%	0.08%	0.08%	0.08%
Nitrogen	% v/v dry	79.42%	79.52%	79.42%	79.45%
Average Stack Velocity	ft/s	29.2	28.1	28.6	28.6
	m/s	8.89	8.56	8.73	8.73
Average Stack Temperature	°F	1153	1181	1225	1186
	°C	623	638	663	641
Actual Stack Flow	acfm	9472	9118	9297	9296
	am3/s	4.47	4.31	4.39	4.39
Dry Ref. Stack Flow	drcfm	3014	2854	2824	2897
	drm3/s	1.42	1.35	1.33	1.37

*Moisture Content is calculated from the lower of measured and saturation moisture (based on stack temperature)

Project Number
Company Name
Location
Source
Test Type

CA0037822.0833
Baffinland
Milne Port, Baffin Island, NU
Port Eco Waste Incinerator
Dioxins/Furans

Analysis		ORG-1	ORG-2	ORG-3	Average
Dioxins/Furans	TEQ pg	16.69	40.6	14.42	
2,3,7,8-TCDD	pg	0.98	1	0.83	
1,2,3,7,8-PeCDD	pg	1.4	3.6	2.1	
1,2,3,4,7,8-HxCDD	pg	2.31	5	2.07	
1,2,3,6,7,8-HxCDD	pg	6.41	12.6	7.11	
1,2,3,7,8,9-HxCDD	pg	3.98	8.03	3.9	
1,2,3,4,6,7,8-HpCDD	pg	41.8	80.9	43	
OCDD	pg	89.7	90.6	51	
2,3,7,8-TCDF	pg	3	9.32	1.2	
1,2,3,7,8-PeCDF	pg	6.35	19	5.29	
2,3,4,7,8-PeCDF	pg	12.5	29.8	10.3	
1,2,3,4,7,8-HxCDF	pg	7.18	17.5	7.25	
1,2,3,6,7,8-HxCDF	pg	10.6	21.5	8.61	
2,3,4,6,7,8-HxCDF	pg	19.4	35.7	7.1	
1,2,3,7,8,9-HxCDF	pg	5.06	12.2	5.4	
1,2,3,4,6,7,8-HpCDF	pg	38.3	89.9	22.7	
1,2,3,4,7,8,9-HpCDF	pg	6.3	20	10.4	
OCDF	pg	30.3	64.7	17.3	
PCB-081	pg	18.3	34	12	
PCB-077	pg	178	17700	5090	
PCB-123	pg	8.7	9.9	12	
PCB-118	pg	137	246	72	
PCB-114	pg	8.3	15.8	16	
PCB-105	pg	69	131	44	
PCB-126	pg	34.2	99.8	25.4	
PCB-167	pg	4.6	11	4.8	
PCB-156/157	pg	26.2	52.6	16	
PCB-169	pg	7.81	19.6	5.5	
PCB-189	pg	8.7	20	8.2	

Concentration

Dioxins/Furans	TEQ pg/DRm3	3.5	8.5	3	5	Criteria	
Dioxins/Furans corrected to 11% O ₂	TEQ pg/DRm3	6.86	17.1	6.44	10.1	80	12.7%
2,3,7,8-TCDD	pg/DRm3	0.203	0.209	0.18	0.20		
1,2,3,7,8-PeCDD	pg/DRm3	0.29	0.75	0	0.5		
1,2,3,4,7,8-HxCDD	pg/DRm3	0.48	1.04	0	0.7		
1,2,3,6,7,8-HxCDD	pg/DRm3	1.3	2.63	2	2		
1,2,3,7,8,9-HxCDD	pg/DRm3	0.8	1.68	1	1		
1,2,3,4,6,7,8-HpCDD	pg/DRm3	9	16.9	9	12		
OCDD	pg/DRm3	19	18.9	11	16		
2,3,7,8-TCDF	pg/DRm3	0.62	1.95	0.254	0.94		
1,2,3,7,8-PeCDF	pg/DRm3	1.3	3.97	1.1	2.1		
2,3,4,7,8-PeCDF	pg/DRm3	2.6	6.2	2	3.7		
1,2,3,4,7,8-HxCDF	pg/DRm3	1.5	3.7	2	2.2		
1,2,3,6,7,8-HxCDF	pg/DRm3	2.2	4.5	2	2.8		
2,3,4,6,7,8-HxCDF	pg/DRm3	4.0	7.5	2	4		
1,2,3,7,8,9-HxCDF	pg/DRm3	1.1	2.55	1.1	1.6		
1,2,3,4,6,7,8-HpCDF	pg/DRm3	8	19	5	11		
1,2,3,4,7,8,9-HpCDF	pg/DRm3	1.3	4.2	2.2	2.6		
OCDF	pg/DRm3	6.3	13.5	4	8		
PCB-081	pg/DRm3	3.8	7.1	3	4		
PCB-077	pg/DRm3	36.9	3695.2	1079	1604		
PCB-123	pg/DRm3	1.8	2.1	3	2		
PCB-118	pg/DRm3	28.4	51.4	15	32		
PCB-114	pg/DRm3	1.7	3.3	3	3		
PCB-105	pg/DRm3	14.3	27.3	9	17		
PCB-126	pg/DRm3	7.1	20.8	5	11		
PCB-167	pg/DRm3	1.0	2.3	1	1		
PCB-156/157	pg/DRm3	5.4	11.0	3	7		

Project Number	CA0037822.0833				
Company Name	Baffinland				
Location	Milne Port, Baffin Island, NU				
Source	Port Eco Waste Incinerator				
Test Type	Dioxins/Furans				
PCB-169	pg/DRm3	1.6	4.1	1	2
PCB-189	pg/DRm3	1.8	4.2	2	3
Emissions	TEQ pg/s	4.9	11.4	4	7
	TEQ g/s	4.93E-12	1.14E-11	4.08E-12	6.81E-12
2,3,7,8-TCDD	pg/s	0.29	0.281	0.2	0.27
1,2,3,7,8-PeCDD	pg/s	0.41	1.01	1	0.7
1,2,3,4,7,8-HxCDD	pg/s	0.68	1.41	1	1
1,2,3,6,7,8-HxCDD	pg/s	1.9	3.5	2	2
1,2,3,7,8,9-HxCDD	pg/s	1.2	2.26	1	2
1,2,3,4,6,7,8-HpCDD	pg/s	12	22.8	12	16
OCDD	pg/s	26	25	14	22
2,3,7,8-TCDF	pg/s	0.9	2.62	0.34	1.28
1,2,3,7,8-PeCDF	pg/s	1.9	5.35	1.5	2.9
2,3,4,7,8-PeCDF	pg/s	3.7	8.4	3	5.0
1,2,3,4,7,8-HxCDF	pg/s	2.1	4.9	2	3.0
1,2,3,6,7,8-HxCDF	pg/s	3.1	6.0	2	3.9
2,3,4,6,7,8-HxCDF	pg/s	5.7	10.0	2	6
1,2,3,7,8,9-HxCDF	pg/s	1.5	3.4	2	2.2
1,2,3,4,6,7,8-HpCDF	pg/s	11	25	6	14
1,2,3,4,7,8,9-HpCDF	pg/s	1.9	5.6	3	3.5
OCDF	pg/s	9	18.2	5	11
PCB-081	pg/s	5	9.6	3	6
PCB-077	pg/s	53	4979.8	1438	2157
PCB-123	pg/s	3	2.8	3	3
PCB-118	pg/s	40	69.2	20	43
PCB-114	pg/s	2	4.4	5	4
PCB-105	pg/s	20	36.9	12	23
PCB-126	pg/s	10	28.1	7	15
PCB-167	pg/s	1	3.1	1	2
PCB-156/157	pg/s	8	14.8	5	9
PCB-169	pg/s	2	5.5	2	3
PCB-189	pg/s	3	5.6	2	4

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: ORG-1
 DATE: 18-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 11:25 13:44
 Finish 13:25 15:44

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	11:25	0.0	468.51	0.100	2.00	1221	63	63	15.0	5.3	31.7	88.8
	11:30	5.0	471.88	0.100	2.00	1207	68	62	15.0	5.3	31.6	88.3
	11:35	10.0	475.26	0.100	2.00	1200	71	63	15.0	5.3	31.5	89.9
	11:40	15.0	478.72	0.100	2.10	1207	72	63	15.0	5.3	31.6	91.0
2	11:45	20.0	482.22	0.100	2.20	1199	73	63	15.0	4.6	31.5	93.3
	11:50	25.0	485.82	0.090	2.00	1176	73	63	15.9	5.0	29.7	94.7
	11:55	30.0	489.31	0.090	2.00	1184	75	64	15.3	5.1	29.7	93.8
	12:00	35.0	492.77	0.090	2.00	1191	75	65	15.3	5.1	29.8	94.2
3	12:05	40.0	496.24	0.090	2.00	1196	76	65	15.3	5.1	29.9	94.0
	12:10	45.0	499.70	0.090	2.00	1200	77	65	15.3	5.1	29.9	93.7
	12:15	50.0	503.15	0.090	2.00	1208	77	66	15.3	5.1	30.0	94.2
	12:20	55.0	506.61	0.090	2.00	1213	77	67	15.3	5.1	30.0	95.0
4	12:25	60.0	510.10	0.090	2.00	1209	77	67	15.4	5.0	30.0	93.8
	12:30	65.0	513.55	0.090	2.00	1208	77	67	15.4	5.1	30.0	97.1
	12:35	70.0	517.12	0.090	2.00	1205	71	67	15.3	5.0	29.9	90.7
	12:40	75.0	520.44	0.090	2.00	1204	78	68	15.4	5.0	29.9	93.2
5	12:45	80.0	523.88	0.090	2.00	1203	78	68	15.5	4.6	29.9	93.2
	12:50	85.0	527.32	0.090	2.00	1154	78	68	16.0	4.1	29.5	93.2
	12:55	90.0	530.81	0.090	2.10	1127	78	68	16.6	4.5	29.2	93.2
	13:00	95.0	534.33	0.090	2.10	1157	78	69	15.8	4.8	29.5	94.2
6	13:05	100.0	537.86	0.090	2.10	1151	78	69	16.0	4.6	29.4	93.3
	13:10	105.0	541.36	0.090	2.10	1157	78	69	15.9	4.6	29.5	94.5
	13:15	110.0	544.90	0.090	2.10	1156	78	70	15.9	4.6	29.5	94.1
	13:20	115.0	548.43	0.090	2.10	1160	78	70	15.8	4.6	29.5	92.9
	13:25	120.0	551.91									
Traverse 1			83.40	0.092	2.04	1187	75	66	15.5	4.9	30.1	93.1

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: ORG-1
 DATE: 18-Aug-24

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	13:44	0.0	551.91	0.090	2.20	1100	71	71	16.1	4.5	29.0	93.8
	13:49	5.0	555.47	0.090	2.20	1153	77	70	16.1	4.5	29.5	96.6
	13:54	10.0	559.09	0.090	2.20	1157	78	70	16.2	4.5	29.5	96.1
	13:59	15.0	562.69	0.090	2.20	1144	79	70	16.1	4.0	29.4	96.4
2	14:04	20.0	566.32	0.090	2.20	1143	79	70	16.3	4.3	29.4	96.3
	14:09	25.0	569.95	0.090	2.20	1143	79	70	16.6	4.2	29.4	96.6
	14:14	30.0	573.59	0.090	2.20	1141	80	71	16.6	4.2	29.4	96.1
	14:19	35.0	577.22	0.090	2.20	1149	80	71	16.5	4.2	29.4	96.9
3	14:24	40.0	580.87	0.090	2.20	1167	80	71	16.3	4.3	29.6	96.3
	14:29	45.0	584.48	0.090	2.20	1148	80	71	16.5	4.2	29.4	96.6
	14:34	50.0	588.12	0.090	2.20	1126	80	71	16.4	4.3	29.2	95.1
	14:39	55.0	591.73	0.090	2.20	1115	80	71	16.3	4.4	29.1	95.1
4	14:44	60.0	595.35	0.090	2.20	1120	80	71	17.0	3.8	29.2	94.4
	14:49	65.0	598.94	0.090	2.20	1126	80	71	16.3	4.4	29.2	94.9
	14:54	70.0	602.54	0.090	2.20	1119	80	71	16.4	4.3	29.1	94.6
	14:59	75.0	606.14	0.090	2.20	1122	80	71	16.4	4.4	29.2	94.5
5	15:04	80.0	609.73	0.090	2.20	1119	80	71	16.2	4.4	29.1	96.5
	15:09	85.0	613.40	0.090	2.20	1115	80	72	16.2	4.5	29.1	92.6
	15:14	90.0	616.93	0.090	2.20	1114	80	72	16.3	4.4	29.1	93.9
	15:19	95.0	620.51	0.090	2.20	1087	80	72	16.6	4.3	28.9	93.3
6	15:24	100.0	624.10	0.090	2.20	1076	80	72	17.1	3.8	28.7	93.3
	15:29	105.0	627.70	0.050	1.50	1051	80	72	16.3	4.3	21.3	110.5
	15:34	110.0	630.91	0.050	1.50	1051	80	72	16.3	4.4	21.3	107.0
	15:39	115.0	634.02	0.050	1.50	1053	80	72	16.4	4.4	21.3	105.7
	15:44	120.0	637.09									
Traverse 2			85.18	0.085	2.11	1118	79	71	16.4	4.3	28.2	96.8
TOTAL TEST			168.58	0.089	2.08	1153	77	69	15.9	4.6	29.2	94.9

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: ORG-2
 DATE: 19-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 11:26 13:41
 Finish 13:26 15:41

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY	
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)			(ft/s)	%I
1	11:26	0.0	691.08	0.090	2.00	1200	65	64			29.9	91.6
	11:31	5.0	694.43	0.090	2.00	1271	69	64	13.9	5.8	30.6	148.6
	11:36	10.0	699.77	0.090	2.00	1256	71	64	14.0	5.8	30.4	40.4
	11:41	15.0	701.23	0.090	2.20	1233	71	64	14.1	5.8	30.2	99.2
2	11:46	20.0	704.84	0.100	2.50	1213	72	64	15.3	5.0	31.7	98.5
	11:51	25.0	708.64	0.100	2.50	1239	75	64	15.5	4.8	31.9	98.2
	11:56	30.0	712.41	0.100	2.50	1249	76	65	14.7	5.1	32.0	98.5
	12:01	35.0	716.19	0.100	2.50	1248	76	65	14.8	5.2	32.0	99.0
3	12:06	40.0	719.99	0.100	2.50	1199	76	65	15.4	5.0	31.5	96.1
	12:11	45.0	723.73	0.100	2.50	1193	76	66	15.5	4.6	31.5	90.9
	12:16	50.0	727.28	0.100	2.50	1201	77	67	15.9	4.4	31.6	96.1
	12:21	55.0	731.03	0.090	2.50	1191	77	67	16.3	4.1	29.8	98.3
4	12:26	60.0	734.68	0.090	2.20	1196	77	67	16.3	4.1	29.9	97.6
	12:31	65.0	738.30	0.090	2.20	1197	77	68	16.3	4.1	29.9	98.3
	12:36	70.0	741.95	0.090	2.20	1196	77	68	16.4	4.0	29.9	96.9
	12:41	75.0	745.55	0.050	1.50	1163	77	69	16.5	4.0	22.1	111.3
5	12:46	80.0	748.67	0.050	1.50	1126	77	69	16.1	4.1	21.8	101.9
	12:51	85.0	751.56	0.050	1.50	1124	77	69	16.1	4.2	21.8	102.5
	12:56	90.0	754.47	0.050	1.50	1122	77	69	16.1	4.3	21.8	102.1
	13:01	95.0	757.37	0.050	1.50	1122	77	69	16.1	4.2	21.8	102.1
6	13:06	100.0	760.27	0.030	0.90	1089	77	69	16.4	4.1	16.7	110.9
	13:11	105.0	762.74	0.040	1.40	1095	77	69	16.3	4.2	19.3	103.8
	13:16	110.0	765.40	0.040	1.40	1117	77	70	15.7	4.5	19.4	108.0
	13:21	115.0	768.15	0.040	1.20	1121	77	70	15.6	4.6	19.5	102.9
	13:26	120.0	770.77									
Traverse 1			79.69	0.076	1.97	1182	75	67	15.6	4.6	27.0	99.7

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: ORG-2
 DATE: 19-Aug-24

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	13:41	0.0	771.60	0.070	1.90	1150	73	70			26.0	99.5
	13:46	5.0	774.90	0.070	1.90	1205	77	70	15.3	5.1	26.4	102.9
	13:51	10.0	778.27	0.070	1.90	1201	79	70	16.2	4.1	26.4	102.9
	13:56	15.0	781.65	0.070	1.80	1177	80	71	16.6	4.0	26.2	99.5
2	14:01	20.0	784.95	0.070	1.80	1221	80	71	15.8	4.5	26.6	100.2
	14:06	25.0	788.23	0.080	2.20	1234	81	71	15.8	4.5	28.5	103.9
	14:11	30.0	791.85	0.080	2.10	1182	81	71	16.9	3.6	28.1	102.2
	14:16	35.0	795.47	0.080	2.10	1196	81	71	16.8	3.6	28.2	101.0
3	14:21	40.0	799.03	0.080	2.10	1218	82	72	16.2	4.3	28.4	101.7
	14:26	45.0	802.60	0.100	2.60	1199	82	72	16.3	4.2	31.5	101.5
	14:31	50.0	806.60	0.100	2.60	1176	82	72	17.0	3.6	31.3	102.3
	14:36	55.0	810.66	0.100	2.60	1185	83	73	16.9	3.7	31.4	101.4
4	14:41	60.0	814.68	0.100	2.50	1196	83	73	16.2	4.2	31.5	99.9
	14:46	65.0	818.63	0.100	2.50	1190	83	73	16.9	3.8	31.5	99.8
	14:51	70.0	822.58	0.100	2.50	1182	84	73	16.9	3.8	31.4	99.9
	14:56	75.0	826.55	0.100	2.50	1180	84	74	16.1	4.2	31.4	98.0
5	15:01	80.0	830.45	0.090	2.40	1158	84	74	16.2	4.3	29.5	101.0
	15:06	85.0	834.29	0.090	2.40	1171	84	74	16.6	4.4	29.7	101.4
	15:11	90.0	838.13	0.090	2.40	1167	84	74	16.0	4.4	29.6	101.3
	15:16	95.0	841.97	0.090	2.40	1138	85	74	15.9	4.1	29.4	99.8
6	15:21	100.0	845.79	0.090	2.40	1150	85	75	16.6	4.0	29.5	100.1
	15:26	105.0	849.61	0.090	2.40	1150	85	75	16.6	4.4	29.5	99.5
	15:31	110.0	853.41	0.090	2.40	1152	85	75	15.9	4.4	29.5	99.3
	15:36	115.0	857.20	0.090	2.40	1155	85	75	16.1	4.4	29.5	98.4
	15:41	120.0	860.95									
Traverse 2			89.35	0.087	2.28	1181	82	73	16.3	4.2	29.2	100.7
TOTAL TEST			169.04	0.081	2.13	1181	79	70	16.0	4.4	28.1	100.2

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: ORG-3
 DATE: 20-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 10:40 13:00
 Finish 12:40 15:00

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	10:40	0.0	914.96	0.040	0.95	1200	65	65			20.0	97.2
	10:45	5.0	917.33	0.030	0.70	1250	68	65	14.7	5.8	17.6	100.1
	10:50	10.0	919.42	0.030	0.70	1245	68	65	15.4	5.0	17.5	100.4
	10:55	15.0	921.52	0.030	0.70	1255	70	65	15.7	4.8	17.6	94.8
2	11:00	20.0	923.50	0.030	0.70	1257	70	65	15.3	4.8	17.6	101.0
	11:05	25.0	925.61	0.030	0.70	1267	71	65	15.2	5.1	17.6	91.6
	11:10	30.0	927.52	0.100	2.30	1256	71	65	15.4	5.1	32.1	98.6
	11:15	35.0	931.27	0.100	2.30	1231	74	66	15.7	4.8	31.9	96.2
3	11:20	40.0	934.97	0.100	2.30	1231	74	66	16.3	4.4	31.9	97.3
	11:25	45.0	938.71	0.100	2.30	1223	76	66	16.6	4.0	31.8	99.7
	11:30	50.0	942.56	0.100	2.40	1253	76	67	16.8	3.8	32.1	95.6
	11:35	55.0	946.22	0.100	2.40	1244	77	67	16.9	3.7	32.0	99.9
4	11:40	60.0	950.06	0.100	2.40	1218	77	67	16.4	4.0	31.7	98.4
	11:45	65.0	953.87	0.100	2.40	1215	77	67	15.9	4.4	31.7	99.0
	11:50	70.0	957.71	0.100	2.40	1221	78	68	15.9	4.5	31.8	98.3
	11:55	75.0	961.52	0.100	2.50	1209	78	68	16.2	4.3	31.7	100.3
5	12:00	80.0	965.42	0.100	2.50	1208	78	68	16.3	4.3	31.6	96.9
	12:05	85.0	969.19	0.100	2.50	1206	78	69	16.4	4.2	31.6	100.1
	12:10	90.0	973.09	0.080	2.00	1213	78	69	16.3	4.2	28.3	103.4
	12:15	95.0	976.69	0.080	2.00	1160	78	69	16.2	4.2	27.9	96.9
6	12:20	100.0	980.12	0.080	2.00	1161	78	69	16.1	4.4	27.9	96.7
	12:25	105.0	983.54	0.080	2.10	1159	78	69	16.1	4.4	27.9	98.0
	12:30	110.0	987.01	0.080	2.10	1155	78	69	16.1	4.4	27.9	98.8
	12:35	115.0	990.51	0.080	2.10	1158	78	69	16.1	4.4	27.9	100.0
	12:40	120.0	994.05									
Traverse 1			79.09	0.078	1.89	1216	75	67	16.0	4.5	27.4	98.3

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: ORG-3
 DATE: 20-Aug-24

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	13:00	0.0	998.22	0.060	1.50	1206	76	70			24.5	99.9
	13:05	5.0	1001.24	0.060	1.50	1240	79	70	14.7	5.4	24.7	99.9
	13:10	10.0	1004.24	0.060	1.50	1196	80	71	16.4	4.3	24.4	100.4
	13:15	15.0	1007.30	0.060	1.50	1211	80	71	16.7	3.8	24.5	100.2
2	13:20	20.0	1010.34	0.080	1.70	1193	80	71	16.9	3.8	28.2	90.9
	13:25	25.0	1013.54	0.080	1.80	1263	80	71	15.9	4.5	28.8	95.2
	13:30	30.0	1016.82	0.080	1.80	1226	81	72	16.7	4.1	28.5	97.1
	13:35	35.0	1020.21	0.080	1.80	1196	81	72	17.2	3.6	28.2	97.1
3	13:40	40.0	1023.63	0.090	2.00	1268	81	72	16.1	4.3	30.6	98.5
	13:45	45.0	1027.23	0.090	2.00	1259	81	72	16.3	4.3	30.5	99.9
	13:50	50.0	1030.89	0.090	2.40	1235	82	72	16.5	4.2	30.3	103.8
	13:55	55.0	1034.72	0.090	2.40	1215	82	72	17.2	3.6	30.1	102.1
4	14:00	60.0	1038.51	0.100	2.70	1248	82	72	16.3	4.2	32.0	104.1
	14:05	65.0	1042.54	0.100	2.70	1263	82	73	16.0	4.2	32.2	103.4
	14:10	70.0	1046.53	0.100	2.50	1201	82	73	16.2	4.3	31.6	99.2
	14:15	75.0	1050.43	0.100	2.50	1210	82	73	16.7	3.8	31.7	97.4
5	14:20	80.0	1054.25	0.100	2.50	1247	82	73	16.1	4.4	32.0	100.5
	14:25	85.0	1058.15	0.100	2.50	1250	82	73	16.1	4.4	32.0	102.7
	14:30	90.0	1062.13	0.100	2.50	1272	82	73	16.0	4.4	32.2	100.2
	14:35	95.0	1065.99	0.100	2.50	1247	82	73	16.5	4.4	32.0	99.5
6	14:40	100.0	1069.85	0.100	2.50	1233	82	73	16.8	3.8	31.9	100.1
	14:45	105.0	1073.75	0.100	2.50	1240	82	73	16.1	4.2	31.9	101.9
	14:50	110.0	1077.71	0.100	2.50	1246	82	73	16.2	4.3	32.0	101.0
	14:55	115.0	1081.63	0.100	2.50	1258	82	73	16.1	4.4	32.1	100.6
	15:00	120.0	1085.52									
Traverse 2			87.30	0.088	2.18	1234	81	72	16.3	4.2	29.9	99.8
TOTAL TEST			166.39	0.083	2.04	1225	78	70	16.2	4.3	28.6	99.1

Project Number
Company Name
Location
Source
Test Type

CA0037822.0833
Baffinland
Milne Port, Baffin Island, NU
Port Eco Waste Incinerator
Mercury

Test Number		HG-1	HG-2	HG-3
Date		18-Aug-24	19-Aug-24	20-Aug-24
Start Time Trav. 1		08:18	08:55	08:02
End Time Trav. 1		09:18	09:55	09:02
Start Time Trav. 2		09:30	10:07	09:11
End Time Trav. 2		10:30	11:07	10:11
Number of Traverses Tested		2	2	2
Gas Meter Coefficient		1.009	1.009	1.009
Pitot Tube Coefficient		0.840	0.840	0.840
Stack Diameter	feet	2.63	2.63	2.63
Nozzle Diameter	inches	0.390	0.390	0.390
Barometric Pressure	" Hg	29.80	29.70	29.70
Static Pressure	" H2O	-0.15	-0.11	-0.13
Impinger Collection				
Impinger 1	g	47	62	84
Impinger 2	g	11	12	11
Impinger 3	g	1	2	2
Impinger 4	g	14	15	13
Total		73.0	91.0	110.0

Test Number		HG-1	HG-2	HG-3	Averages
Equivalent Moisture Sample Volume	rcf	3.5	4.4	5.3	
Dry Gas Sample Volume at Meter	cf	47.40	52.24	53.14	50.93
Average Meter Temp	°F	59	61	62	61
Average Meter Pressure	"H2O	0.60	0.35	0.38	0.44
Dry Ref. Sample Volume	drcf	48.94	53.47	54.34	52.25
Dry Ref. Sample Volume	drm3	1.386	1.515	1.540	1.480
Stack Area	ft2	5.41	5.41	5.41	
Nozzle Area	inches2	0.1195	0.1195	0.1195	
Stack Pressure	"Hg	29.79	29.69	29.69	29.72
Potential Saturation Moisture	%	>100%	>100%	>100%	
Dry Mol. Weight of Gas	g/gmol	29.48	29.49	29.55	29.51
Wet Mol. Weight of Gas	g/gmol	28.72	28.62	28.53	28.62

STACK PARAMETERS SUMMARY					
Test Number		HG-1	HG-2	HG-3	Averages
Moisture Vapour Content*	% v/v	6.67%	7.54%	8.84%	7.68%
Oxygen	% v/v dry	14.7%	14.4%	14.0%	14.4%
Carbon Dioxide	% v/v dry	5.6%	5.7%	6.2%	5.83%
Argon	% v/v dry	0.08%	0.08%	0.08%	0.08%
Nitrogen	% v/v dry	79.62%	79.82%	79.72%	79.72%
Average Stack Velocity	ft/s	28.2	29.1	31.2	29.5
	m/s	8.60	8.87	9.50	8.99
Average Stack Temperature	°F	1168	1193	1218	1193
	°C	631	645	659	645
Actual Stack Flow	acfm	9162	9445	10124	9577
	am3/s	4.33	4.46	4.78	4.52
Dry Ref. Stack Flow	drcfm	2814	2822	2939	2858
	drm3/s	1.33	1.33	1.39	1.35

*Moisture Content is calculated from the lower of measured and saturation moisture (based on stack temperature)

Project Number
Company Name
Location
Source
Test Type

CA0037822.0833
Baffinland
Milne Port, Baffin Island, NU
Port Eco Waste Incinerator
Mercury

Test		MET-1	MET-2	MET-3	Average
<u>Analyses</u>					
Hg - Imipingers	µg	0.067	0.215	0.194	
Hg - HCl Rinse	µg	0.138	0.138	0.138	
Hg - Total	µg	0.205	0.353	0.332	
<u>Concentrations</u>					
Hg	µg/DRm3	0.148	0.233	0.215	0.199
Hg (corrected to 11%O2)	µg/DRm3	0.236	0.354	0.309	0.300
<u>Emissions</u>					
Hg	g/s	1.96E-07	3.10E-07	2.99E-07	2.68E-07

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-1
 DATE: 18-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 08:18 09:30
 Finish 09:18 10:30

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	08:18	0.0	420.60	0.100	0.72	1180	48	48			31.4	93.1
	08:23	5.0	422.68	0.110	0.80	1176	50	50			32.9	92.2
	08:28	10.0	424.85	0.110	0.81	1176	52	49			32.9	92.9
2	08:33	15.0	427.04	0.110	0.83	1151	55	50	13.9	6.0	32.6	93.1
	08:38	20.0	429.26	0.110	0.83	1174	57	51	14.0	6.0	32.9	93.1
	08:43	25.0	431.47	0.110	0.83	1154	59	52	14.3	6.0	32.7	92.7
	08:48	30.0	433.69	0.110	0.84	1130	60	52	14.4	5.8	32.4	91.1
	08:53	35.0	435.89	0.100	0.80	1120	61	53	14.5	5.7	30.8	94.2
3	08:58	40.0	438.07	0.100	0.80	1131	62	54	14.7	5.7	30.9	93.4
	09:03	45.0	440.23	0.110	0.85	1135	63	55	15.9	4.6	32.5	93.6
	09:08	50.0	442.50	0.110	0.85	1140	63	55	15.4	5.0	32.5	88.8
4	09:13	55.0	444.65	0.110	0.85	1163	65	56	15.3	5.1	32.8	94.5
	09:18	60.0	446.93									
Traverse 1			26.33	0.108	0.82	1153	58	52	14.7	5.5	32.3	92.7

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-1
 DATE: 18-Aug-24

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	09:30	0.0	446.93	0.050	0.50	1142	60	59			21.9	113.8
	09:35	5.0	448.79	0.060	0.50	1176	61	59	14.7	5.4	24.3	98.1
	09:40	10.0	450.53	0.060	0.50	1163	64	59	14.3	5.9	24.2	97.4
2	09:45	15.0	452.27	0.060	0.50	1184	65	59	14.8	5.7	24.3	98.0
	09:50	20.0	454.01	0.060	0.50	1185	65	60	14.9	5.4	24.4	97.9
	09:55	25.0	455.75	0.060	0.50	1194	65	60	14.4	5.8	24.4	98.2
	10:00	30.0	457.49	0.060	0.50	1197	66	61	14.2	6.0	24.4	98.6
	10:05	35.0	459.24	0.060	0.50	1195	66	61	15.0	5.4	24.4	99.1
3	10:10	40.0	461.00	0.060	0.50	1195	66	61	14.6	5.4	24.4	98.6
	10:15	45.0	462.75	0.060	0.50	1190	67	61	14.5	5.7	24.4	98.3
	10:20	50.0	464.50	0.060	0.50	1192	67	61	14.4	5.8	24.4	97.8
4	10:25	55.0	466.24	0.060	0.50	1190	67	62	15.0	5.4	24.4	98.8
	10:30	60.0	468.00									
Traverse 2			21.07	0.059	0.50	1184	65	60	14.6	5.6	24.2	99.5
TOTAL TEST			47.40	0.083	0.66	1168	61	56	14.7	5.6	28.2	96.1

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-2
 DATE: 19-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 08:55 10:07
 Finish 09:55 11:07

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	08:55	0.0	638.49	0.030	0.40	1154	52	52			17.1	133.5
	09:00	5.0	640.14	0.030	0.40	1152	53	52			17.1	126.0
	09:05	10.0	641.70	0.100	0.90	1187	54	53	13.2	6.5	31.6	97.8
2	09:10	15.0	643.89	0.110	0.95	1192	57	53	13.5	6.5	33.2	100.0
	09:15	20.0	646.24	0.120	1.05	1203	59	54	13.5	6.6	34.7	101.1
	09:20	25.0	648.72	0.120	1.10	1207	61	54	13.8	6.3	34.8	99.8
	09:25	30.0	651.17	0.110	0.95	1210	62	55	13.9	6.2	33.3	100.7
	09:30	35.0	653.54	0.110	0.95	1221	63	55	13.6	6.3	33.4	100.9
3	09:35	40.0	655.91	0.100	0.90	1207	65	56	13.7	6.3	31.8	102.9
	09:40	45.0	658.23	0.100	0.90	1183	65	57	14.0	6.1	31.5	101.2
	09:45	50.0	660.53	0.090	0.85	1165	66	58	13.6	6.6	29.7	103.1
4	09:50	55.0	662.77	0.080	0.75	1126	66	58	14.4	5.8	27.7	106.0
4	09:55	60.0	664.97									
Traverse 1			26.48	0.092	0.84	1184	60	55	13.7	6.3	29.7	106.1

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-2
 DATE: 19-Aug-24

COMPANY: Baffinland
 LOCATION: Milne Port, Baffin Island, NU
 SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	10:07	0.0	664.97	0.020	0.25	1187	61	61	15.0	5.0	14.1	122.9
	10:12	5.0	666.22	0.020	0.25	1217	65	61	15.0	5.0	14.2	116.6
	10:17	10.0	667.40	0.090	0.85	1222	65	61	15.0	5.0	30.3	102.8
2	10:22	15.0	669.60	0.090	0.85	1226	65	61	15.0	5.0	30.3	104.3
	10:27	20.0	671.83	0.100	0.95	1189	67	61	15.0	5.0	31.6	104.7
	10:32	25.0	674.22	0.100	0.95	1186	69	61	15.0	5.0	31.6	103.1
	10:37	30.0	676.58	0.100	0.95	1192	70	62	15.0	5.0	31.6	105.3
	10:42	35.0	678.99	0.100	0.95	1189	70	62	15.0	5.0	31.6	104.3
3	10:47	40.0	681.38	0.100	0.95	1190	71	62	15.0	5.0	31.6	103.8
	10:52	45.0	683.76	0.100	0.95	1203	71	63	15.0	5.0	31.7	103.2
	10:57	50.0	686.12	0.100	0.90	1210	71	63	15.0	5.0	31.8	102.6
4	11:02	55.0	688.46	0.100	0.90	1213	71	64	15.0	5.0	31.8	99.5
	11:07	60.0	690.73									
Traverse 2			25.76	0.085	0.81	1202	68	62	15.0	5.0	28.5	106.1
TOTAL TEST			52.24	0.088	0.83	1193	64	58	14.4	5.7	29.1	106.1

PROJECT NUMBER: CA0037822.0833
TEST NUMBER: HG-3
DATE: 20-Aug-24
TIME: 1st Traverse 2nd Traverse
Start 08:02 09:11
Finish 09:02 10:11

COMPANY: Baffinland
LOCATION: Milne Port, Baffin Island, NU
SOURCE: Port Eco Waste Incinerator

TRAVERSE POINT DATA												
POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	08:02	0.0	861.47	0.110	0.90	1291	51	51			34.2	101.9
	08:07	5.0	863.75	0.100	0.85	1203	52	52			31.8	97.1
	08:12	10.0	865.88	0.100	0.85	1193	55	52	13.0	7.1	31.7	101.1
	08:17	15.0	868.11	0.100	0.85	1191	56	52	13.2	6.9	31.7	100.5
2	08:22	20.0	870.33	0.100	0.12	1218	56	52	13.7	6.5	31.9	100.6
	08:27	25.0	872.54	0.130	1.20	1230	61	54	13.5	6.6	36.5	103.0
	08:32	30.0	875.12	0.130	1.20	1252	63	55	13.5	6.6	36.7	104.2
	08:37	35.0	877.72	0.130	1.20	1247	65	56	13.6	6.5	36.7	104.5
3	08:42	40.0	880.34	0.130	1.20	1243	65	56	13.7	6.3	36.7	102.4
	08:47	45.0	882.91	0.130	1.20	1237	65	56	13.8	6.3	36.6	99.8
	08:52	50.0	885.42	0.100	0.85	1211	68	58	14.1	6.3	31.8	99.3
	08:57	55.0	887.64	0.100	0.85	1250	68	58	13.1	6.9	32.2	100.9
4	09:02	60.0	889.87									
Traverse 1			28.40	0.113	0.94	1231	60	54	13.5	6.6	34.0	101.3

PROJECT NUMBER: CA0037822.0833
TEST NUMBER: HG-3
DATE: 20-Aug-24

COMPANY: Baffinland
LOCATION: Milne Port, Baffin Island, NU
SOURCE: Port Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	09:11	0.0	889.87	0.030	0.32	1225	63	60			17.5	116.7
	09:16	5.0	891.29	0.030	0.30	1240	67	61	13.4	6.7	17.6	110.9
	09:21	10.0	892.64	0.100	0.82	1246	67	62	13.5	6.7	32.2	94.2
	09:26	15.0	894.73	0.110	0.90	1243	69	62	13.9	6.5	33.7	99.9
2	09:31	20.0	897.06	0.110	0.90	1254	70	63	14.0	6.3	33.8	101.3
	09:36	25.0	899.42	0.110	0.90	1241	70	63	14.1	6.1	33.7	100.5
	09:41	30.0	901.77	0.110	0.90	1239	71	63	14.2	6.0	33.7	100.3
	09:46	35.0	904.12	0.110	0.91	1230	71	64	14.3	5.9	33.6	101.2
3	09:51	40.0	906.50	0.070	0.65	1184	71	64	14.4	5.9	26.4	108.8
	09:56	45.0	908.57	0.070	0.65	1128	71	64	15.5	5.0	26.0	105.4
	10:01	50.0	910.61	0.070	0.65	1114	71	64	15.5	4.8	25.9	103.9
	10:06	55.0	912.63	0.070	0.65	1113	71	64	15.8	4.8	25.8	101.8
4	10:11	60.0	914.61									
Traverse 2			24.74	0.083	0.71	1205	69	63	14.4	5.9	28.3	103.7
TOTAL TEST			53.14	0.098	0.83	1218	65	59	14.0	6.2	31.2	102.5

Project Number	OAQS2305.1000
Company Name	Baffinland
Location	Mary River, Baffin Island, NU
Source	Mary River Eco Waste Incinerator
Test Type	Dioxins/Furans

Test Number		ORG-1	ORG-2	ORG-3
Date		22-Aug-24	23-Aug-24	24-Aug-24
Start Time Trav. 1		15:16	14:38	15:03
End Time Trav. 1		17:16	16:38	17:03
Start Time Trav. 2		17:25	16:49	17:16
End Time Trav. 2		19:25	18:49	19:16
Number of Traverses Tested		2	2	2
Gas Meter Coefficient		1.009	1.009	1.009
Pitot Tube Coefficient		0.840	0.840	0.840
Stack Diameter	feet	2.63	2.63	2.63
Nozzle Diameter	inches	0.500	0.500	0.500
Barometric Pressure	" Hg	28.80	29.50	29.50
Static Pressure	" H2O	-0.11	-0.12	-0.11
Impinger Collection				
Impinger 1	g	91	98	68
Impinger 2	g	41	26	44
Impinger 3	g	-1	0	-2
Impinger 4	g	27	25	11
Total		158.0	149.0	121.0

Test Number		ORG-1	ORG-2	ORG-3	Averages
Equivalent Moisture Sample Volume	rcf	7.6	7.1	5.8	
Dry Gas Sample Volume at Meter	cf	142.69	124.12	111.30	126.04
Average Meter Temp	°F	72	70	70	71
Average Meter Pressure	"H2O	1.22	0.53	0.43	0.73
Dry Ref. Sample Volume	drcf	139.11	124.12	111.32	124.85
Dry Ref. Sample Volume	drm3	3.941	3.516	3.153	3.537
Stack Area	ft2	5.41	5.41	5.41	
Nozzle Area	inches2	0.1963	0.1963	0.1963	
Stack Pressure	"Hg	28.79	29.49	29.49	29.26
Potential Saturation Moisture	%	>100%	>100%	>100%	
Dry Mol. Weight of Gas	g/gmol	29.43	29.44	29.44	29.44
Wet Mol. Weight of Gas	g/gmol	28.84	28.82	28.87	28.84

STACK PARAMETERS SUMMARY					
Test Number		ORG-1	ORG-2	ORG-3	Averages
Moisture Vapour Content*	% v/v	5.16%	5.44%	4.95%	5.18%
Oxygen	% v/v dry	14.9%	14.5%	15.1%	14.8%
Carbon Dioxide	% v/v dry	5.2%	5.4%	5.2%	5.27%
Argon	% v/v dry	0.08%	0.08%	0.08%	0.08%
Nitrogen	% v/v dry	79.82%	80.02%	79.62%	79.82%
Average Stack Velocity	ft/s	20.8	22.7	21.2	21.6
	m/s	6.33	6.92	6.47	6.57
Average Stack Temperature	°F	1034	1357	1371	1254
	°C	557	736	744	679
Actual Stack Flow	acfm	6740	7375	6894	7003
	am3/s	3.18	3.48	3.25	3.31
Dry Ref. Stack Flow	drcfm	2220	2038	1899	2052
	drm3/s	1.05	0.96	0.90	0.97

*Moisture Content is calculated from the lower of measured and saturation moisture (based on stack temperature)

Project Number
Company Name
Location
Source
Test Type

OAQS2305.1000
Baffinland
Mary River, Baffin Island, NU
Mary River Eco Waste Incinerator
Dioxins/Furans

Analysis		ORG-1	ORG-2	ORG-3	Average		
Dioxins/Furans TEQ	TEQ pg	38.5	147.3	47.41			
2,3,7,8-TCDD	pg	1.3	1.4	1.28			
1,2,3,7,8-PeCDD	pg	3.3	9.94	4.5			
1,2,3,4,7,8-HxCDD	pg	4.46	12.7	4.7			
1,2,3,6,7,8-HxCDD	pg	10.9	30.1	15.2			
1,2,3,7,8,9-HxCDD	pg	7.11	19.9	6.65			
1,2,3,4,6,7,8-HpCDD	pg	83.9	238	102			
OCDD	pg	97.2	310	166			
2,3,7,8-TCDF	pg	9.12	5.2	5.75			
1,2,3,7,8-PeCDF	pg	13.2	26	11.1			
2,3,4,7,8-PeCDF	pg	42	124	34.3			
1,2,3,4,7,8-HxCDF	pg	19	91	25.5			
1,2,3,6,7,8-HxCDF	pg	26.3	106	27			
2,3,4,6,7,8-HxCDF	pg	47.9	274	75			
1,2,3,7,8,9-HxCDF	pg	13.1	71	29.1			
1,2,3,4,6,7,8-HpCDF	pg	101	612	206			
1,2,3,4,7,8,9-HpCDF	pg	20	118	47.8			
OCDF	pg	47.5	308	242			
PCB-081	pg	17	65	26			
PCB-077	pg	81.6	226	3100			
PCB-123	pg	2.9	8.3	8.3			
PCB-118	pg	43.5	57.5	59.2			
PCB-114	pg	7.77	24.9	7.5			
PCB-105	pg	35.7	83.6	44.4			
PCB-126	pg	44.8	241	74			
PCB-167	pg	7.73	27.1	10.5			
PCB-156/157	pg	38.7	197	52.2			
PCB-169	pg	16.9	105	23.1			
PCB-189	pg	18	120	31.3			
Concentration							
Dioxins/Furans	TEQ pg/DRm3	9.8	41.9	15	22	Criteria	
Dioxins/Furans corrected to 11% O ₂	TEQ pg/DRm3	16.1	64.8	25.7	35.5	80	44.4%
2,3,7,8-TCDD	pg/DRm3	0.330	0.398	0.41	0.38		
1,2,3,7,8-PeCDD	pg/DRm3	0.84	2.83	1	1.7		
1,2,3,4,7,8-HxCDD	pg/DRm3	1.13	3.61	1	2.1		
1,2,3,6,7,8-HxCDD	pg/DRm3	2.8	8.56	5	5		
1,2,3,7,8,9-HxCDD	pg/DRm3	1.8	5.66	2	3		
1,2,3,4,6,7,8-HpCDD	pg/DRm3	21	67.7	32	40		
OCDD	pg/DRm3	25	88.2	53	55		
2,3,7,8-TCDF	pg/DRm3	2.31	1.48	1.823	1.87		
1,2,3,7,8-PeCDF	pg/DRm3	3.3	7.39	3.5	4.8		
2,3,4,7,8-PeCDF	pg/DRm3	10.7	35.3	11	18.9		
1,2,3,4,7,8-HxCDF	pg/DRm3	4.8	25.9	8	12.9		
1,2,3,6,7,8-HxCDF	pg/DRm3	6.7	30.1	9	15.1		
2,3,4,6,7,8-HxCDF	pg/DRm3	12.2	77.9	24	38		
1,2,3,7,8,9-HxCDF	pg/DRm3	3.3	20.19	9.2	10.9		
1,2,3,4,6,7,8-HpCDF	pg/DRm3	26	174	65	88		
1,2,3,4,7,8,9-HpCDF	pg/DRm3	5.1	33.6	15.2	17.9		
OCDF	pg/DRm3	12.1	87.6	77	59		
PCB-081	pg/DRm3	4.3	18.5	8	10		
PCB-077	pg/DRm3	20.7	64.3	983	356		
PCB-123	pg/DRm3	0.7	2.4	3	2		
PCB-118	pg/DRm3	11.0	16.4	19	15		
PCB-114	pg/DRm3	2.0	7.1	2	4		
PCB-105	pg/DRm3	9.1	23.8	14	16		
PCB-126	pg/DRm3	11.4	68.5	23	34		
PCB-167	pg/DRm3	2.0	7.7	3	4		
PCB-156/157	pg/DRm3	9.8	56.0	17	27		

Project Number	OAQS2305.1000				
Company Name	Baffinland				
Location	Mary River, Baffin Island, NU				
Source	Mary River Eco Waste Incinerator				
Test Type	Dioxins/Furans				
PCB-169	pg/DRm3	4.3	29.9	7	14
PCB-189	pg/DRm3	4.6	34.1	10	16
Emissions	TEQ pg/s	10.2	40.3	13.5	21.3
	TEQ g/s	1.02E-11	4.03E-11	1.35E-11	2.13E-11
2,3,7,8-TCDD	pg/s	0.35	0.383	0.4	0.36
1,2,3,7,8-PeCDD	pg/s	0.88	2.72	1	1.6
1,2,3,4,7,8-HxCDD	pg/s	1.19	3.47	1	2
1,2,3,6,7,8-HxCDD	pg/s	2.9	8.2	4	5
1,2,3,7,8,9-HxCDD	pg/s	1.9	5.44	2	3
1,2,3,4,6,7,8-HpCDD	pg/s	22	65.1	29	39
OCDD	pg/s	26	85	47	53
2,3,7,8-TCDF	pg/s	2.4	1.42	1.64	1.83
1,2,3,7,8-PeCDF	pg/s	3.5	7.11	3.2	4.6
2,3,4,7,8-PeCDF	pg/s	11.2	33.9	10	18.3
1,2,3,4,7,8-HxCDF	pg/s	5.1	24.9	7	12.4
1,2,3,6,7,8-HxCDF	pg/s	7.0	29.0	8	14.6
2,3,4,6,7,8-HxCDF	pg/s	12.7	75.0	21	36
1,2,3,7,8,9-HxCDF	pg/s	3.5	19.4	8	10.4
1,2,3,4,6,7,8-HpCDF	pg/s	27	167	59	84
1,2,3,4,7,8,9-HpCDF	pg/s	5.3	32.3	14	17.1
OCDF	pg/s	13	84.3	69	55
PCB-081	pg/s	4.5	17.78	7.39	9.90
PCB-077	pg/s	21.7	61.83	881.52	321.69
PCB-123	pg/s	0.8	2.27	2.36	1.80
PCB-118	pg/s	11.6	15.73	16.83	14.71
PCB-114	pg/s	2.1	6.81	2.13	3.67
PCB-105	pg/s	9.5	22.87	12.63	15.00
PCB-126	pg/s	11.9	65.94	21.04	32.96
PCB-167	pg/s	2.1	7.41	2.99	4.15
PCB-156/157	pg/s	10.3	53.90	14.84	26.34
PCB-169	pg/s	4.5	28.73	6.57	13.26
PCB-189	pg/s	4.8	32.83	8.90	15.51

PROJECT NUMBER: OAQS2305.1000
 TEST NUMBER: ORG-1
 DATE: 22-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 15:16 17:25
 Finish 17:16 19:25

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY	
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)			(ft/s)	%I
1	15:16	0.0	123.21	0.030	0.65	1330	67	67	15.1	5.1	18.2	98.6
	15:21	5.0	125.24	0.030	0.65	1326	69	67	15.1	4.8	18.2	97.3
	15:26	10.0	127.25	0.030	0.65	1322	71	66	15.6	4.6	18.2	99.0
	15:31	15.0	129.30	0.030	0.65	1328	71	66	15.7	4.6	18.2	98.7
2	15:36	20.0	131.34	0.030	0.65	1322	72	67	15.7	4.6	18.2	98.4
	15:41	25.0	133.38	0.030	0.65	1321	72	67	15.7	4.6	18.2	99.3
	15:46	30.0	135.44	0.030	0.65	1325	72	67	15.7	5.2	18.2	99.4
	15:51	35.0	137.50	0.050	1.10	1375	72	67	14.8	5.3	23.8	98.6
3	15:56	40.0	140.10	0.050	1.20	1373	73	67	14.9	5.0	23.8	103.8
	16:01	45.0	142.84	0.050	1.30	1352	73	67	15.0	5.0	23.7	105.1
	16:06	50.0	145.63	0.050	1.50	1353	75	67	15.0	5.0	23.7	111.1
	16:11	55.0	148.58	0.050	1.40	1349	75	67	13.9	6.0	23.7	113.5
4	16:16	60.0	151.60	0.060	1.50	1300	76	67	13.9	6.1	25.6	101.8
	16:21	65.0	154.61	0.060	2.00	740	76	67	13.9	6.1	21.1	94.3
	16:26	70.0	157.98	0.060	2.00	680	77	68	14.0	6.0	20.6	95.2
	16:31	75.0	161.48	0.060	2.10	675	77	68	14.7	5.7	20.5	98.3
5	16:36	80.0	165.10	0.050	1.90	700	77	68	15.2	5.0	18.9	105.8
	16:41	85.0	168.62	0.050	1.80	723	77	68	15.2	5.0	19.1	102.6
	16:46	90.0	172.00	0.050	1.80	712	77	68	15.3	5.0	19.0	101.8
	16:51	95.0	175.37	0.050	1.80	710	77	69	15.3	5.0	19.0	101.6
6	16:56	100.0	178.74	0.050	1.80	700	77	69	15.4	5.0	18.9	100.6
	17:01	105.0	182.09	0.050	1.80	711	77	69	15.4	4.9	19.0	100.4
	17:06	110.0	185.42	0.050	1.80	700	77	69	15.4	4.9	18.9	100.0
	17:11	115.0	188.75	0.050	1.80	697	77	69	15.5	4.8	18.9	100.4
	17:16	120.0	192.10									
Traverse 1			68.89	0.046	1.38	1047	74	68	15.1	5.1	20.2	101.1

PROJECT NUMBER: OAQS2305.1000
 TEST NUMBER: ORG-1
 DATE: 22-Aug-24

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	17:25	0.0	192.10	0.050	1.50	1308	71	70			23.4	111.3
	17:30	5.0	195.09	0.050	1.30	1374	75	69	14.3	5.5	23.8	109.5
	17:35	10.0	197.99	0.050	1.30	1374	76	69	14.8	5.2	23.8	108.7
	17:40	15.0	200.87	0.050	1.20	1371	76	69	15.0	5.1	23.8	105.6
2	17:45	20.0	203.67	0.050	1.20	1369	76	69	15.0	5.0	23.8	105.1
	17:50	25.0	206.46	0.050	1.10	1371	76	69	14.5	5.4	23.8	101.0
	17:55	30.0	209.14	0.050	1.10	1367	76	69	15.1	5.0	23.8	101.3
	18:00	35.0	211.83	0.050	1.10	1364	76	69	15.2	4.9	23.8	99.7
3	18:05	40.0	214.48	0.050	1.10	1363	76	69	15.2	4.9	23.8	100.8
	18:10	45.0	217.16	0.050	1.10	1363	76	69	15.3	4.9	23.8	100.8
	18:15	50.0	219.84	0.050	1.10	1368	76	69	15.1	5.0	23.8	100.2
	18:20	55.0	222.50	0.050	1.10	1362	76	69	15.1	5.0	23.7	100.0
4	18:25	60.0	225.16	0.050	1.50	859	76	69	14.8	5.1	20.2	95.7
	18:30	65.0	228.15	0.050	1.70	649	76	69	14.7	5.3	18.5	94.9
	18:35	70.0	231.38	0.050	2.00	617	76	69	14.7	5.2	18.3	99.4
	18:40	75.0	234.81	0.050	2.00	616	76	69	14.8	5.2	18.2	99.6
5	18:45	80.0	238.25	0.050	2.00	665	77	70	14.7	5.2	18.7	102.5
	18:50	85.0	241.72	0.050	2.00	655	77	70	14.6	5.3	18.6	102.1
	18:55	90.0	245.19	0.050	2.00	654	77	70	14.6	5.3	18.6	101.8
	19:00	95.0	248.65	0.050	2.00	696	77	70	14.6	5.3	18.9	103.7
6	19:05	100.0	252.11	0.050	2.00	701	77	70	14.6	5.3	19.0	103.9
	19:10	105.0	255.57	0.050	2.00	700	77	70	14.5	5.3	18.9	103.2
	19:15	110.0	259.01	0.050	2.00	681	77	70	14.5	5.3	18.8	102.7
	19:20	115.0	262.46	0.050	2.00	676	77	70	14.5	5.3	18.8	102.2
	19:25	120.0	265.90									
Traverse 2			73.80	0.050	1.56	1022	76	69	14.8	5.2	21.3	102.3
TOTAL TEST			142.69	0.048	1.47	1034	75	68	14.9	5.2	20.8	101.7

PROJECT NUMBER: OAQS2305.1000
 TEST NUMBER: ORG-2
 DATE: 23-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 14:38 16:49
 Finish 16:38 18:49

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	14:38	0.0	313.80	0.030	0.70	1200	67	64			17.4	99.9
	14:43	5.0	315.90	0.030	0.70	1308	67	64	15.2	4.6	17.9	89.4
	14:48	10.0	317.72	0.030	0.70	1306	70	64	15.2	4.9	17.9	103.8
	14:53	15.0	319.84	0.030	0.70	1301	71	64	15.4	4.8	17.9	104.0
2	14:58	20.0	321.97	0.030	0.70	1297	71	65	15.3	4.8	17.9	104.8
	15:03	25.0	324.12	0.030	0.70	1299	71	65	15.4	4.8	17.9	103.8
	15:08	30.0	326.25	0.030	0.70	1296	71	65	15.4	4.6	17.8	103.3
	15:13	35.0	328.37	0.030	0.70	1284	71	65	15.5	4.6	17.8	102.4
3	15:18	40.0	330.48	0.060	1.50	1345	71	65	14.3	5.3	25.6	104.6
	15:23	45.0	333.47	0.060	1.40	1388	72	66	14.3	5.5	25.9	106.0
	15:28	50.0	336.47	0.060	1.40	1323	73	66	14.3	5.5	25.4	103.0
	15:33	55.0	339.44	0.060	1.40	1318	74	66	14.4	5.5	25.4	103.8
4	15:38	60.0	342.44	0.060	1.40	1320	74	66	13.9	5.7	25.4	103.1
	15:43	65.0	345.42	0.060	1.40	1319	74	66	13.6	6.1	25.4	102.4
	15:48	70.0	348.38	0.060	1.40	1320	74	66	13.5	6.1	25.4	102.8
	15:53	75.0	351.35	0.060	1.40	1315	74	66	13.5	6.1	25.4	101.3
5	15:58	80.0	354.28	0.060	1.40	1309	74	66	13.7	6.0	25.3	103.8
	16:03	85.0	357.29	0.060	1.40	1295	74	66	13.7	6.0	25.2	101.7
	16:08	90.0	360.25	0.050	1.00	1407	74	66	15.0	5.1	23.8	100.1
	16:13	95.0	362.83	0.050	1.00	1404	75	67	15.1	4.9	23.7	97.9
6	16:18	100.0	365.36	0.050	1.00	1413	75	67	15.2	4.9	23.8	100.8
	16:23	105.0	367.96	0.050	1.00	1401	75	67	15.2	4.8	23.7	97.4
	16:28	110.0	370.48	0.050	1.00	1405	75	67	15.2	4.8	23.7	97.9
	16:33	115.0	373.01	0.050	1.00	1407	75	67	15.3	4.8	23.8	96.4
	16:38	120.0	375.50									
Traverse 1			61.70	0.048	1.07	1333	73	66	14.7	5.2	22.5	101.4

PROJECT NUMBER: OAQS2305.1000
 TEST NUMBER: ORG-2
 DATE: 23-Aug-24

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	16:49	0.0	375.50	0.040	0.85	1354	70	69			20.9	100.9
	16:54	5.0	377.86	0.040	0.85	1389	71	69	14.3	5.7	21.1	100.5
	16:59	10.0	380.19	0.030	0.65	1374	73	68	14.4	5.4	18.2	102.5
	17:04	15.0	382.26	0.030	0.65	1374	73	68	14.4	5.4	18.2	102.5
2	17:09	20.0	384.33	0.050	1.10	1388	73	68	14.3	5.8	23.6	97.2
	17:14	25.0	386.85	0.050	1.20	1379	73	68	14.5	5.4	23.6	102.7
	17:19	30.0	389.52	0.050	1.20	1372	73	68	14.5	5.3	23.5	102.5
	17:24	35.0	392.19	0.050	1.20	1376	73	68	14.6	5.3	23.6	102.3
3	17:29	40.0	394.85	0.050	1.20	1362	73	68	14.6	5.3	23.5	102.6
	17:34	45.0	397.53	0.050	1.20	1366	74	68	14.5	5.3	23.5	102.7
	17:39	50.0	400.21	0.050	1.20	1370	74	68	14.5	5.3	23.5	102.0
	17:44	55.0	402.87	0.050	1.20	1363	74	68	14.3	5.5	23.5	102.2
4	17:49	60.0	405.54	0.050	1.20	1401	75	68	14.3	5.5	23.7	103.9
	17:54	65.0	408.23	0.050	1.20	1402	75	68	14.3	5.5	23.7	104.7
	17:59	70.0	410.94	0.050	1.20	1404	75	68	14.1	5.5	23.7	104.0
	18:04	75.0	413.63	0.050	1.20	1399	75	68	14.1	5.7	23.7	104.6
5	18:09	80.0	416.34	0.050	1.20	1381	75	68	14.2	5.7	23.6	104.1
	18:14	85.0	419.05	0.050	1.20	1402	75	68	14.2	5.5	23.7	104.3
	18:19	90.0	421.75	0.050	1.20	1358	75	68	14.2	5.5	23.4	103.5
	18:24	95.0	424.46	0.050	1.20	1391	75	69	14.2	5.5	23.7	102.0
6	18:29	100.0	427.11	0.050	1.20	1392	76	69	14.2	5.5	23.7	109.3
	18:34	105.0	429.95	0.050	1.20	1397	76	69	14.2	5.5	23.7	100.9
	18:39	110.0	432.57	0.050	1.20	1390	76	69	14.2	5.5	23.7	103.0
	18:44	115.0	435.25	0.050	1.20	1378	76	69	14.2	5.5	23.6	102.3
	18:49	120.0	437.92									
Traverse 2			62.42	0.048	1.12	1382	74	68	14.3	5.5	22.9	102.8
TOTAL TEST			124.12	0.048	1.10	1357	73	67	14.5	5.4	22.7	102.1

PROJECT NUMBER: OAQS2305.1000
 TEST NUMBER: ORG-3
 DATE: 24-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 15:03 17:16
 Finish 17:03 19:16

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	15:03	0.0	478.94	0.030	0.65	1270	64	63			17.7	98.6
	15:08	5.0	480.97	0.030	0.65	1270	65	62	15.7	4.6	17.7	98.1
	15:13	10.0	482.99	0.030	0.65	1284	67	62	16.1	4.5	17.8	95.4
	15:18	15.0	484.95	0.030	0.65	1274	68	62	15.7	4.8	17.7	49.4
2	15:23	20.0	485.97	0.030	0.65	1290	68	63	15.7	4.8	17.8	98.7
	15:28	25.0	488.00	0.030	0.65	1251	68	63	15.9	4.8	17.6	97.6
	15:33	30.0	490.03	0.030	0.65	1254	69	63	16.1	4.5	17.6	98.1
	15:38	35.0	492.07	0.030	0.65	1252	69	63	16.1	4.4	17.6	98.1
3	15:43	40.0	494.11	0.050	1.10	1367	70	64	15.4	5.0	23.5	96.8
	15:48	45.0	496.63	0.050	1.20	1398	71	64	15.6	4.9	23.7	101.5
	15:53	50.0	499.25	0.050	1.20	1387	71	64	15.6	4.9	23.6	101.2
	15:58	55.0	501.87	0.050	1.20	1368	71	64	15.9	4.5	23.5	100.3
4	16:03	60.0	504.48	0.050	1.20	1408	71	64	14.9	5.3	23.7	102.9
	16:08	65.0	507.13	0.050	1.20	1376	72	64	14.9	5.3	23.5	101.2
	16:13	70.0	509.76	0.050	1.20	1382	72	65	14.8	5.4	23.6	101.2
	16:18	75.0	512.39	0.040	0.81	1386	72	65	14.7	5.4	21.1	100.3
5	16:23	80.0	514.72	0.040	0.81	1324	72	65	16.2	4.4	20.8	96.0
	16:28	85.0	516.99	0.040	0.81	1327	72	65	16.1	4.4	20.8	99.5
	16:33	90.0	519.34	0.040	0.81	1320	72	66	16.2	4.3	20.7	93.3
	16:38	95.0	521.55	0.040	0.84	1306	72	66	16.1	4.4	20.7	97.2
6	16:43	100.0	523.86	0.040	0.84	1320	73	66	16.2	4.4	20.7	98.7
	16:48	105.0	526.20	0.040	0.85	1309	73	66	16.3	4.3	20.7	97.6
	16:53	110.0	528.52	0.040	0.85	1288	73	66	15.5	4.9	20.5	97.4
	16:58	115.0	530.85	0.040	0.85	1317	73	66	16.3	4.3	20.7	98.6
	17:03	120.0	533.19									
Traverse 1			54.25	0.040	0.87	1322	70	64	15.7	4.7	20.6	96.6

PROJECT NUMBER: OAQS2305.1000
 TEST NUMBER: ORG-3
 DATE: 24-Aug-24

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	17:16	0.0	533.95	0.030	0.62	1384	71	68			18.3	96.6
	17:21	5.0	535.90	0.030	0.62	1420	73	68	13.7	5.8	18.5	99.4
	17:26	10.0	537.89	0.040	0.81	1416	74	68	14.5	5.7	21.3	97.2
	17:31	15.0	540.14	0.040	0.83	1433	75	69	14.6	5.9	21.4	100.0
2	17:36	20.0	542.45	0.040	0.83	1402	75	69	14.5	5.3	21.2	98.3
	17:41	25.0	544.74	0.040	0.85	1420	75	69	14.9	5.2	21.3	101.8
	17:46	30.0	547.10	0.040	0.85	1422	75	69	15.2	5.1	21.3	98.4
	17:51	35.0	549.38	0.040	0.85	1407	76	69	15.3	5.1	21.2	100.5
3	17:56	40.0	551.72	0.050	1.10	1392	76	69	14.9	5.0	23.6	100.3
	18:01	45.0	554.34	0.050	1.10	1393	76	69	15.5	5.3	23.6	24.9
	18:06	50.0	554.99	0.050	1.10	1391	76	69	14.7	5.2	23.6	101.8
	18:11	55.0	557.65	0.050	1.10	1373	76	70	15.4	5.3	23.5	102.0
4	18:16	60.0	560.33	0.050	1.10	1450	76	70	14.6	5.9	24.0	180.7
	18:21	65.0	564.98	0.050	1.00	1448	77	70	14.3	5.8	24.0	100.5
	18:26	70.0	567.57	0.050	1.00	1450	77	70	14.3	6.7	24.0	100.1
	18:31	75.0	570.15	0.050	1.00	1432	77	70	13.1	5.8	23.9	99.3
5	18:36	80.0	572.72	0.040	0.80	1426	77	70	14.3	6.6	21.3	98.2
	18:41	85.0	575.00	0.040	0.80	1426	77	70	13.1	5.8	21.3	96.5
	18:46	90.0	577.24	0.040	0.81	1427	77	70	14.4	6.6	21.3	98.7
	18:51	95.0	579.53	0.040	0.83	1439	77	70	13.1	5.7	21.4	99.9
6	18:56	100.0	581.84	0.040	0.83	1420	77	70	14.5	6.4	21.3	98.5
	19:01	105.0	584.13	0.040	0.83	1426	77	70	13.3	6.4	21.3	99.1
	19:06	110.0	586.43	0.040	0.83	1420	77	70			21.3	98.5
	19:11	115.0	588.72	0.040	0.83	1447	77	70			21.5	98.8
	19:16	120.0	591.00									
Traverse 2			57.05	0.043	0.89	1419	76	69	14.4	5.7	21.9	99.6
TOTAL TEST			111.30	0.041	0.88	1371	73	67	15.1	5.2	21.2	98.1

Project Number	CA0037822.0833
Company Name	Baffinland
Location	Mary River, Baffin Island, NU
Source	Mary River Eco Waste Incinerator
Test Type	Mercury

Test Number		HG-1	HG-2	HG-3
Date		22-Aug-24	23-Aug-24	24-Aug-24
Start Time Trav. 1		12:50	12:00	12:39
End Time Trav. 1		13:50	13:00	13:39
Start Time Trav. 2		13:56	13:14	13:46
End Time Trav. 2		14:56	14:14	14:46
Number of Traverses Tested		2	2	2
Gas Meter Coefficient		1.009	1.009	1.009
Pitot Tube Coefficient		0.840	0.840	0.840
Stack Diameter	feet	2.63	2.63	2.63
Nozzle Diameter	inches	0.390	0.390	0.390
Barometric Pressure	" Hg	28.87	29.50	29.50
Static Pressure	" H2O	-0.13	-0.12	-0.14
Impinger Collection				
Impinger 1	g	61	41	60
Impinger 2	g	9	5	10
Impinger 3	g	1	-1	2
Impinger 4	g	12	7	12
Total		83.0	52.0	84.0

Test Number		HG-1	HG-2	HG-3	Averages
Equivalent Moisture Sample Volume	rcf	4.0	2.5	4.0	
Dry Gas Sample Volume at Meter	cf	36.59	41.98	39.36	39.31
Average Meter Temp	°F	61	59	57	59
Average Meter Pressure	"H2O	0.34	0.27	0.22	0.27
Dry Ref. Sample Volume	drcf	36.40	42.82	40.34	39.85
Dry Ref. Sample Volume	drm3	1.031	1.213	1.143	1.129
Stack Area	ft2	5.41	5.41	5.41	
Nozzle Area	inches2	0.1195	0.1195	0.1195	
Stack Pressure	"Hg	28.86	29.49	29.49	29.28
Potential Saturation Moisture	%	>100%	>100%	>100%	
Dry Mol. Weight of Gas	g/gmol	29.63	29.32	29.60	29.52
Wet Mol. Weight of Gas	g/gmol	28.49	28.70	28.54	28.58

STACK PARAMETERS SUMMARY					
Test Number		HG-1	HG-2	HG-3	Averages
Moisture Vapour Content*	% v/v	9.85%	5.50%	9.07%	8.14%
Oxygen	% v/v dry	12.40%	15.50%	13.10%	13.7%
Carbon Dioxide	% v/v dry	7.10%	4.40%	6.70%	6.07%
Argon	% v/v dry	0.08%	0.08%	0.08%	0.08%
Nitrogen	% v/v dry	80.42%	80.02%	80.12%	80.19%
Average Stack Velocity	ft/s	22.2	25.6	25.0	24.3
	m/s	6.78	7.81	7.63	7.41
Average Stack Temperature	°F	1340	1393	1321	1351
	°C	726	756	716	733
Actual Stack Flow	acfm	7224	8321	8127	7891
	am3/s	3.41	3.93	3.84	3.73
Dry Ref. Stack Flow	drcfm	1877	2249	2199	2109
	drm3/s	0.89	1.06	1.04	1.00

*Moisture Content is calculated from the lower of measured and saturation moisture (based on stack temperature)

Project Number	CA0037822.0833
Company Name	Baffinland
Location	Mary River, Baffin Island, NU
Source	Mary River Eco Waste Incinerator
Test Type	Mercury

Test		MET-1	MET-2	MET-3	Average	Criteria	% Criteria
Analyses							
Hg - Imipingers	µg	0.442	0.294	8.400			
Hg - HCl Rinse	µg	0.138	0.275	0.182			
Hg - Total	µg	0.580	0.569	8.582			
Concentrations							
Hg	µg/DRm3	0.562	0.469	7.510	2.847		
Hg (corrected to 11%O2)	µg/DRm3	0.655	0.860	9.53	3.68	20.00	18.41%
Emissions							
Hg	g/s	4.98E-07	4.98E-07	7.80E-06	2.93E-06		

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-1
 DATE: 22-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 12:50 13:56
 Finish 13:50 14:56

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	12:50	0.0	86.16	0.060	0.54	1223	52	52			25.1	110.2
	12:55	5.0	88.03	0.080	0.60	1362	53	52	11.4	7.1	30.2	102.4
	13:00	10.0	89.96	0.070	0.50	1398	54	53	11.2	7.6	28.5	100.6
	13:05	15.0	91.72	0.070	0.50	1429	56	53	9.7	8.7	28.8	101.8
2	13:10	20.0	93.49	0.070	0.50	1438	58	53	9.5	9.0	28.8	103.6
	13:15	25.0	95.29	0.050	0.40	1365	59	54	11.0	8.1	23.9	107.3
	13:20	30.0	96.90	0.050	0.40	1355	61	54	11.2	7.6	23.8	106.1
	13:25	35.0	98.50	0.050	0.40	1362	62	56	11.4	7.5	23.9	106.0
3	13:30	40.0	100.10	0.050	0.40	1352	63	56	11.3	7.5	23.8	105.6
	13:35	45.0	101.70	0.050	0.40	1352	63	56	10.9	7.6	23.8	104.9
	13:40	50.0	103.29	0.030	0.30	1291	65	58	11.1	7.6	18.1	112.6
	13:45	55.0	104.64	0.030	0.30	1282	65	58	10.9	7.6	18.1	111.5
4	13:50	60.0	105.98									
Traverse 1			19.82	0.055	0.44	1351	59	55	10.9	7.8	24.7	106.1

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-1
 DATE: 22-Aug-24

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	13:56	0.0	105.98	0.020	0.20	1250	63	60			14.6	118.1
	14:01	5.0	107.15	0.020	0.18	1283	65	61	14.1	5.5	14.8	113.8
	14:06	10.0	108.27	0.020	0.18	1294	66	62	14.4	5.1	14.8	116.0
	14:11	15.0	109.41	0.020	0.18	1301	67	62	14.4	5.1	14.8	115.1
2	14:16	20.0	110.54	0.070	0.53	1422	68	63	13.4	5.7	28.7	100.1
	14:21	25.0	112.32	0.070	0.53	1425	69	63	12.4	6.6	28.7	103.4
	14:26	30.0	114.16	0.050	0.40	1406	70	64	12.6	6.5	24.2	108.3
	14:31	35.0	115.80	0.050	0.40	1409	70	64	12.7	6.4	24.2	107.7
3	14:36	40.0	117.43	0.030	0.27	1307	70	64	13.5	5.9	18.2	112.8
	14:41	45.0	118.79	0.030	0.26	1270	70	65	14.4	5.1	18.0	109.0
	14:46	50.0	120.12	0.030	0.26	1271	70	65	14.4	5.1	18.0	109.1
	14:51	55.0	121.45	0.030	0.26	1301	70	65	14.4	5.1	18.2	107.5
4			14:56	60.0	122.75							
Traverse 2			16.77	0.037	0.30	1328	68	63	13.7	5.7	19.8	110.1
TOTAL TEST			36.59	0.046	0.37	1340	64	59	12.3	6.7	22.2	108.1

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-2
 DATE: 23-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 12:00 13:14
 Finish 13:00 14:14

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	12:00	0.0	266.01	0.060	0.70	1460	50	50			26.4	127.3
	12:05	5.0	268.09	0.070	0.80	1460	53	50	17.0	3.0	28.6	122.1
	12:10	10.0	270.25	0.070	0.80	1460	53	50	16.7	3.2	28.6	124.3
	12:15	15.0	272.45	0.070	0.80	1460	57	51	16.5	3.4	28.6	123.1
2	12:20	20.0	274.64	0.070	0.80	1460	60	52	16.2	3.6	28.6	123.8
	12:25	25.0	276.85	0.070	0.55	1465	61	52	16.5	3.4	28.6	104.7
	12:30	30.0	278.72	0.070	0.53	1462	61	54	17.0	2.9	28.6	101.1
	12:35	35.0	280.53	0.070	0.53	1453	62	54	17.4	2.9	28.5	101.3
3	12:40	40.0	282.35	0.070	0.52	1459	63	55	17.6	2.5	28.6	99.6
	12:45	45.0	284.14	0.070	0.52	1452	63	56	17.8	2.4	28.5	100.4
	12:50	50.0	285.95	0.070	0.51	1448	64	56	18.0	2.3	28.5	98.6
	12:55	55.0	287.73	0.070	0.51	1454	64	57	18.1	2.0	28.5	99.2
4	13:00	60.0	289.52									
Traverse 1			23.51	0.069	0.63	1458	59	53	17.2	2.9	28.4	110.5

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-2
 DATE: 23-Aug-24

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	13:14	0.0	290.56	0.030	0.29	1265	62	59			17.7	110.0
	13:19	5.0	291.93	0.030	0.26	1260	63	59	15.0	4.4	17.7	103.3
	13:24	10.0	293.22	0.030	0.25	1265	63	59	14.7	4.9	17.7	102.7
	13:29	15.0	294.50	0.070	0.51	1380	64	59	14.6	5.0	28.0	93.8
2	13:34	20.0	296.23	0.070	0.51	1411	65	60	13.2	6.0	28.2	98.2
	13:39	25.0	298.03	0.070	0.51	1414	65	60	13.1	6.2	28.2	97.8
	13:44	30.0	299.82	0.070	0.51	1409	66	60	13.1	4.8	28.2	97.0
	13:49	35.0	301.60	0.070	0.51	1323	66	61	13.0	6.3	27.5	94.1
3	13:54	40.0	303.37	0.070	0.51	1331	67	61	13.0	6.3	27.6	95.8
	13:59	45.0	305.17	0.030	0.25	1299	67	61	12.9	6.3	17.9	107.9
	14:04	50.0	306.51	0.030	0.25	1291	67	61	14.0	5.5	17.9	97.2
	14:09	55.0	307.72	0.030	0.25	1297	67	61	14.2	5.4	17.9	105.4
4	14:14	60.0	309.03									
Traverse 2			18.47	0.050	0.38	1329	65	60	13.7	5.5	22.9	100.3
TOTAL TEST			41.98	0.060	0.51	1393	62	57	15.4	4.2	25.6	105.4

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-3
 DATE: 24-Aug-24
 TIME: 1st Traverse 2nd Traverse
 Start 12:39 13:46
 Finish 13:39 14:46

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	TRAVERSE POINT DATA			O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
						STACK TEMP (deg F)	GAS METER IN (deg F)	TEMP OUT (deg F)				
1	12:39	0.0	438.35	0.080	0.60	1353	46	45			29.8	102.3
	12:44	5.0	440.25	0.080	0.59	1391	47	46	11.8	7.3	30.1	102.6
	12:49	10.0	442.14	0.080	0.58	1419	49	46	11.6	7.5	30.3	101.5
	12:54	15.0	444.00	0.080	0.58	1444	51	47	10.9	8.1	30.5	103.0
2	12:59	20.0	445.88	0.080	0.57	1450	53	48	11.0	8.0	30.5	101.8
	13:04	25.0	447.74	0.080	0.57	1448	55	49	11.0	8.0	30.5	102.5
	13:09	30.0	449.62	0.070	0.50	1322	57	50	11.4	7.8	27.6	99.4
	13:14	35.0	451.39	0.060	0.45	1318	57	51	11.6	7.6	25.5	101.7
3	13:19	40.0	453.07	0.060	0.45	1337	59	52	11.8	7.3	25.7	100.7
	13:24	45.0	454.73	0.060	0.45	1327	60	53	11.6	7.3	25.6	100.8
	13:29	50.0	456.40	0.060	0.45	1331	61	53	11.5	7.3	25.6	100.3
	13:34	55.0	458.06	0.060	0.45	1334	61	54	11.7	7.3	25.6	100.2
4	13:39	60.0	459.72									
Traverse 1			21.37	0.071	0.52	1373	55	50	11.4	7.6	28.1	101.4

PROJECT NUMBER: CA0037822.0833
 TEST NUMBER: HG-3
 DATE: 24-Aug-24

COMPANY: Baffinland
 LOCATION: Mary River, Baffin Island, NU
 SOURCE: Mary River Eco Waste Incinerator

POINT NO.	CLOCK TIME	SAMPLE TIME (min)	GAS VOLUME (ft3)	dP (in H2O)	dH (in H2O)	STACK TEMP (deg F)	GAS METER TEMP IN (deg F)	TEMP OUT (deg F)	O2 (% dry)	CO2 (% dry)	GAS VELOCITY (ft/s)	%I
1	13:46	0.0	459.72	0.030	0.26	1160	59	56			17.2	102.2
	13:51	5.0	460.98	0.030	0.26	1213	62	59	15.4	4.8	17.5	105.7
	13:56	10.0	462.27	0.030	0.26	1212	62	57	15.4	4.7	17.5	105.1
	14:01	15.0	463.55	0.030	0.26	1205	63	58	15.5	4.7	17.5	103.0
2	14:06	20.0	464.81	0.060	0.45	1334	63	58	14.6	5.4	25.6	100.3
	14:11	25.0	466.48	0.060	0.45	1335	64	59	13.8	6.0	25.6	102.5
	14:16	30.0	468.19	0.060	0.45	1340	65	59	13.7	6.0	25.7	100.7
	14:21	35.0	469.87	0.070	0.52	1305	66	60	13.6	6.1	27.5	99.3
3	14:26	40.0	471.68	0.070	0.52	1311	66	60	13.5	6.1	27.5	98.4
	14:31	45.0	473.47	0.040	0.32	1274	67	61	13.4	6.2	20.6	103.4
	14:36	50.0	474.91	0.040	0.32	1271	67	61	14.7	5.4	20.6	101.1
	14:41	55.0	476.32	0.040	0.32	1271	67	61	14.6	5.4	20.6	99.7
4	14:46	60.0	477.71									
Traverse 2			17.99	0.047	0.37	1269	64	59	14.4	5.5	21.9	101.8
TOTAL TEST			39.36	0.059	0.44	1321	59	54	12.9	6.6	25.0	101.6

Appendix B

Laboratory Certificates of Analysis



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6
Phone: 905-331-3111, FAX: 905-331-4567

Certificate of Analysis

ALS Project Contact: Robert Chin
ALS Project ID: WOO159
ALS WO#: L2757249
Date of Report: 26-Sep-24
Date of Sample Receipt: 3-Sep-24

Client Name: WSP Canada Inc.
Client Address: 160 Traders Blvd. E, Units 2&3
Mississauga, ON
L4Z 3K7
Client Contact: Steve McClure
Client Project ID: CA0037822.0833 BAFFINLAND
INCINERATOR TESTS 2024

COMMENTS: PCDD/F by EPA M23

Certified by:

A handwritten signature in black ink, appearing to read "Bradley Reimer".

Bradley Reimer
GC/MS Laboratory Senior Technical Specialist

Results in this certificate relate only to the samples as submitted to the laboratory.

This report shall not be reproduced, except in full, without the written permission of ALS Canada Ltd.

ALS Life Sciences						
Sample Analysis summary Report						
Sample Name	MARY RIVER ORG-1	MARY RIVER ORG-2	MARY RIVER ORG-3	PORT ORG-1	PORT ORG-2	PORT ORG-3
ALS Sample ID	L2757249-1	L2757249-2	L2757249-3	L2757249-4	L2757249-5	L2757249-6
Sample Size	1	1	1	1	1	1
Sample size units	Sample	Sample	Sample	Sample	Sample	Sample
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	Stack	Stack	Stack	Stack	Stack	Stack
Sampling Date	22-Aug-24	23-Aug-24	24-Aug-24	18-Aug-24	19-Aug-24	20-Aug-24
Extraction Date	11-Sep-24	11-Sep-24	11-Sep-24	11-Sep-24	11-Sep-24	11-Sep-24
Target Analytes	pg	pg	pg	pg	pg	pg
2,3,7,8-TCDD	<1.3	<1.4	1.28	<0.98	<1.0	<0.83
1,2,3,7,8-PeCDD	<3.3	9.94	<4.5	<1.4	<3.6	<2.1
1,2,3,4,7,8-HxCDD	4.46	12.7	<4.7	2.31	<5.0	2.07
1,2,3,6,7,8-HxCDD	10.9	30.1	15.2	6.41	12.6	7.11
1,2,3,7,8,9-HxCDD	7.11	19.9	6.65	3.98	8.03	<3.9
1,2,3,4,6,7,8-HpCDD	83.9	238	102	41.8	80.9	<43
OCDD	97.2	310	166	89.7	90.6	51.0
2,3,7,8-TCDF	9.12	<5.2	5.75	3.00	9.32	<1.2
1,2,3,7,8-PeCDF	13.2	<26	11.1	6.35	<19	5.29
2,3,4,7,8-PeCDF	42.0	124	34.3	12.5	29.8	10.3
1,2,3,4,7,8-HxCDF	<19	<91	25.5	7.18	17.5	7.25
1,2,3,6,7,8-HxCDF	26.3	106	<27	10.6	21.5	8.61
2,3,4,6,7,8-HxCDF	47.9	274	75.0	19.4	35.7	<7.1
1,2,3,7,8,9-HxCDF	13.1	71.0	29.1	5.06	12.2	<5.4
1,2,3,4,6,7,8-HpCDF	101	612	206	38.3	89.9	22.7
1,2,3,4,7,8,9-HpCDF	<20	118	47.8	<6.3	<20	10.4
OCDF	47.5	308	242	30.3	64.7	17.3
Field Spike Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
37Cl4-2,3,7,8-TCDD	103	101	101	99	99	98
13C12-1,2,3,4,7,8-HxCDD	91	85	92	93	95	88
13C12-2,3,4,7,8-PeCDF	120	116	121	119	121	109
13C12-1,2,3,4,7,8-HxCDF	101	108	106	81	93	104
13C12-1,2,3,4,7,8,9-HpCDF	91	101	95	91	92	91
Extraction Standards						
13C12-2,3,7,8-TCDD	73	86	85	86	95	87
13C12-1,2,3,7,8-PeCDD	77	87	87	90	101	83
13C12-1,2,3,6,7,8-HxCDD	95	100	102	105	114	108
13C12-1,2,3,4,6,7,8-HpCDD	86	90	93	96	112	97
13C12-OCDD	87	96	99	95	118	106
13C12-2,3,7,8-TCDF	69	77	76	82	88	81
13C12-1,2,3,7,8-PeCDF	62	71	69	73	81	71
13C12-1,2,3,6,7,8-HxCDF	87	86	89	96	106	93
13C12-1,2,3,4,6,7,8-HpCDF	74	78	82	83	97	88
Cleanup Standard						
13C12-1,2,3,7,8,9-HxCDF	65	67	74	68	77	70
Homologue Group Totals	pg	pg	pg	pg	pg	pg
Total-TCDD	42.5	28.0	71.7	<0.98	22.6	<0.83
Total-PeCDD	30.8	121	102	16.8	65.0	51.8
Total-HxCDD	153	358	160	88.0	156	126
Total-HpCDD	172	512	214	87.5	164	60.3
Total-TCDF	209	350	175	35.9	197	39.6
Total-PeCDF	354	1030	360	91.8	179	100
Total-HxCDF	240	1040	336	72.9	129	47.8
Total-HpCDF	179	1080	436	57.7	161	54.7
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	26.8	108	31.3	10.6	22.4	6.10
Mid Point PCDD/F TEQ (WHO 2005)	32.8	119	39.0	11.8	28.2	10.7
Upper Bound PCDD/F TEQ (WHO 2005)	33.5	120	39.0	13.0	28.2	11.2

ALS Life Sciences	
Sample Analysis summary Report	
Sample Name	ORG-BLANK
ALS Sample ID	L2757249-7
Sample Size	1
Sample size units	Sample
Percent Moisture	n/a
Sample Matrix	Stack
Sampling Date	18-Aug-24
Extraction Date	11-Sep-24
Target Analytes	pg
2,3,7,8-TCDD	<0.82
1,2,3,7,8-PeCDD	<0.57
1,2,3,4,7,8-HxCDD	<0.51
1,2,3,6,7,8-HxCDD	<0.49
1,2,3,7,8,9-HxCDD	<0.49
1,2,3,4,6,7,8-HpCDD	<1.2
OCDD	4.34
2,3,7,8-TCDF	<0.55
1,2,3,7,8-PeCDF	<1.0
2,3,4,7,8-PeCDF	<0.95
1,2,3,4,7,8-HxCDF	<0.56
1,2,3,6,7,8-HxCDF	<0.55
2,3,4,6,7,8-HxCDF	<0.56
1,2,3,7,8,9-HxCDF	<0.67
1,2,3,4,6,7,8-HpCDF	<0.42
1,2,3,4,7,8,9-HpCDF	<0.51
OCDF	<0.55
Field Spike Standards	% Rec
37Cl4-2,3,7,8-TCDD	98
13C12-1,2,3,4,7,8-HxCDD	95
13C12-2,3,4,7,8-PeCDF	125
13C12-1,2,3,4,7,8-HxCDF	91
13C12-1,2,3,4,7,8,9-HpCDF	90
Extraction Standards	
13C12-2,3,7,8-TCDD	74
13C12-1,2,3,7,8-PeCDD	77
13C12-1,2,3,6,7,8-HxCDD	84
13C12-1,2,3,4,6,7,8-HpCDD	75
13C12-OCDD	74
13C12-2,3,7,8-TCDF	71
13C12-1,2,3,7,8-PeCDF	59
13C12-1,2,3,6,7,8-HxCDF	75
13C12-1,2,3,4,6,7,8-HpCDF	66
Cleanup Standard	
13C12-1,2,3,7,8,9-HxCDF	65
Homologue Group Totals	pg
Total-TCDD	<0.82
Total-PeCDD	<0.57
Total-HxCDD	<0.51
Total-HpCDD	<1.2
Total-TCDF	<0.55
Total-PeCDF	<1.0
Total-HxCDF	<0.67
Total-HpCDF	<0.51
Toxic Equivalency - (WHO 2005)	
Lower Bound PCDD/F TEQ (WHO 2005)	0.00130
Mid Point PCDD/F TEQ (WHO 2005)	1.08
Upper Bound PCDD/F TEQ (WHO 2005)	2.17

ALS Life Sciences			
Quality Control Summary Report			
Sample Name	Method Blank	Method Blank	Laboratory Control Sample
ALS Sample ID	WG3790399-1	WG3790399-4	WG3790399-2
Sample Size	1.00	1.00	1.00
Sample size units	Sample	Sample	n/a
Percent Moisture	n/a	n/a	n/a
Sample Matrix	QC	QC	QC
Sampling Date	n/a	n/a	n/a
Extraction Date	11-Sep-24	11-Sep-24	11-Sep-24
Target Analytes	pg	pg	% Rec
2,3,7,8-TCDD	<0.45	<0.29	84
1,2,3,7,8-PeCDD	<0.37	<0.17	101
1,2,3,4,7,8-HxCDD	<0.27	<0.14	86
1,2,3,6,7,8-HxCDD	<0.25	<0.13	94
1,2,3,7,8,9-HxCDD	<0.25	<0.13	88
1,2,3,4,6,7,8-HpCDD	<0.94	<0.47	90
OCDD	<1.5	<0.76	88
2,3,7,8-TCDF	<0.23	<0.64	82
1,2,3,7,8-PeCDF	0.217	<0.25	106
2,3,4,7,8-PeCDF	<0.18	<0.24	101
1,2,3,4,7,8-HxCDF	<0.22	<0.12	94
1,2,3,6,7,8-HxCDF	<0.22	<0.12	98
2,3,4,6,7,8-HxCDF	<0.22	<0.12	86
1,2,3,7,8,9-HxCDF	<0.26	<0.14	90
1,2,3,4,6,7,8-HpCDF	<0.27	<0.12	92
1,2,3,4,7,8,9-HpCDF	<0.33	<0.15	91
OCDF	<0.56	<0.26	83
Field Spike Standards	% Rec	% Rec	% Rec
37Cl4-2,3,7,8-TCDD	NS	NS	NS
13C12-1,2,3,4,7,8-HxCDD	NS	NS	NS
13C12-2,3,4,7,8-PeCDF	NS	NS	NS
13C12-1,2,3,4,7,8-HxCDF	NS	NS	NS
13C12-1,2,3,4,7,8,9-HpCDF	NS	NS	NS
Extraction Standards			
13C12-2,3,7,8-TCDD	79	73	84
13C12-1,2,3,7,8-PeCDD	82	80	89
13C12-1,2,3,6,7,8-HxCDD	94	99	104
13C12-1,2,3,4,6,7,8-HpCDD	90	98	103
13C12-OCDD	93	104	108
13C12-2,3,7,8-TCDF	75	69	80
13C12-1,2,3,7,8-PeCDF	68	65	71
13C12-1,2,3,6,7,8-HxCDF	82	86	92
13C12-1,2,3,4,6,7,8-HpCDF	81	86	91
Cleanup Standard			
13C12-1,2,3,7,8,9-HxCDF	64	72	72
Homologue Group Totals	pg	pg	
Total-TCDD	<0.45	<0.29	
Total-PeCDD	<0.37	<0.17	
Total-HxCDD	<0.27	<0.14	
Total-HpCDD	<0.94	<0.47	
Total-TCDF	<0.23	<0.64	
Total-PeCDF	0.217	<0.25	
Total-HxCDF	<0.26	<0.14	
Total-HpCDF	<0.33	<0.15	
Toxic Equivalency - (WHO 2005)			
Lower Bound PCDD/F TEQ (WHO 2005)	0.00651	0.00	
Mid Point PCDD/F TEQ (WHO 2005)	0.548	0.351	
Upper Bound PCDD/F TEQ (WHO 2005)	1.09	0.701	

ALS Life Sciences									
Sample Analysis Report									
Sample Name		MARY RIVER ORG-1			Sampling Date		22-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-1			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A24							
Run Date		19-Sep-24 01:15							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	28.56	<1.3	1.3	M,U	1.1	20		
1,2,3,7,8-PeCDD	1	31.61	<3.3	2.2	M,J,R	3.3	100		
1,2,3,4,7,8-HxCDD	0.1	33.83	4.46	1.6	M,J		100		
1,2,3,6,7,8-HxCDD	0.1	33.91	10.9	1.6	J		100		
1,2,3,7,8,9-HxCDD	0.1	34.11	7.11	1.5	M,J		100		
1,2,3,4,6,7,8-HpCDD	0.01	36.42	83.9	0.74	J		100		
OCDD	0.0003	39.39	97.2	1.0	J		200		
2,3,7,8-TCDF	0.1	28.03	9.12	3.2	J		20		
1,2,3,7,8-PeCDF	0.03	30.89	13.2	1.0	M,J		100		
2,3,4,7,8-PeCDF	0.3	31.50	42.0	0.93	J		100		
1,2,3,4,7,8-HxCDF	0.1	33.27	<19	1.5	J,R	19	100		
1,2,3,6,7,8-HxCDF	0.1	33.35	26.3	1.5	J		100		
2,3,4,6,7,8-HxCDF	0.1	33.79	47.9	1.5	J		100		
1,2,3,7,8,9-HxCDF	0.1	34.50	13.1	1.8	J		100		
1,2,3,4,6,7,8-HpCDF	0.01	35.48	101	1.6			100		
1,2,3,4,7,8,9-HpCDF	0.01	37.08	<20	1.9	J,R	20	100		
OCDF	0.0003	39.74	47.5	1.7	J		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.56	103	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.82	91	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.50	120	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.26	101	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.06	91	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.54	73	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.60	77	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.90	95	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.41	86	25-130					
13C12-OCDD	8000	39.38	87	25-130					
13C12-2,3,7,8-TCDF	4000	28.02	69	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.87	62	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.34	87	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.46	74	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.47	65	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		4	42.5	1.3	20				
Total-PeCDD		2	30.8	2.2	100				
Total-HxCDD		6	153	1.6	100				
Total-HpCDD		2	172	0.74	100				
Total-TCDF		11	209	3.2	20				
Total-PeCDF		10	354	1.0	100				
Total-HxCDF		10	240	1.8	100				
Total-HpCDF		3	179	1.9	100				
Toxic Equivalency - (WHO 2005)			pg						
Lower Bound PCDD/F TEQ (WHO 2005)			26.8						
Mid Point PCDD/F TEQ (WHO 2005)			32.8						
Upper Bound PCDD/F TEQ (WHO 2005)			33.5						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Sample Analysis Report									
Sample Name		MARY RIVER ORG-2			Sampling Date		23-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-2			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A25							
Run Date		19-Sep-24 02:00							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	28.56	<1.4	1.4	M,U	1.0	20		
1,2,3,7,8-PeCDD	1	31.61	9.94	0.61	M,J		100		
1,2,3,4,7,8-HxCDD	0.1	33.82	12.7	1.1	M,J		100		
1,2,3,6,7,8-HxCDD	0.1	33.90	30.1	1.1	J		100		
1,2,3,7,8,9-HxCDD	0.1	34.11	19.9	1.1	J		100		
1,2,3,4,6,7,8-HpCDD	0.01	36.42	238	1.6			100		
OCDD	0.0003	39.37	310	1.7			200		
2,3,7,8-TCDF	0.1	28.02	<5.2	3.0	J,R	5.2	20		
1,2,3,7,8-PeCDF	0.03	30.87	<26	1.5	J,R	26	100		
2,3,4,7,8-PeCDF	0.3	31.50	124	1.4			100		
1,2,3,4,7,8-HxCDF	0.1	33.26	<91	1.3	J,R	91	100		
1,2,3,6,7,8-HxCDF	0.1	33.34	106	1.3			100		
2,3,4,6,7,8-HxCDF	0.1	33.79	274	1.3			100		
1,2,3,7,8,9-HxCDF	0.1	34.50	71.0	1.5	J		100		
1,2,3,4,6,7,8-HpCDF	0.01	35.46	612	1.3			100		
1,2,3,4,7,8,9-HpCDF	0.01	37.08	118	1.6			100		
OCDF	0.0003	39.74	308	1.9			200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.56	101	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.81	85	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.49	116	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.24	108	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.06	101	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.54	86	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.58	87	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.90	100	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.41	90	25-130					
13C12-OCDD	8000	39.37	96	25-130					
13C12-2,3,7,8-TCDF	4000	28.00	77	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.86	71	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.34	86	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.46	78	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.47	67	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		5	28.0	1.4	20				
Total-PeCDD		9	121	0.61	100				
Total-HxCDD		7	358	1.1	100				
Total-HpCDD		2	512	1.6	100				
Total-TCDF		12	350	3.0	20				
Total-PeCDF		13	1030	1.5	100				
Total-HxCDF		8	1040	1.5	100				
Total-HpCDF		4	1080	1.6	100				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCDD/F TEQ (WHO 2005)			108						
Mid Point PCDD/F TEQ (WHO 2005)			119						
Upper Bound PCDD/F TEQ (WHO 2005)			120						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Sample Analysis Report									
Sample Name		MARY RIVER ORG-3			Sampling Date		24-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-3			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A26							
Run Date		19-Sep-24 02:45							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	28.56	1.28	0.95	J		20		
1,2,3,7,8-PeCDD	1	31.60	<4.5	0.54	M,J,R	4.5	100		
1,2,3,4,7,8-HxCDD	0.1	33.81	<4.7	0.92	M,J,R	4.7	100		
1,2,3,6,7,8-HxCDD	0.1	33.90	15.2	0.88	J		100		
1,2,3,7,8,9-HxCDD	0.1	34.11	6.65	0.87	M,J		100		
1,2,3,4,6,7,8-HpCDD	0.01	36.41	102	0.85	M		100		
OCDD	0.0003	39.38	166	1.2	J		200		
2,3,7,8-TCDF	0.1	28.02	5.75	1.8	M,J		20		
1,2,3,7,8-PeCDF	0.03	30.87	11.1	0.65	J		100		
2,3,4,7,8-PeCDF	0.3	31.50	34.3	0.61	J		100		
1,2,3,4,7,8-HxCDF	0.1	33.26	25.5	0.71	J		100		
1,2,3,6,7,8-HxCDF	0.1	33.34	<27	0.70	J,R	27	100		
2,3,4,6,7,8-HxCDF	0.1	33.77	75.0	0.71	J		100		
1,2,3,7,8,9-HxCDF	0.1	34.49	29.1	0.84	J		100		
1,2,3,4,6,7,8-HpCDF	0.01	35.46	206	1.9			100		
1,2,3,4,7,8,9-HpCDF	0.01	37.06	47.8	2.3	J		100		
OCDF	0.0003	39.73	242	1.7			200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.54	101	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.81	92	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.49	121	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.24	106	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.05	95	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.53	85	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.58	87	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.88	102	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.41	93	25-130					
13C12-OCDD	8000	39.36	99	25-130					
13C12-2,3,7,8-TCDF	4000	28.00	76	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.86	69	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.33	89	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.45	82	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.46	74	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		6	71.7	0.95	20				
Total-PeCDD		4	102	0.54	100				
Total-HxCDD		6	160	0.92	100				
Total-HpCDD		2	214	0.85	100				
Total-TCDF		15	175	1.8	20				
Total-PeCDF		14	360	0.65	100				
Total-HxCDF		9	336	0.84	100				
Total-HpCDF		4	436	2.3	100				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCDD/F TEQ (WHO 2005)			31.3						
Mid Point PCDD/F TEQ (WHO 2005)			39.0						
Upper Bound PCDD/F TEQ (WHO 2005)			39.0						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Sample Analysis Report									
Sample Name		PORT ORG-1			Sampling Date		18-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-4			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A21							
Run Date		18-Sep-24 23:01							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	28.54	<0.98	0.98	M,U	0.73	20		
1,2,3,7,8-PeCDD	1	31.61	<1.4	1.4	U		100		
1,2,3,4,7,8-HxCDD	0.1	33.83	2.31	0.38	M,J		100		
1,2,3,6,7,8-HxCDD	0.1	33.91	6.41	0.36	M,J		100		
1,2,3,7,8,9-HxCDD	0.1	34.11	3.98	0.36	J		100		
1,2,3,4,6,7,8-HpCDD	0.01	36.42	41.8	0.98	J		100		
OCDD	0.0003	39.39	89.7	2.5	J		200		
2,3,7,8-TCDF	0.1	28.04	3.00	1.8	M,J		20		
1,2,3,7,8-PeCDF	0.03	30.87	6.35	1.5	J		100		
2,3,4,7,8-PeCDF	0.3	31.50	12.5	1.4	J		100		
1,2,3,4,7,8-HxCDF	0.1	33.28	7.18	0.55	J		100		
1,2,3,6,7,8-HxCDF	0.1	33.37	10.6	0.54	J		100		
2,3,4,6,7,8-HxCDF	0.1	33.79	19.4	0.55	M,J		100		
1,2,3,7,8,9-HxCDF	0.1	34.50	5.06	0.65	J		100		
1,2,3,4,6,7,8-HpCDF	0.01	35.47	38.3	1.5	J		100		
1,2,3,4,7,8,9-HpCDF	0.01	37.07	<6.3	1.8	J,R	6.3	100		
OCDF	0.0003	39.74	30.3	0.75	J		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.56	99	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.82	93	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.49	119	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.27	81	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.06	91	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.54	86	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.60	90	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.90	105	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.41	96	25-130					
13C12-OCDD	8000	39.38	95	25-130					
13C12-2,3,7,8-TCDF	4000	28.00	82	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.87	73	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.35	96	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.46	83	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.47	68	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		0	<0.98	0.98	U	20			
Total-PeCDD		4	16.8	1.4		100			
Total-HxCDD		6	88.0	0.38		100			
Total-HpCDD		2	87.5	0.98		100			
Total-TCDF		13	35.9	1.8		20			
Total-PeCDF		10	91.8	1.5		100			
Total-HxCDF		8	72.9	0.65		100			
Total-HpCDF		3	57.7	1.8		100			
Toxic Equivalency - (WHO 2005)			pg						
Lower Bound PCDD/F TEQ (WHO 2005)			10.6						
Mid Point PCDD/F TEQ (WHO 2005)			11.8						
Upper Bound PCDD/F TEQ (WHO 2005)			13.0						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Sample Analysis Report									
Sample Name		PORT ORG-2			Sampling Date		19-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-5			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A22							
Run Date		18-Sep-24 23:46							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	28.56	<1.0	1.0	M,J,R	1.0	20		
1,2,3,7,8-PeCDD	1	31.61	<3.6	0.53	J,R	3.6	100		
1,2,3,4,7,8-HxCDD	0.1	33.82	<5.0	2.0	M,J,R	5.0	100		
1,2,3,6,7,8-HxCDD	0.1	33.91	12.6	1.9	M,J		100		
1,2,3,7,8,9-HxCDD	0.1	34.11	8.03	1.9	M,J		100		
1,2,3,4,6,7,8-HpCDD	0.01	36.42	80.9	0.79	J		100		
OCDD	0.0003	39.38	90.6	0.84	J		200		
2,3,7,8-TCDF	0.1	28.03	9.32	1.5	J		20		
1,2,3,7,8-PeCDF	0.03	30.87	<19	0.85	J,R	19	100		
2,3,4,7,8-PeCDF	0.3	31.50	29.8	0.80	J		100		
1,2,3,4,7,8-HxCDF	0.1	33.27	17.5	0.93	J		100		
1,2,3,6,7,8-HxCDF	0.1	33.35	21.5	0.91	J		100		
2,3,4,6,7,8-HxCDF	0.1	33.79	35.7	0.93	J		100		
1,2,3,7,8,9-HxCDF	0.1	34.50	12.2	1.1	J		100		
1,2,3,4,6,7,8-HpCDF	0.01	35.48	89.9	1.2	J		100		
1,2,3,4,7,8,9-HpCDF	0.01	37.08	<20	1.4	J,R	20	100		
OCDF	0.0003	39.74	64.7	1.9	J		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.56	99	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.82	95	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.49	121	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.26	93	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.06	92	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.54	95	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.60	101	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.90	114	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.41	112	25-130					
13C12-OCDD	8000	39.37	118	25-130					
13C12-2,3,7,8-TCDF	4000	28.00	88	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.87	81	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.34	106	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.46	97	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.47	77	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		4	22.6	1.0	20				
Total-PeCDD		5	65.0	0.53	100				
Total-HxCDD		6	156	2.0	100				
Total-HpCDD		2	164	0.79	100				
Total-TCDF		18	197	1.5	20				
Total-PeCDF		12	179	0.85	100				
Total-HxCDF		8	129	1.1	100				
Total-HpCDF		3	161	1.4	100				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCDD/F TEQ (WHO 2005)			22.4						
Mid Point PCDD/F TEQ (WHO 2005)			28.2						
Upper Bound PCDD/F TEQ (WHO 2005)			28.2						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Sample Analysis Report									
Sample Name		PORT ORG-3			Sampling Date		20-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-6			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A23							
Run Date		19-Sep-24 00:31							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	28.57	<0.83	0.83	M,U		20		
1,2,3,7,8-PeCDD	1	31.61	<2.1	0.85	M,J,R	2.1	100		
1,2,3,4,7,8-HxCDD	0.1	33.83	2.07	0.80	J		100		
1,2,3,6,7,8-HxCDD	0.1	33.91	7.11	0.76	J		100		
1,2,3,7,8,9-HxCDD	0.1	34.12	<3.9	0.76	J,R	3.9	100		
1,2,3,4,6,7,8-HpCDD	0.01	36.42	<43	1.0	J,R	43	100		
OCDD	0.0003	39.38	51.0	1.4	J		200		
2,3,7,8-TCDF	0.1	28.04	<1.2	1.2	M,U	0.78	20		
1,2,3,7,8-PeCDF	0.03	30.89	5.29	0.66	M,J		100		
2,3,4,7,8-PeCDF	0.3	31.51	10.3	0.62	M,J		100		
1,2,3,4,7,8-HxCDF	0.1	33.27	7.25	1.0	J		100		
1,2,3,6,7,8-HxCDF	0.1	33.35	8.61	1.0	J		100		
2,3,4,6,7,8-HxCDF	0.1	33.80	<7.1	1.0	M,J,R	7.1	100		
1,2,3,7,8,9-HxCDF	0.1	34.50	<5.4	1.2	J,R	5.4	100		
1,2,3,4,6,7,8-HpCDF	0.01	35.49	22.7	1.5	J		100		
1,2,3,4,7,8,9-HpCDF	0.01	37.07	10.4	1.8	J		100		
OCDF	0.0003	39.75	17.3	1.8	J		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.57	98	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.82	88	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.50	109	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.26	104	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.07	91	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.54	87	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.60	83	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.90	108	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.42	97	25-130					
13C12-OCDD	8000	39.37	106	25-130					
13C12-2,3,7,8-TCDF	4000	28.02	81	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.87	71	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.34	93	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.46	88	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.49	70	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		0	<0.83	0.83	U		20		
Total-PeCDD		3	51.8	0.85			100		
Total-HxCDD		6	126	0.80			100		
Total-HpCDD		1	60.3	1.0			100		
Total-TCDF		5	39.6	1.2			20		
Total-PeCDF		13	100	0.66			100		
Total-HxCDF		5	47.8	1.2			100		
Total-HpCDF		4	54.7	1.8			100		
Toxic Equivalency - (WHO 2005)			pg						
Lower Bound PCDD/F TEQ (WHO 2005)			6.10						
Mid Point PCDD/F TEQ (WHO 2005)			10.7						
Upper Bound PCDD/F TEQ (WHO 2005)			11.2						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Sample Analysis Report									
Sample Name		ORG-BLANK			Sampling Date		18-Aug-24		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		L2757249-7			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A20							
Run Date		18-Sep-24 22:16							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	NotFnd	<0.82	0.82	U		20		
1,2,3,7,8-PeCDD	1	NotFnd	<0.57	0.57	U		100		
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.51	0.51	U		100		
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.49	0.49	U		100		
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		100		
1,2,3,4,6,7,8-HpCDD	0.01	36.42	<1.2	1.2	M,U	1.1	100		
OCDD	0.0003	39.37	4.34	0.96	M,J		200		
2,3,7,8-TCDF	0.1	NotFnd	<0.55	0.55	U		20		
1,2,3,7,8-PeCDF	0.03	30.87	<1.0	1.0	M,U	0.18	100		
2,3,4,7,8-PeCDF	0.3	31.47	<0.95	0.95	M,U	0.088	100		
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.56	0.56	U		100		
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.55	0.55	U		100		
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.56	0.56	U		100		
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.67	0.67	U		100		
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.42	0.42	U		100		
1,2,3,4,7,8,9-HpCDF	0.01	37.06	<0.51	0.51	M,U	0.43	100		
OCDF	0.0003	NotFnd	<0.55	0.55	U		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	400	28.56	98	70-130					
13C12-1,2,3,4,7,8-HxCDD	4000	33.81	95	70-130					
13C12-2,3,4,7,8-PeCDF	4000	31.49	125	70-130					
13C12-1,2,3,4,7,8-HxCDF	4000	33.26	91	70-130					
13C12-1,2,3,4,7,8,9-HpCDF	4000	37.06	90	70-130					
Extraction Standards									
13C12-2,3,7,8-TCDD	4000	28.54	74	40-130					
13C12-1,2,3,7,8-PeCDD	4000	31.58	77	40-130					
13C12-1,2,3,6,7,8-HxCDD	4000	33.90	84	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	4000	36.41	75	25-130					
13C12-OCDD	8000	39.37	74	25-130					
13C12-2,3,7,8-TCDF	4000	28.00	71	40-130					
13C12-1,2,3,7,8-PeCDF	4000	30.86	59	40-130					
13C12-1,2,3,6,7,8-HxCDF	4000	33.34	75	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	4000	35.46	66	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	4000	34.47	65	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		0	<0.82	0.82	U	20			
Total-PeCDD		0	<0.57	0.57	U	100			
Total-HxCDD		0	<0.51	0.51	U	100			
Total-HpCDD		0	<1.2	1.2	U	100			
Total-TCDF		0	<0.55	0.55	U	20			
Total-PeCDF		0	<1.0	1.0	U	100			
Total-HxCDF		0	<0.67	0.67	U	100			
Total-HpCDF		0	<0.51	0.51	U	100			
Toxic Equivalency - (WHO 2005)									
			pg						
Lower Bound PCDD/F TEQ (WHO 2005)		0.00130							
Mid Point PCDD/F TEQ (WHO 2005)		1.08							
Upper Bound PCDD/F TEQ (WHO 2005)		2.17							
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								

ALS Life Sciences									
Laboratory Method Blank Analysis Report									
Sample Name		Method Blank			Sampling Date		n/a		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		WG3790399-1			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Blank			Percent Moisture		n/a		
Sample Matrix		QC			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A18							
Run Date		18-Sep-24 20:47							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	NotFnd	<0.45	0.45	U		20		
1,2,3,7,8-PeCDD	1	NotFnd	<0.37	0.37	U		100		
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.27	0.27	U		100		
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.25	0.25	U		100		
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.25	0.25	U		100		
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.94	0.94	U		100		
OCDD	0.0003	39.39	<1.5	0.52	M,J,R	1.5	200		
2,3,7,8-TCDF	0.1	NotFnd	<0.23	0.23	U		20		
1,2,3,7,8-PeCDF	0.03	30.87	0.217	0.20	M,J		100		
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.18	0.18	U		100		
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.22	0.22	U		100		
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.22	0.22	U		100		
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.22	0.22	U		100		
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.26	0.26	U		100		
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.27	0.27	U		100		
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.33	0.33	U		100		
OCDF	0.0003	NotFnd	<0.56	0.56	U		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	0		NS						
13C12-1,2,3,4,7,8-HxCDD	0		NS						
13C12-2,3,4,7,8-PeCDF	0		NS						
13C12-1,2,3,4,7,8-HxCDF	0		NS						
13C12-1,2,3,4,7,8,9-HpCDF	0		NS						
Extraction Standards									
13C12-2,3,7,8-TCDD	2000	28.54	79	40-130					
13C12-1,2,3,7,8-PeCDD	2000	31.60	82	40-130					
13C12-1,2,3,6,7,8-HxCDD	2000	33.90	94	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	2000	36.41	90	25-130					
13C12-OCDD	4000	39.37	93	25-130					
13C12-2,3,7,8-TCDF	2000	28.02	75	40-130					
13C12-1,2,3,7,8-PeCDF	2000	30.87	68	40-130					
13C12-1,2,3,6,7,8-HxCDF	2000	33.34	82	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.46	81	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	2000	34.47	64	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		0	<0.45	0.45	U	20			
Total-PeCDD		0	<0.37	0.37	U	100			
Total-HxCDD		0	<0.27	0.27	U	100			
Total-HpCDD		0	<0.94	0.94	U	100			
Total-TCDF		0	<0.23	0.23	U	20			
Total-PeCDF		1	0.217	0.20		100			
Total-HxCDF		0	<0.26	0.26	U	100			
Total-HpCDF		0	<0.33	0.33	U	100			
Toxic Equivalency - (WHO 2005)									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00651							
Mid Point PCDD/F TEQ (WHO 2005)		0.548							
Upper Bound PCDD/F TEQ (WHO 2005)		1.09							
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								
NS	Indicates that this compound was not spiked								

ALS Life Sciences									
Laboratory Method Blank Analysis Report									
Sample Name		Method Blank			Sampling Date		n/a		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		WG3790399-4			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 Sample		
Analysis Type		Blank			Percent Moisture		n/a		
Sample Matrix		QC			Split Ratio		2		
Run Information		Run 1							
Filename		12-240918A19							
Run Date		18-Sep-24 21:31							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL		
2,3,7,8-TCDD	1	NotFnd	<0.29	0.29	U		20		
1,2,3,7,8-PeCDD	1	NotFnd	<0.17	0.17	U		100		
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.14	0.14	U		100		
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.13	0.13	U		100		
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.13	0.13	U		100		
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.47	0.47	U		100		
OCDD	0.0003	39.37	<0.76	0.58	M,J,R	0.76	200		
2,3,7,8-TCDF	0.1	NotFnd	<0.64	0.64	U		20		
1,2,3,7,8-PeCDF	0.03	30.87	<0.25	0.25	M,U	0.22	100		
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.24	0.24	U		100		
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.12	0.12	U		100		
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.12	0.12	U		100		
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.12	0.12	U		100		
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.14	0.14	U		100		
1,2,3,4,6,7,8-HpCDF	0.01	35.48	<0.12	0.12	M,U	0.066	100		
1,2,3,4,7,8,9-HpCDF	0.01	37.10	<0.15	0.15	M,U	0.079	100		
OCDF	0.0003	NotFnd	<0.26	0.26	U		200		
Field Spike Standards	pg		% Rec	Limits					
37Cl4-2,3,7,8-TCDD	0		NS						
13C12-1,2,3,4,7,8-HxCDD	0		NS						
13C12-2,3,4,7,8-PeCDF	0		NS						
13C12-1,2,3,4,7,8-HxCDF	0		NS						
13C12-1,2,3,4,7,8,9-HpCDF	0		NS						
Extraction Standards									
13C12-2,3,7,8-TCDD	2000	28.53	73	40-130					
13C12-1,2,3,7,8-PeCDD	2000	31.58	80	40-130					
13C12-1,2,3,6,7,8-HxCDD	2000	33.88	99	40-130					
13C12-1,2,3,4,6,7,8-HpCDD	2000	36.40	98	25-130					
13C12-OCDD	4000	39.35	104	25-130					
13C12-2,3,7,8-TCDF	2000	28.00	69	40-130					
13C12-1,2,3,7,8-PeCDF	2000	30.86	65	40-130					
13C12-1,2,3,6,7,8-HxCDF	2000	33.33	86	40-130					
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.45	86	25-130					
Cleanup Standard	pg								
13C12-1,2,3,7,8,9-HxCDF	2000	34.46	72	40-130					
Homologue Group Totals		# peaks	Conc. pg	EDL pg					
Total-TCDD		0	<0.29	0.29	U	20			
Total-PeCDD		0	<0.17	0.17	U	100			
Total-HxCDD		0	<0.14	0.14	U	100			
Total-HpCDD		0	<0.47	0.47	U	100			
Total-TCDF		0	<0.64	0.64	U	20			
Total-PeCDF		0	<0.25	0.25	U	100			
Total-HxCDF		0	<0.14	0.14	U	100			
Total-HpCDF		0	<0.15	0.15	U	100			
Toxic Equivalency - (WHO 2005)									
Lower Bound PCDD/F TEQ (WHO 2005)			0.00						
Mid Point PCDD/F TEQ (WHO 2005)			0.351						
Upper Bound PCDD/F TEQ (WHO 2005)			0.701						
EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.								
TEF	Indicates the Toxic Equivalency Factor				TEQ	Indicates the Toxic Equivalency			
M	Indicates that a peak has been manually integrated.								
U	Indicates that this compound was not detected above the EDL.								
J	indicates that a target analyte was detected below the calibrated range.								
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.								
LQL	Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.								
EMPC	Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure								
NS	Indicates that this compound was not spiked								

ALS Life Sciences									
Laboratory Control Sample Analysis Report									
Sample Name		Laboratory Control Sample			Sampling Date		n/a		Approved: M.Elchawiche --e-signature-- 25-Sep-2024
ALS Sample ID		WG3790399-2			Extraction Date		11-Sep-24		
Analysis Method		EPA M23			Sample Size		1 n/a		
Analysis Type		LCS			Percent Moisture		n/a		
Sample Matrix		QC			Split Ratio		1		
Run Information		Run 1							
Filename		12-240918A13							
Run Date		18-Sep-24 18:31							
Final Volume		20 uL							
Dilution Factor		1							
Analysis Units		%							
Instrument - Column		HRMS-12 ZB-DX1171742							
Target Analytes		pg	Ret. Time	% Rec	Limits	Flags			
2,3,7,8-TCDD		200	28.56	84	70-130				
1,2,3,7,8-PeCDD		1000	31.61	101	70-130				
1,2,3,4,7,8-HxCDD		1000	33.82	86	70-130				
1,2,3,6,7,8-HxCDD		1000	33.91	94	70-130				
1,2,3,7,8,9-HxCDD		1000	34.11	88	70-130				
1,2,3,4,6,7,8-HpCDD		1000	36.42	90	70-130				
OCDD		2000	39.38	88	70-130				
2,3,7,8-TCDF		200	28.02	82	70-130				
1,2,3,7,8-PeCDF		1000	30.87	106	70-130				
2,3,4,7,8-PeCDF		1000	31.50	101	70-130				
1,2,3,4,7,8-HxCDF		1000	33.27	94	70-130				
1,2,3,6,7,8-HxCDF		1000	33.35	98	70-130				
2,3,4,6,7,8-HxCDF		1000	33.79	86	70-130				
1,2,3,7,8,9-HxCDF		1000	34.49	90	70-130				
1,2,3,4,6,7,8-HpCDF		1000	35.47	92	70-130				
1,2,3,4,7,8,9-HpCDF		1000	37.07	91	70-130				
OCDF		2000	39.74	83	70-130				
Field Spike Standards		pg		% Rec	Limits				
37Cl4-2,3,7,8-TCDD		0		NS					
13C12-1,2,3,4,7,8-HxCDD		0		NS					
13C12-2,3,4,7,8-PeCDF		0		NS					
13C12-1,2,3,4,7,8-HxCDF		0		NS					
13C12-1,2,3,4,7,8,9-HpCDF		0		NS					
Extraction Standards									
13C12-2,3,7,8-TCDD		2000	28.54	84	40-130				
13C12-1,2,3,7,8-PeCDD		2000	31.60	89	40-130				
13C12-1,2,3,6,7,8-HxCDD		2000	33.90	104	40-130				
13C12-1,2,3,4,6,7,8-HpCDD		2000	36.41	103	25-130				
13C12-OCDD		4000	39.36	108	25-130				
13C12-2,3,7,8-TCDF		2000	28.00	80	40-130				
13C12-1,2,3,7,8-PeCDF		2000	30.87	71	40-130				
13C12-1,2,3,6,7,8-HxCDF		2000	33.34	92	40-130				
13C12-1,2,3,4,6,7,8-HpCDF		2000	35.46	91	25-130				
Cleanup Standard		pg							
13C12-1,2,3,7,8,9-HxCDF		2000	34.47	72	40-130				



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6
Phone: 905-331-3111, FAX: 905-331-4567

Certificate of Analysis

ALS Project Contact: R. Chin
ALS Project ID: WOO159
ALS WO#: L2757249
Date of Report: 26-Sep-24
Date of Sample Receipt: 3-Sep-24

Client Name: WSP Canada Inc.
Client Address: 160 Traders Blvd. E, Units 2&3
Mississauga, ON
L4Z 3K7
Client Contact: Steve McClure
Client Project ID: CA0037822.0833 BAFFINLAND
INCINERATOR TESTS 2024

COMMENTS: PCB Congeners by EPA 1668C

PCB Congener Group Totals and Total PCB are a sum of detected values, including EMPC values, consistent with USEPA CLP SOW CBC1.2

Certified by:

A handwritten signature in black ink, appearing to read "Bradley Reimer", is written over a horizontal line.

Bradley Reimer
GC/MS Laboratory Senior Technical Specialist

Results in this certificate relate only to the samples as submitted to the laboratory.
This report shall not be reproduced, except in full, without the written permission of ALS Canada Ltd.

ALS Life Sciences						
Sample Analysis Summary Report						
Sample Name	MARY RIVER ORG-1	MARY RIVER ORG-2	MARY RIVER ORG-3	PORT ORG-1	PORT ORG-2	PORT ORG-3
ALS Sample ID	L2757249-1	L2757249-2	L2757249-3	L2757249-4	L2757249-5	L2757249-6
Sample Size	1	1	1	1	1	1
Sample size units	Sample	Sample	Sample	Sample	Sample	Sample
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	Stack	Stack	Stack	Stack	Stack	Stack
Sampling Date	22-Aug-24	23-Aug-24	24-Aug-24	18-Aug-24	19-Aug-24	20-Aug-24
Extraction Date	11-Sep-24	11-Sep-24	11-Sep-24	11-Sep-24	11-Sep-24	11-Sep-24
Target Analytes	pg	pg	pg	pg	pg	pg
PCB-081	<17	65.0	<26	18.3	34.0	<12
PCB-077	81.6	226	3100	178	17700	5090
PCB-123	<2.9	<8.3	<8.3	<8.7	<9.9	<12
PCB-118	43.5	57.5	59.2	137	246	<72
PCB-114	7.77	24.9	<7.5	<8.3	15.8	<16
PCB-105	35.7	83.6	44.4	<69	131	<44
PCB-126	44.8	241	74.0	34.2	99.8	25.4
PCB-167	7.73	27.1	10.5	<4.6	<11	<4.8
PCB-156/157	38.7	197	52.2	26.2	52.6	<16
PCB-169	16.9	105	23.1	7.81	19.6	<5.5
PCB-189	<18	120	31.3	<8.7	<20	<8.2
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-PCB-081	115	117	85	117	130	98
13C12-PCB-077	113	119	90	127	137	116
13C12-PCB-123	113	115	86	126	127	114
13C12-PCB-118	115	114	89	126	129	106
13C12-PCB-114	116	112	88	123	126	93
13C12-PCB-105	113	111	88	124	130	104
13C12-PCB-126	119	107	89	98	116	113
13C12-PCB-167	101	99	77	103	112	116
13C12-PCB-156/157	97	98	73	104	113	113
13C12-PCB-169	99	104	77	106	118	117
13C12-PCB-189	111	108	83	108	120	115
Field Spike Standards						
13C12-PCB-031	NS	NS	NS	NS	NS	NS
13C12-PCB-095	NS	NS	NS	NS	NS	NS
13C12-PCB-153	NS	NS	NS	NS	NS	NS
Cleanup Standards						
13C12-PCB-028	103	92	82	92	104	100
13C12-PCB-111	71	74	57	75	72	70
13C12-PCB-178	68	69	51	66	69	73
Toxic Equivalency - (WHO 2005)						
Lower Bound PCB TEQ	5.00	27.3	8.41	3.68	12.4	3.05
Mid Point PCB TEQ	5.00	27.3	8.42	3.69	12.4	3.14
Upper Bound PCB TEQ	5.00	27.3	8.42	3.69	12.4	3.22

ALS Life Sciences		
Sample Analysis Summary Report		
Sample Name	ORG-BLANK	
ALS Sample ID	L2757249-7	
Sample Size	1	
Sample size units	Sample	
Percent Moisture	n/a	
Sample Matrix	Stack	
Sampling Date	18-Aug-24	
Extraction Date	11-Sep-24	
Target Analytes	pg	
PCB-081	<1.6	
PCB-077	<2.8	
PCB-123	<1.2	
PCB-118	29.0	
PCB-114	<1.4	
PCB-105	12.0	
PCB-126	<1.3	
PCB-167	<0.96	
PCB-156/157	2.82	
PCB-169	<0.98	
PCB-189	<0.79	
Extraction Standards	% Rec	
13C12-PCB-081	108	
13C12-PCB-077	106	
13C12-PCB-123	101	
13C12-PCB-118	107	
13C12-PCB-114	105	
13C12-PCB-105	103	
13C12-PCB-126	90	
13C12-PCB-167	88	
13C12-PCB-156/157	91	
13C12-PCB-169	95	
13C12-PCB-189	96	
Field Spike Standards		
13C12-PCB-031	NS	
13C12-PCB-095	NS	
13C12-PCB-153	NS	
Cleanup Standards		
13C12-PCB-028	107	
13C12-PCB-111	76	
13C12-PCB-178	72	
Toxic Equivalency - (WHO 2005)		
Lower Bound PCB TEQ	0.00131	
Mid Point PCB TEQ	0.0816	
Upper Bound PCB TEQ	0.162	

ALS Life Sciences		
Quality Control Summary Report		
Sample Name	Method Blank	Method Blank
ALS Sample ID	WG3790399-1	WG3790399-4
Sample Size	1	1
Sample size units	Method Blank	Reagent Blank
Percent Moisture	n/a	n/a
Sample Matrix	QC	QC
Sampling Date	n/a	n/a
Extraction Date	11-Sep-24	11-Sep-24
Target Analytes		
	pg	pg
PCB-081	<1.5	<1.7
PCB-077	<1.5	<1.7
PCB-123	<1.1	<1.4
PCB-118	3.25	<1.2
PCB-114	<1.0	<1.2
PCB-105	<2.7	<1.2
PCB-126	<1.0	<1.2
PCB-167	<0.69	<0.75
PCB-156/157	<0.89	<1.0
PCB-169	<0.69	<0.80
PCB-189	<1.1	<0.79
Extraction Standards		
	% Rec	% Rec
13C12-PCB-081	117	100
13C12-PCB-077	119	101
13C12-PCB-123	117	98
13C12-PCB-118	128	105
13C12-PCB-114	126	105
13C12-PCB-105	123	106
13C12-PCB-126	127	109
13C12-PCB-167	97	99
13C12-PCB-156/157	109	96
13C12-PCB-169	114	104
13C12-PCB-189	124	126
Field Spike Standards		
13C12-PCB-031	NS	NS
13C12-PCB-095	NS	NS
13C12-PCB-153	NS	NS
Cleanup Standards		
13C12-PCB-028	97	86
13C12-PCB-111	73	64
13C12-PCB-178	74	64
Toxic Equivalency - (WHO 2005)		
Lower Bound PCB TEQ	0.0000975	0.00
Mid Point PCB TEQ	0.0609	0.0725
Upper Bound PCB TEQ	0.122	0.145

ALS Life Sciences

Sample Analysis Summary Report

Sample Name

Laboratory Control
Sample

ALS Sample ID

WG3790399-2

Sample Size

1

Sample size units

n/a

Percent Moisture

n/a

Sample Matrix

QC

Sampling Date

n/a

Extraction Date

11-Sep-24

Target Analytes

% Rec

PCB-081

96

PCB-077

96

PCB-123

102

PCB-118

95

PCB-114

99

PCB-105

97

PCB-126

96

PCB-167

99

PCB-156/157

107

PCB-169

107

PCB-189

99

Extraction Standards

% Rec

13C12-PCB-081

97

13C12-PCB-077

100

13C12-PCB-123

99

13C12-PCB-118

105

13C12-PCB-114

104

13C12-PCB-105

103

13C12-PCB-126

113

13C12-PCB-167

91

13C12-PCB-156/157

86

13C12-PCB-169

93

13C12-PCB-189

101

Field Spike Standards

13C12-PCB-031

NS

13C12-PCB-095

NS

13C12-PCB-153

NS

Cleanup Standards

13C12-PCB-028

80

13C12-PCB-111

61

13C12-PCB-178

59

ALS Life Sciences									
Sample Analysis Report									
Sample Name		MARY RIVER ORG-1			Sampling Date		22-Aug-24		Sample
ALS Sample ID		L2757249-1			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
<div>Approved: A. Kuol --e-signature-- 24-Sep-2024</div>									
Run Information		Run 1							
Filename		5-240918A23							
Run Date		19-Sep-24 02:52							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	21.79	<17	2.0	M,J,R	17	100	
PCB-077		0.0001	22.08	81.6	2.2	M,J		100	
PCB-123		0.00003	NotFnd	<2.9	2.9	U		100	
PCB-118		0.00003	23.26	43.5	2.6	J		100	
PCB-114		0.00003	23.57	7.77	2.7	J		100	
PCB-105		0.00003	23.90	35.7	2.8	J		100	
PCB-126		0.1	25.50	44.8	2.8	M,J		100	
PCB-167		0.00003	26.42	7.73	1.4	M,J		100	
PCB-156/157		0.00003	27.05	38.7	1.9	J		200	
PCB-169		0.03	28.71	16.9	1.6	M,J		100	
PCB-189		0.00003	30.01	<18	1.2	M,J,R	18	100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.77	115	10-145				
13C12-PCB-077		4000	22.07	113	10-145				
13C12-PCB-123		4000	23.08	113	10-145				
13C12-PCB-118		4000	23.25	115	10-145				
13C12-PCB-114		4000	23.55	116	10-145				
13C12-PCB-105		4000	23.89	113	10-145				
13C12-PCB-126		4000	25.49	119	10-145				
13C12-PCB-167		4000	26.41	101	10-145				
13C12-PCB-156/157		8000	27.03	97	10-145				
13C12-PCB-169		4000	28.70	99	10-145				
13C12-PCB-189		4000	29.99	111	10-145				
Field Spike Standards									
13C12-PCB-031					NS				
13C12-PCB-095					NS				
13C12-PCB-153					NS				
Cleanup Standards									
13C12-PCB-028		4000	15.95	103	5-145				
13C12-PCB-111		4000	22.02	71	10-145				
13C12-PCB-178		4000	25.09	68	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ					5.00				
Mid Point PCB TEQ					5.00				
Upper Bound PCB TEQ					5.00				
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor			TEQ		Indicates the Toxic Equivalency		
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
B		Indicates that this target was detected in the blank at greater than 10% of the sample concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Sample Analysis Report									
Sample Name		MARY RIVER ORG-2			Sampling Date		23-Aug-24		Sample
ALS Sample ID		L2757249-2			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
Approved: A. Kuol --e-signature-- 24-Sep-2024									
Run Information		Run 1							
Filename		5-240918A24							
Run Date		19-Sep-24 03:34							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	21.78	65.0	2.0	M,J		100	
PCB-077		0.0001	22.07	226	2.1	M		100	
PCB-123		0.00003	23.11	<8.3	3.6	J,R	8.3	100	
PCB-118		0.00003	23.28	57.5	3.3	J		100	
PCB-114		0.00003	23.57	24.9	3.4	J		100	
PCB-105		0.00003	23.90	83.6	3.5	J		100	
PCB-126		0.1	25.50	241	3.7	M		100	
PCB-167		0.00003	26.41	27.1	2.4	M,J		100	
PCB-156/157		0.00003	27.03	197	3.2	M,J		200	
PCB-169		0.03	28.70	105	2.6			100	
PCB-189		0.00003	29.99	120	2.5			100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.77	117	10-145				
13C12-PCB-077		4000	22.06	119	10-145				
13C12-PCB-123		4000	23.09	115	10-145				
13C12-PCB-118		4000	23.25	114	10-145				
13C12-PCB-114		4000	23.55	112	10-145				
13C12-PCB-105		4000	23.89	111	10-145				
13C12-PCB-126		4000	25.49	107	10-145				
13C12-PCB-167		4000	26.41	99	10-145				
13C12-PCB-156/157		8000	27.03	98	10-145				
13C12-PCB-169		4000	28.69	104	10-145				
13C12-PCB-189		4000	29.98	108	10-145				
Field Spike Standards									
13C12-PCB-031				NS					
13C12-PCB-095				NS					
13C12-PCB-153				NS					
Cleanup Standards									
13C12-PCB-028		4000	15.95	92	5-145				
13C12-PCB-111		4000	22.02	74	10-145				
13C12-PCB-178		4000	25.08	69	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ				27.3					
Mid Point PCB TEQ				27.3					
Upper Bound PCB TEQ				27.3					
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
B		Indicates that this target was detected in the blank at greater than 10% of the sample concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Sample Analysis Report									
Sample Name		MARY RIVER ORG-3			Sampling Date		24-Aug-24		Sample
ALS Sample ID		L2757249-3			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
Approved: A. Kuol --e-signature-- 24-Sep-2024									
Run Information		Run 1							
Filename		5-240918A25							
Run Date		19-Sep-24 04:16							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	21.78	<26	2.2	M,J,R	26	100	
PCB-077		0.0001	22.08	3100	2.1			100	
PCB-123		0.00003	NotFnd	<8.3	8.3	U		100	
PCB-118		0.00003	23.26	59.2	7.2	M,J		100	
PCB-114		0.00003	NotFnd	<7.5	7.5	U		100	
PCB-105		0.00003	23.90	44.4	7.6	M,J		100	
PCB-126		0.1	25.50	74.0	7.6	M,J		100	
PCB-167		0.00003	26.42	10.5	5.0	M,J		100	
PCB-156/157		0.00003	27.03	52.2	6.9	M,J		200	
PCB-169		0.03	28.70	23.1	5.9	M,J		100	
PCB-189		0.00003	30.01	31.3	3.4	J		100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.78	85	10-145				
13C12-PCB-077		4000	22.07	90	10-145				
13C12-PCB-123		4000	23.08	86	10-145				
13C12-PCB-118		4000	23.25	89	10-145				
13C12-PCB-114		4000	23.55	88	10-145				
13C12-PCB-105		4000	23.89	88	10-145				
13C12-PCB-126		4000	25.49	89	10-145				
13C12-PCB-167		4000	26.41	77	10-145				
13C12-PCB-156/157		8000	27.03	73	10-145				
13C12-PCB-169		4000	28.70	77	10-145				
13C12-PCB-189		4000	29.99	83	10-145				
Field Spike Standards									
13C12-PCB-031				NS					
13C12-PCB-095				NS					
13C12-PCB-153				NS					
Cleanup Standards									
13C12-PCB-028		4000	15.96	82	5-145				
13C12-PCB-111		4000	22.02	57	10-145				
13C12-PCB-178		4000	25.08	51	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ				8.41					
Mid Point PCB TEQ				8.42					
Upper Bound PCB TEQ				8.42					
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Sample Analysis Report									
Sample Name		PORT ORG-1			Sampling Date		18-Aug-24		Sample
ALS Sample ID		L2757249-4			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
<div>Approved: A. Kuol --e-signature-- 24-Sep-2024</div>									
Run Information		Run 1							
Filename		5-240918A26							
Run Date		19-Sep-24 04:59							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	21.77	18.3	2.0	M,J		100	
PCB-077		0.0001	22.06	178	2.0			100	
PCB-123		0.00003	NotFnd	<8.7	8.7	U		100	
PCB-118		0.00003	23.25	137	7.9			100	
PCB-114		0.00003	NotFnd	<8.3	8.3	U		100	
PCB-105		0.00003	23.89	<69	8.3	J,R	69	100	
PCB-126		0.1	25.49	34.2	11	M,J		100	
PCB-167		0.00003	26.39	<4.6	4.6	M,U	4.3	100	
PCB-156/157		0.00003	27.03	26.2	6.4	M,J		200	
PCB-169		0.03	28.71	7.81	5.1	M,J		100	
PCB-189		0.00003	30.02	<8.7	3.9	M,J,R	8.7	100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.76	117	10-145				
13C12-PCB-077		4000	22.05	127	10-145				
13C12-PCB-123		4000	23.07	126	10-145				
13C12-PCB-118		4000	23.24	126	10-145				
13C12-PCB-114		4000	23.54	123	10-145				
13C12-PCB-105		4000	23.88	124	10-145				
13C12-PCB-126		4000	25.49	98	10-145				
13C12-PCB-167		4000	26.39	103	10-145				
13C12-PCB-156/157		8000	27.02	104	10-145				
13C12-PCB-169		4000	28.71	106	10-145				
13C12-PCB-189		4000	30.01	108	10-145				
Field Spike Standards									
13C12-PCB-031					NS				
13C12-PCB-095					NS				
13C12-PCB-153					NS				
Cleanup Standards									
13C12-PCB-028		4000	15.94	92	5-145				
13C12-PCB-111		4000	22.01	75	10-145				
13C12-PCB-178		4000	25.06	66	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ					3.68				
Mid Point PCB TEQ					3.69				
Upper Bound PCB TEQ					3.69				
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
B		Indicates that this target was detected in the blank at greater than 10% of the sample concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Sample Analysis Report									
Sample Name		PORT ORG-2			Sampling Date		19-Aug-24		Sample
ALS Sample ID		L2757249-5			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
<div>Approved: A. Kuol --e-signature-- 24-Sep-2024</div>									
Run Information		Run 1							
Filename		5-240918A27							
Run Date		19-Sep-24 05:41							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	21.78	34.0	2.3	M,J		100	
PCB-077		0.0001	22.07	17700	2.2			100	
PCB-123		0.00003	NotFnd	<9.9	9.9	U		100	
PCB-118		0.00003	23.26	246	9.0			100	
PCB-114		0.00003	23.55	15.8	10	M,J		100	
PCB-105		0.00003	23.90	131	9.7			100	
PCB-126		0.1	25.49	99.8	11	M,J		100	
PCB-167		0.00003	26.41	<11	5.4	M,J,R	11	100	
PCB-156/157		0.00003	27.03	52.6	7.3	M,J		200	
PCB-169		0.03	28.70	19.6	5.8	J		100	
PCB-189		0.00003	29.99	<20	4.4	M,J,R	20	100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.77	130	10-145				
13C12-PCB-077		4000	22.06	137	10-145				
13C12-PCB-123		4000	23.08	127	10-145				
13C12-PCB-118		4000	23.25	129	10-145				
13C12-PCB-114		4000	23.54	126	10-145				
13C12-PCB-105		4000	23.89	130	10-145				
13C12-PCB-126		4000	25.49	116	10-145				
13C12-PCB-167		4000	26.39	112	10-145				
13C12-PCB-156/157		8000	27.02	113	10-145				
13C12-PCB-169		4000	28.69	118	10-145				
13C12-PCB-189		4000	29.99	120	10-145				
Field Spike Standards									
13C12-PCB-031					NS				
13C12-PCB-095					NS				
13C12-PCB-153					NS				
Cleanup Standards									
13C12-PCB-028		4000	15.95	104	5-145				
13C12-PCB-111		4000	22.01	72	10-145				
13C12-PCB-178		4000	25.08	69	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ					12.4				
Mid Point PCB TEQ					12.4				
Upper Bound PCB TEQ					12.4				
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Sample Analysis Report									
Sample Name		PORT ORG-3			Sampling Date		20-Aug-24		Sample
ALS Sample ID		L2757249-6			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
Approved: A. Kuol --e-signature-- 24-Sep-2024									
Run Information		Run 1							
Filename		5-240918A28							
Run Date		19-Sep-24 06:23							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	21.81	<12	2.6	M,J,R	12	100	
PCB-077		0.0001	22.10	5090	2.3			100	
PCB-123		0.00003	NotFnd	<12	12	U		100	
PCB-118		0.00003	23.29	<72	13	J,R	72	100	
PCB-114		0.00003	NotFnd	<16	16	U		100	
PCB-105		0.00003	23.92	<44	14	M,J,R	44	100	
PCB-126		0.1	25.51	25.4	13	M,J		100	
PCB-167		0.00003	NotFnd	<4.8	4.8	U		100	
PCB-156/157		0.00003	27.03	<16	6.8	M,J,R	16	200	
PCB-169		0.03	NotFnd	<5.5	5.5	U		100	
PCB-189		0.00003	30.01	<8.2	6.5	M,J,R	8.2	100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.79	98	10-145				
13C12-PCB-077		4000	22.09	116	10-145				
13C12-PCB-123		4000	23.12	114	10-145				
13C12-PCB-118		4000	23.29	106	10-145				
13C12-PCB-114		4000	23.58	93	10-145				
13C12-PCB-105		4000	23.90	104	10-145				
13C12-PCB-126		4000	25.50	113	10-145				
13C12-PCB-167		4000	26.41	116	10-145				
13C12-PCB-156/157		8000	27.02	113	10-145				
13C12-PCB-169		4000	28.69	117	10-145				
13C12-PCB-189		4000	29.98	115	10-145				
Field Spike Standards									
13C12-PCB-031					NS				
13C12-PCB-095					NS				
13C12-PCB-153					NS				
Cleanup Standards									
13C12-PCB-028		4000	16.08	100	5-145				
13C12-PCB-111		4000	22.04	70	10-145				
13C12-PCB-178		4000	25.09	73	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ					3.05				
Mid Point PCB TEQ					3.14				
Upper Bound PCB TEQ					3.22				
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor			TEQ		Indicates the Toxic Equivalency		
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Sample Analysis Report									
Sample Name		ORG-BLANK			Sampling Date		18-Aug-24		Sample
ALS Sample ID		L2757249-7			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Sample			Percent Moisture		n/a		
Sample Matrix		Stack			Split Ratio		4		
<div>Approved: A. Kuol --e-signature-- 24-Sep-2024</div>									
Run Information		Run 1							
Filename		5-240918A22							
Run Date		19-Sep-24 02:10							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	NotFnd	<1.6	1.6	U		100	
PCB-077		0.0001	22.07	<2.8	1.7	M,J,R	2.8	100	
PCB-123		0.00003	23.09	<1.2	1.2	M,U	0.59	100	
PCB-118		0.00003	23.25	29.0	1.0	J,B		100	
PCB-114		0.00003	23.55	<1.4	1.1	J,R	1.4	100	
PCB-105		0.00003	23.89	12.0	1.1	J		100	
PCB-126		0.1	NotFnd	<1.3	1.3	U		100	
PCB-167		0.00003	NotFnd	<0.96	0.96	U		100	
PCB-156/157		0.00003	27.05	2.82	1.3	M,J		200	
PCB-169		0.03	NotFnd	<0.98	0.98	U		100	
PCB-189		0.00003	NotFnd	<0.79	0.79	U		100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.77	108	10-145				
13C12-PCB-077		4000	22.06	106	10-145				
13C12-PCB-123		4000	23.07	101	10-145				
13C12-PCB-118		4000	23.25	107	10-145				
13C12-PCB-114		4000	23.54	105	10-145				
13C12-PCB-105		4000	23.89	103	10-145				
13C12-PCB-126		4000	25.49	90	10-145				
13C12-PCB-167		4000	26.41	88	10-145				
13C12-PCB-156/157		8000	27.05	91	10-145				
13C12-PCB-169		4000	28.73	95	10-145				
13C12-PCB-189		4000	30.02	96	10-145				
Field Spike Standards									
13C12-PCB-031				NS					
13C12-PCB-095				NS					
13C12-PCB-153				NS					
Cleanup Standards									
13C12-PCB-028		4000	15.94	107	5-145				
13C12-PCB-111		4000	22.02	76	10-145				
13C12-PCB-178		4000	25.08	72	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ				0.00131					
Mid Point PCB TEQ				0.0816					
Upper Bound PCB TEQ				0.162					
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
NS		Indicates that this compound was not spiked							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
B		Indicates that this target was detected in the blank at greater than 10% of the sample concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Laboratory Method Blank Analysis Report									
Sample Name		Method Blank			Sampling Date		n/a		Method Blank
ALS Sample ID		WG3790399-1			Extraction Date		11-Sep-24		
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		Blank			Percent Moisture		n/a		
Sample Matrix		QC			Split Ratio		4		
Approved: A. Kuol --e-signature-- 24-Sep-2024									
Run Information		Run 1							
Filename		5-240918A20							
Run Date		19-Sep-24 00:46							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	NotFnd	<1.5	1.5	U		100	
PCB-077		0.0001	NotFnd	<1.5	1.5	U		100	
PCB-123		0.00003	NotFnd	<1.1	1.1	U		100	
PCB-118		0.00003	23.26	3.25	0.99	J		100	
PCB-114		0.00003	NotFnd	<1.0	1.0	U		100	
PCB-105		0.00003	23.89	<2.7	1.0	J,R	2.7	100	
PCB-126		0.1	NotFnd	<1.0	1.0	M,U		100	
PCB-167		0.00003	NotFnd	<0.69	0.69	U		100	
PCB-156/157		0.00003	NotFnd	<0.89	0.89	U		200	
PCB-169		0.03	NotFnd	<0.69	0.69	U		100	
PCB-189		0.00003	NotFnd	<1.1	1.1	U		100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.77	117	10-145				
13C12-PCB-077		4000	22.06	119	10-145				
13C12-PCB-123		4000	23.07	117	10-145				
13C12-PCB-118		4000	23.24	128	10-145				
13C12-PCB-114		4000	23.54	126	10-145				
13C12-PCB-105		4000	23.89	123	10-145				
13C12-PCB-126		4000	25.49	127	10-145				
13C12-PCB-167		4000	26.41	97	10-145				
13C12-PCB-156/157		8000	27.05	109	10-145				
13C12-PCB-169		4000	28.70	114	10-145				
13C12-PCB-189		4000	29.99	124	10-145				
Field Spike Standards									
13C12-PCB-031		0		NS					
13C12-PCB-095		0		NS					
13C12-PCB-153		0		NS					
Cleanup Standards									
13C12-PCB-028		4000	15.94	97	5-145				
13C12-PCB-111		4000	22.02	73	10-145				
13C12-PCB-178		4000	25.08	74	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ			0.0000975						
Mid Point PCB TEQ			0.0609						
Upper Bound PCB TEQ			0.122						
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Laboratory Method Blank Analysis Report									
Sample Name		Method Blank		Sampling Date		n/a		Reagent Blank	
ALS Sample ID		WG3790399-4		Extraction Date		11-Sep-24			
Analysis Method		EPA 1668C		Sample Size		1			
Analysis Type		Blank		Percent Moisture		n/a			
Sample Matrix		QC		Split Ratio		4		Approved: A. Kuol --e-signature-- 24-Sep-2024	
Run Information		Run 1							
Filename		5-240918A21							
Run Date		19-Sep-24 01:28							
Final Volume		25 ul							
Dilution Factor		1							
Analysis Units		pg							
Instrument - Column		HRMS-5 SPBOCTYL283005-06							
Target Analytes		TEF (WHO 2005)	Ret. Time	Conc. pg	EDL pg	Flags	EMPC pg	LQL	
PCB-081		0.0003	NotFnd	<1.7	1.7	U		100	
PCB-077		0.0001	NotFnd	<1.7	1.7	U		100	
PCB-123		0.00003	NotFnd	<1.4	1.4	U		100	
PCB-118		0.00003	NotFnd	<1.2	1.2	U		100	
PCB-114		0.00003	NotFnd	<1.2	1.2	U		100	
PCB-105		0.00003	NotFnd	<1.2	1.2	U		100	
PCB-126		0.1	NotFnd	<1.2	1.2	U		100	
PCB-167		0.00003	NotFnd	<0.75	0.75	U		100	
PCB-156/157		0.00003	NotFnd	<1.0	1.0	U		200	
PCB-169		0.03	NotFnd	<0.80	0.80	U		100	
PCB-189		0.00003	NotFnd	<0.79	0.79	U		100	
Extraction Standards		pg	Time	% Rec	Limits				
13C12-PCB-081		4000	21.78	100	10-145				
13C12-PCB-077		4000	22.07	101	10-145				
13C12-PCB-123		4000	23.08	98	10-145				
13C12-PCB-118		4000	23.25	105	10-145				
13C12-PCB-114		4000	23.55	105	10-145				
13C12-PCB-105		4000	23.90	106	10-145				
13C12-PCB-126		4000	25.49	109	10-145				
13C12-PCB-167		4000	26.42	99	10-145				
13C12-PCB-156/157		8000	27.05	96	10-145				
13C12-PCB-169		4000	28.70	104	10-145				
13C12-PCB-189		4000	29.99	126	10-145				
Field Spike Standards									
13C12-PCB-031		0		NS					
13C12-PCB-095		0		NS					
13C12-PCB-153		0		NS					
Cleanup Standards									
13C12-PCB-028		4000	15.95	86	5-145				
13C12-PCB-111		4000	22.03	64	10-145				
13C12-PCB-178		4000	25.09	64	10-145				
Toxic Equivalency - (WHO 2005)									
Lower Bound PCB TEQ			0.00						
Mid Point PCB TEQ			0.0725						
Upper Bound PCB TEQ			0.145						
EDL		Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.							
TEF		Indicates the Toxic Equivalency Factor				TEQ		Indicates the Toxic Equivalency	
LQL		Lower Quantification Limit, based on the lowest calibration level corrected for sample size, splits and dilutions.							
M		Indicates that a peak has been manually integrated.							
U		Indicates that this compound was not detected above the EDL.							
J		Indicates that the analyte was positively identified. The associated numerical result is an estimate.							
R		Indicates that the ion abundance ratio for this analyte did not meet the control limit. The reported value represents an estimated concentration.							
EMPC		Estimated Maximum Possible Concentration – elevated detection limit due to interference or positive id criterion failure							

ALS Life Sciences									
Laboratory Control Sample Analysis Report									
Sample Name		Laboratory Control Sample			Sampling Date		n/a		
ALS Sample ID		WG3790399-2			Extraction Date		11-Sep-24		Approved: A. Kuol --e-signature-- 24-Sep-2024
Analysis Method		EPA 1668C			Sample Size		1		
Analysis Type		LCS			Percent Moisture		n/a		
Sample Matrix		QC			Split Ratio		4		
Run Information				Run 1					
Filename				5-240918A18					
Run Date				18-Sep-24 23:21					
Final Volume				25 ul					
Dilution Factor				1					
Analysis Units				% Rec					
Instrument - Column				HRMS-5 SPBOCTYL283005-06					
Target Analytes		pg		Ret. Time	% Rec	Limits Flags			
	PCB-081	2000		21.78	96	60-135			
	PCB-077	2000		22.08	96	60-135			
	PCB-123	2000		23.09	102	60-135			
	PCB-118	2000		23.26	95	60-135			
	PCB-114	2000		23.57	99	60-135			
	PCB-105	2000		23.90	97	60-135			
	PCB-126	2000		25.50	96	60-135			
	PCB-167	2000		26.42	99	60-135			
	PCB-156/157	4000		27.05	107	60-135			
	PCB-169	2000		28.71	107	60-135			
	PCB-189	2000		30.02	99	60-135			
Extraction Standards				Time	% Rec	Limits			
	13C12-PCB-081	4000		21.77	97	40-145			
	13C12-PCB-077	4000		22.06	100	40-145			
	13C12-PCB-123	4000		23.08	99	40-145			
	13C12-PCB-118	4000		23.25	105	40-145			
	13C12-PCB-114	4000		23.55	104	40-145			
	13C12-PCB-105	4000		23.89	103	40-145			
	13C12-PCB-126	4000		25.49	113	40-145			
	13C12-PCB-167	4000		26.41	91	40-145			
	13C12-PCB-156/157	8000		27.05	86	40-145			
	13C12-PCB-169	4000		28.71	93	40-145			
	13C12-PCB-189	4000		30.01	101	40-145			
Field Spike Standards									
	13C12-PCB-031	0			NS				
	13C12-PCB-095	0			NS				
	13C12-PCB-153	0			NS				
Cleanup Standards									
	13C12-PCB-028	4000		15.94	80	15-145			
	13C12-PCB-111	4000		22.02	61	40-145			
	13C12-PCB-178	4000		25.08	59	40-145			
</									



1435 Norjohn Court, Unit 1, Burlington ON, L7L 0E6
Phone: 905-331-3111, FAX: 905-331-4567

Certificate of Analysis

ALS Project Contact: Robert Chin
ALS Project ID: WOO159
ALS WO#: L2757250
Date of Report: 17-Sep-24
Date of Sample Receipt: 3-Sep-24

Client Name: WSP Canada Inc.
Client Address: 160 Traders Blvd. E, Units 2&3
Mississauga, ON L4Z 3K7
Canada
Client Contact: Steve McClure
Client Project ID: CA0037822.0833 BAFFINLAND
INCINERATOR TESTS 2024

COMMENTS:

Mercury Analysis via CVAA using Method USEPA 7470A (KC11 16-Sep-2024)

LOR = Limit of Reporting
LCB = Laboratory Control Blank (limits: <LOR)
LCS = Laboratory Control Sample (limits: hivol, solids: 85-115%, stack: 90-110%)
MS = Matrix Spike Sample (limits: 75-125%)
RPD = Relative Percent Difference (limits: <20%)
CCV/CVS = Calibration Verification Standard (limits: 85-115%)

Certified by: _____

Robert Chin
Project Manager

Results in this certificate relate only to the samples as submitted to the laboratory.

This report shall not be reproduced, except in full, without the written permission of ALS Canada Ltd.

ALS Environmental

Sample Analysis Summary Report

Sample Name		PORT HG-1	PORT HG-2	PORT HG-3	BLANK HG	MR HG-1
ALS Sample ID		L2757250-1	L2757250-2	L2757250-3	L2757250-4	L2757250-5
Matrix		Stack	Stack	Stack	Stack	Stack
Analysis type		Sample	Sample	Sample	Sample	Sample
Sampling Date/Time		18-Aug-24	19-Aug-24	20-Aug-24	18-Aug-24	22-Aug-24
Date of Receipt		3-Sep-24	3-Sep-24	3-Sep-24	3-Sep-24	3-Sep-24
Mercury via CVAA		LOR				
	Method 29	ug	ug	ug	ug	ug
Analytical Fraction 3B		0.025	0.0672	0.215	0.194	0.442
Analytical Fraction 3C		0.25	<0.1375	<0.1375	<0.1375	<0.1375

ALS Environmental

Sample Analysis Summary Report

Sample Name		MR HG-2	MR HG-3
ALS Sample ID		L2757250-6	L2757250-7
Matrix		Stack	Stack
Analysis type		Sample	Sample
Sampling Date/Time		23-Aug-24	24-Aug-24
Date of Receipt		3-Sep-24	3-Sep-24
Mercury via CVAA			
	Method 29	LOR ug	ug
	Analytical Fraction 3B	0.025	0.294
	Analytical Fraction 3C	0.25	<0.275
			8.40
			0.182

ALS Environmental

Sample QC Summary Report

Sample Name	LCB	LCS	LCS	LCSD	LCSD
ALS Sample ID	LCB	LCS	LCS	LCSD	LCSD
Analysis type	Method Blank	Blank Spike	Blank Spike	Blank Spike Dup	Blank Spike Dup
Sampling Date/Time	N/A	N/A	N/A	N/A	N/A
Date of Receipt	N/A	N/A	N/A	N/A	N/A
Mercury via CVAA					
	Method 29	LOR			
		ug	ug	% Rec	% Rec
Analytical Fraction 3B	0.025	<0.025	0.462	92%	93%
Analytical Fraction 3C	0.25	<0.25	4.80	96%	95%

ALS Environmental

Sample QC Summary Report

Sample Name	PORT HG-1	PORT HG-1	PORT HG-1	PORT HG-1	PORT HG-1	PORT HG-1
ALS Sample ID	L2757250-1	L2757250-1DUP	L2757250-1MS	L2757250-1MS	L2757250-1MSD	L2757250-1MSD
Matrix	Stack	Stack	Stack	Stack	Stack	Stack
Analysis type	Sample	Duplicate	Matrix Spike	Matrix Spike	Matrix Spike Dup	Matrix Spike Dup
Sampling Date/Time	18-Aug-24	18-Aug-24	18-Aug-24	18-Aug-24	18-Aug-24	18-Aug-24
Date of Receipt	3-Sep-24	3-Sep-24	3-Sep-24	3-Sep-24	3-Sep-24	3-Sep-24
Mercury via CVAA						
	Method 29	LOR ug	ug	ug	% Rec	ug % Rec
	Analytical Fraction 3B	0.025	0.0672	0.0672	92%	0.721 93%
	Analytical Fraction 3C	0.250	<0.1375	<0.1375	94%	2.61 95%



Sample Receipt Confirmation

7 Samples received at ALS in BURLINGTON

Job Reference #: CA0037822.0833 BAFFINLAND
INCINERATOR TESTS 2024

Project PO #: N/A

Legal Site Description: N/A

Quote #: N/A

Lab Work Order #: L2757249

Estimated Completion Date: 9/25/2024

Date Sampled: 8/18/2024

Date Received: 9/3/2024

Sampled By: Client

Chain of Custody: N/A

Account Manager: Robert Chin, B.Sc.

Estimated Sample Disposal Date: See Sample Disposal Information section below.

Sample Integrity Observations: No observations were identified for this work order submission.

Report Distribution:

Company Name: WSP Canada Inc.

Contact: Steve McClure

Address: 160 Traders Blvd. E, Units 2&3
Mississauga, ON L4Z 3K7

Phone: 905-568-2929

Fax: 905-568-1686

Email: robert.chin@alsglobal.com

EDD Email: --

Distribution: **Hard Copy:** N **Email:** Y **Fax:** N
EDD: N

Invoice Distribution:

Acct Name: WSP Canada Inc.

Contact: ACCOUNTS PAYABLE

Address: 160 Traders Blvd. E, Units 2&3,
Mississauga, ON, L4Z 3K7

Phone: 905-568-2929

Fax: 905-568-1686

Invoice Email: capayablesinvoice@wsp.com
steve.mcclure@wsp.com

Project #: N/A

Account #: W00159

Distribution: **Hard Copy:** Y **Email:** Y

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L2757249-1	MARY RIVER ORG-1	8/22/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack
L2757249-2	MARY RIVER ORG-2	8/23/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack
L2757249-3	MARY RIVER ORG-3	8/24/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack
L2757249-4	PORT ORG-1	8/18/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack
L2757249-5	PORT ORG-2	8/19/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack
L2757249-6	PORT ORG-3	8/20/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack
L2757249-7	ORG-BLANK	8/18/2024 12:00 AM	9/3/2024 2:00 PM	9/25/2024 11:00 PM		Stack

ADDRESS: 1435 Norjohn Court, Unit 1, Burlington, ON, L7L 0E6 Canada | Phone: +1 905 331 3111 | Fax: +1 905 331 4567

ALS CANADA LTD Part of the ALS Group An ALS Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



Sample Receipt Confirmation

**Analysis
Requested:**

	Sample Handling and Disposal Fee	PCDD/F via EPA Method 23	WHO TOXIC PCB Congeners
MARY RIVER ORG-1	X	X	X
MARY RIVER ORG-2	X	X	X
MARY RIVER ORG-3	X	X	X
PORT ORG-1	X	X	X
PORT ORG-2	X	X	X
PORT ORG-3	X	X	X
ORG-BLANK	X	X	X



Sample Receipt Confirmation

Sample Disposal Information:

Where possible, ALS will store samples for the following durations, measured from date of sample submission: 45 days for Soil and Water samples; 6 months for Tissue/Biota samples; 14 days for air samples collected on re-usable media; and 3 days for water samples submitted for microbiological testing. Longer storage times are available upon request.

For information about ALS accreditations and certifications please contact your Account Manager or visit our webpage at www.alsglobal.com (see Canada downloads).

ALS Group strives to deliver on-time results to our clients at all times. However, there are times when due to capacity issues or other unforeseen circumstances we are unable to meet our expected turnaround times. The information above is related to a recent workorder you have submitted to our laboratory. In the event that you have an inquiry, please refer to the Lab Work Order # L2757249 when calling your Account Manager.

ALS Group appreciates your business. Thank you for the opportunity to work with you.

WSP Canada Inc
160 Traders Blvd. E., Unit 2&3, Mississauga, Ontario
L4Z 3K7, (905) 568-2929

Request for Analysis: WSP Air Quality

Comments:

This work order is governed by the terms and conditions of Agreement

ALS No. #Sud-039. No other terms and conditions apply.

Pricing is per standard agreement.

Send results to steve.mcclure@wsp.com

Please see attached Analytes List.

Project # CA0037822.0833		Contact: Steve McClure		Send results to steve.mcclure@wsp.com		Dioxin/Furans/DLPCBs		
Project Name: Baffinland incinerator Tests 2024		Please see attached Analytes List.						
Lab Use Only	Sample Number	Sample Identification	Date	Type	Amount Collected			
	Mary River ORG-1	Filter	22-Aug-24	Filter		X		
	Mary River ORG-1	FH H/A	22-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-1	Imp Conts	22-Aug-24	50% Eth.Glyc	<950ml			
	Mary River ORG-1	Cond H/A	22-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-1	Final H/A	22-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-1	XAD Resin	22-Aug-24	Resin				
	Mary River ORG-2	Filter	23-Aug-24	Filter		X		
	Mary River ORG-2	FH H/A	23-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-2	Imp Conts	23-Aug-24	50% Eth.Glyc	<950ml			
	Mary River ORG-2	Cond H/A	23-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-2	Final H/A	23-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-2	XAD Resin	23-Aug-24	Resin				
	Mary River ORG-3	Filter	24-Aug-24	Filter	2	X		
	Mary River ORG-3	FH H/A	24-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-3	Imp Conts	24-Aug-24	50% Eth.Glyc	<950ml			
	Mary River ORG-3	Cond H/A	24-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-3	Final H/A	24-Aug-24	Hexane/Acetone	<250ml			
	Mary River ORG-3	XAD Resin	24-Aug-24	Resin				

Authorized Signature: _____

Date: _____ Time: _____

Received at Lab By: Alexandra Bortea

Date: 3-Sept-2024 Time: 14:00 6.0°C



L2757249-COFC

WSP Canada Inc
160 Traders Blvd. E., Unit 2&3, Mississauga, Ontario
L4Z 3K7, (905) 568-2929

Request for Analysis: WSP Air Quality

Project # CA0037822.0833		Contact: Steve McClure		Comments: This work order is governed by the terms and conditions of Agreement ALS No. #Sud-039. No other terms and conditions apply. Pricing is per standard agreement. Send results to steve.mcclure@wsp.com Please see attached Analytes List.		Dioxin/Furans/DLPCBs		
Project Name: Baffinland Incinerator Tests 2024								
Lab Use Only	Sample Number	Sample Identification	Date	Type	Amount Collected			
	Port ORG-1	Filter	18-Aug-24	Filter		X		
	Port ORG-1	FH H/A	18-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-1	Imp Conts	18-Aug-24	50% Eth.Glyc	<950ml			
	Port ORG-1	Cond H/A	18-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-1	Final H/A	18-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-1	XAD Resin	18-Aug-24	Resin				
	Port ORG-2	Filter	19-Aug-24	Filter	2	X		
	Port ORG-2	FH H/A	19-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-2	Imp Conts	19-Aug-24	50% Eth.Glyc	<950ml			
	Port ORG-2	Cond H/A	19-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-2	Final H/A	19-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-2	XAD Resin	19-Aug-24	Resin				
	Port ORG-3	Filter	20-Aug-24	Filter	2	X		
	Port ORG-3	FH H/A	20-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-3	Imp Conts	20-Aug-24	50% Eth.Glyc	<950ml			
	Port ORG-3	Cond H/A	20-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-3	Final H/A	20-Aug-24	Hexane/Acetone	<250ml			
	Port ORG-3	XAD Resin	20-Aug-24	Resin				
	ORG-BLANK	Filter	18-Aug-24	Filter		X		
	ORG-BLANK	FH H/A	18-Aug-24	Hexane/Acetone	<250ml			
	ORG-BLANK	Imp Conts	18-Aug-24	50% Eth.Glyc	<950ml			
	ORG-BLANK	Condenser H/A	18-Aug-24	Hexane/Acetone	<250ml			
	ORG-BLANK	Final H/A	18-Aug-24	Hexane/Acetone	<250ml			
	ORG-BLANK	XAD Resin	18-Aug-24	Resin				

Authorized Signature: _____
Received at Lab By: ARRA Burtar

Date: _____ Time: _____
Date: 3 Sept-2024 Time: 14:00 8.0°C



L2757249-COFC



Sample Receipt Confirmation

7 Samples received at ALS in BURLINGTON

Job Reference #: CA0037822.0833 BAFFINLAND
INCINERATOR TESTS 2024

Project PO #: N/A

Legal Site Description: N/A

Quote #: N/A

Lab Work Order #: L2757250

Estimated Completion Date: 9/18/2024

Date Sampled: 8/18/2024

Date Received: 9/3/2024

Sampled By: Client

Chain of Custody: N/A

Account Manager: Robert Chin, B.Sc.

Estimated Sample Disposal Date: See Sample Disposal Information section below.

Sample Integrity Observations: No observations were identified for this work order submission.

Report Distribution:

Company Name: WSP Canada Inc.

Contact: Steve McClure

Address: 160 Traders Blvd. E, Units 2&3
Mississauga, ON L4Z 3K7

Phone: 905-568-2929

Fax: 905-568-1686

Email: robert.chin@alsglobal.com

EDD Email: --

Distribution: **Hard Copy:** N **Email:** Y **Fax:** N
EDD: N

Invoice Distribution:

Acct Name: WSP Canada Inc.

Contact: ACCOUNTS PAYABLE

Address: 160 Traders Blvd. E, Units 2&3,
Mississauga, ON, L4Z 3K7

Phone: 905-568-2929

Fax: 905-568-1686

Invoice Email: capayablesinvoice@wsp.com
steve.mcclure@wsp.com

Project #: N/A

Account #: W00159

Distribution: **Hard Copy:** Y **Email:** Y

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L2757250-1	PORT HG-1	8/18/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack
L2757250-2	PORT HG-2	8/19/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack
L2757250-3	PORT HG-3	8/20/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack
L2757250-4	BLANK HG	8/18/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack
L2757250-5	MR HG-1	8/22/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack
L2757250-6	MR HG-2	8/23/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack
L2757250-7	MR HG-3	8/24/2024 12:00 AM	9/3/2024 2:00 PM	9/18/2024 11:00 PM		Stack

ADDRESS: 1435 Norjohn Court, Unit 1, Burlington, ON, L7L 0E6 Canada | Phone: +1 905 331 3111 | Fax: +1 905 331 4567

ALS CANADA LTD Part of the ALS Group An ALS Limited Company



Sample Receipt Confirmation

**Analysis
Requested:**

	Sample Handling and Disposal Fee	Method 29 Mercury Fraction 3B	Method 29 Mercury Fraction 3C
PORT HG-1	X	X	X
PORT HG-2	X	X	X
PORT HG-3	X	X	X
BLANK HG	X	X	X
MR HG-1	X	X	X
MR HG-2	X	X	X
MR HG-3	X	X	X



Sample Receipt Confirmation

Sample Disposal Information:

Where possible, ALS will store samples for the following durations, measured from date of sample submission: 45 days for Soil and Water samples; 6 months for Tissue/Biota samples; 14 days for air samples collected on re-usable media; and 3 days for water samples submitted for microbiological testing. Longer storage times are available upon request.

For information about ALS accreditations and certifications please contact your Account Manager or visit our webpage at www.alsglobal.com (see Canada downloads).

ALS Group strives to deliver on-time results to our clients at all times. However, there are times when due to capacity issues or other unforeseen circumstances we are unable to meet our expected turnaround times. The information above is related to a recent workorder you have submitted to our laboratory. In the event that you have an inquiry, please refer to the Lab Work Order # L2757250 when calling your Account Manager.

ALS Group appreciates your business. Thank you for the opportunity to work with you.



L2757250-COFC

WSP Canada Inc
160 Traders Blvd. E., Unit 2&3, Mississauga, Ontario
L4Z 3K7, (905) 568-2929

Request for Analysis: WSP Air Quality

Project # CA0037822.0833		Contact: Steve McClure		Comments: This work order is governed by the terms and conditions of Agreement ALS No. #Sud-039. No other terms and conditions apply. Pricing is per standard agreement. Send results to steve.mcclure@wsp.com Please see attached Analytes List.					
Project Name: Baffinland incinerator Tests 2024									
Lab Use Only	Sample Number	Sample Identification	Date	Type	Amount Collected	Mercury			
	Port Hg-1	Imp Contents	18-Aug-24	4%KMnO4/10%H2SO4		X			
	Port Hg-1	HCl Rinse	18-Aug-24	8N HCl		X			
	Port Hg-2	Imp Contents	19-Aug-24	4%KMnO4/10%H2SO4		X			
	Port Hg-2	HCl Rinse	19-Aug-24	8N HCl		X			
	Port Hg-3	Imp Contents	20-Aug-24	4%KMnO4/10%H2SO4		X			
	Port Hg-3	HCl Rinse	20-Aug-24	8N HCl		X			
	Blank Hg	Imp Contents	18-Aug-24	4%KMnO4/10%H2SO4		X			
	Blank Hg	HCl Rinse	18-Aug-24	8N HCl		X			
	MR Hg-1	Imp Contents	22-Aug-24	4%KMnO4/10%H2SO4		X			
	MR Hg-1	HCl Rinse	22-Aug-24	8N HCl		X			
	MR Hg-2	Imp Contents	23-Aug-24	4%KMnO4/10%H2SO4		X			
	MR Hg-2	HCl Rinse	23-Aug-24	8N HCl		X			
	MR Hg-3	Imp Contents	24-Aug-24	4%KMnO4/10%H2SO4		X			
	MR Hg-3	HCl Rinse	24-Aug-24	8N HCl		X			

Prepared by: _____

Date: _____

Reviewed by: _____

Date: _____

Received at Lab By: Anna BurtonDate: 3-sept-2024 14:00 20.0°C

Appendix C

Raw Sampling Data

WSP E&I Canada Ltd.

TEST NO.: MR-Eco-ORG-1

JOB NUMBER:

0AQS 2211.1000

STACK DIAMETER:

DATE:

3 Dec 2022

COMPANY:

Bathin land

SOURCE:

Mary River Ecowaste

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	100ml Resin E/Gly	546	569	
IMPINGER 2	50ml E.Gl	711	723	
IMPINGER 3	Blank	659	661	
IMPINGER 4	SG	817	829	
IMPINGER 5				
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				
	Filter ID	Filter Tare, g		Filter Final, g
FILTER				

NOTES:

XAD - 313

wsp

JOB NUMBER:	0AQS2211
DATE:	Dec. 3
COMPANY:	Boffing
SOURCE:	Ecowille Mary River
TEST NO.:	ONG-1
STARTUP TIME:	11:45
	FINISH TIME: 14:15

ASSUMED MOISTURE VOL. %:	4
NOZZLE DIAMETER (INCHES):	0.375
PITOT COEFFICIENT:	0.87
POTENTIAL BOX (NAME, pH, GAMMA):	E8#4 8-1013 14 2.60
GAS COMPOSITION:	
CO2%	0.2% 16
SO2%:	

GAS COMPOSITION: CO₂%

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	271.20	0.06	0.248	1267		46	46	260	55	4	20.94	-0.01
5	272.86	0.06	0.49	1275		38	45	254	55	4	13.31	5.43
10	274.43	0.065	0.57	1284		38	44	256	57	4	12.91	5.40
15	276.06	0.064	0.50	1305		38	44	256	57	4	12.77	5.6
20	277.65	0.066	0.51	1310		35	44	251	57	4	12.46	5.8
25	279.26	0.05	0.40	1302		40	44	250	60	4	13.22	5.2
30	280.72	0.045	0.38	1295		42	44	247	51	4	14.07	4.5
35	282.14	0.046	0.39	1285		44	45	258	54	4	12.87	5.5
40	283.58	0.055	0.45	1300		46	46	258	57	4	13.77	4.8
45	285.13	0.061	0.50	1295		46	47	260	53	4	12.96	5.5
50	286.77	0.061	0.50	1294		46	48	262	55	4	12.94	5.4
55	288.40	0.10	0.75	1326		45	47	255	68	4	12.11	6.0
60	290.36	0.10	0.75	1393		44	47	255	64	4	17.02	6.0
65	292.36	0.098	0.74	1397		44	47	254	67	6	12.01	6.05
70	294.34	0.095	0.71	1377		44	47	254	67	20	12.16	6.0
75	295.78	0.088	0.15	1392		44	47	254	64	25	12.18	6.1
80	297.75	0.085	0.20	1420		45	47	246	52	21		
85	298.85	0.076	0.10	1411		45	47	251	55	22		
90	299.85	0.076	0.18	1409		45	47	251	52	4	16.8	3.2
95	301.61	0.088	0.69	1378		41	46	256	53	8	13.7	5.4
100	303.48	0.093	0.70	1378		42	46	260	52	7	13.67	5.3
105	305.41	0.093	0.70	1397		43	46	260	50	7	13.7	5.3
110	307.35	0.095	0.21	1372		44	47	261	50	7	13.7	5.3
115	309.30	0.091	0.70	1397		44	46	248	53	7	13.8	5.2
120	311.25	0.085	0.63	1408		44	46	257	56	6	13.8	5.1

CONSOLE OPERATOR:

4



ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: _____ DATE: _____ COMPANY: _____ SOURCE: _____ TEST NO.: 026-1 STARTUP TIME: 14:15 FINISH TIME: 16:15

STATIC PRESSURE (IN H2O): _____ BAR, P. ("HG): _____ ASSUMED MOISTURE VOL. %: _____ NOZZLE DIAMETER (INCHES): _____ PITOT COEFFICIENT: _____ CONTROL BOX (NAME, dH, GAMMA): _____ GAS COMPOSITION: _____ CO2%: _____ O2%: _____ SO2%: _____

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP of XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
5	313.09	0.077	0.58	1416	1	44	46	204	57	5	13.94	5.1 2.7
10	314.84	0.080	0.60	1411		44	46	204	57	5	14.10	4.9 2.7
15	316.64	0.082	0.51	1426		46	47	215	56	7	14.2	4.9 2.9
20	318.33	0.065	0.49	1418		47	47	204	55	5	14.14	4.9 2.7
25	311.97	0.061	0.47	1420		47	47	215	52	5	14.18	4.9 2.9
30	321.56	0.054	0.41	1424		47	47	215	50	5	14.24	4.8 2.4
35	323.07	0.057	0.43	1424		50	49	215	49	5	14.25	4.8 2.5
40	324.61	0.057	0.42	1418		51	40	215	50	5	14.38	4.7 2.5
45	326.14	0.053	0.42	1412		54	51	215	55	5	14.5	4.7 3.0
50	327.68	0.055	0.41	1403		55	52	214	53	5	14.6	4.6 2.6
55	329.26	0.058	0.45	1395		55	52	214	52	5	14.6	4.6 2.7
60	330.85	0.060	0.47	1387		55	53	215	55	6	14.6	4.6 2.5
65	332.46	0.06	0.42	1385		55	53	215	55	6	14.6	4.6 3.0
70	333.99	0.056	0.43	1400		56	55	215	58	6	14.6	4.6 2.8
75	335.55	0.056	0.43	1401		56	55	215	58	6	14.6	4.6 2.8
80	337.10	0.072	0.55	1417		56	55	215	58	8	14.60	4.8 2.7
85	338.70	0.063	0.49	1414		57	56	214	56	8	13.63	5.2 2.7
90	340.35	0.059	0.47	1399		57	56	215	60	8	14.6	4.5 2.6
95	342.01	0.063	0.49	1418		57	57	215	60	8	13.9	5.0 2.6
100	343.60	0.054	0.42	1410		57	57	215	60	8	14.5	4.6 2.6
105	345.09	0.062	0.49	1412		57	57	215	57	8	13.87	5.1 2.2
110	346.71	0.058	0.45	1400		57	57	215	61	8	14.7	4.5 2.4
115	348.25	0.058	0.45	1402		56	57	215	55	8	14.4	4.7 2.5
120	349.95											

INITIAL L.C.: _____ @ _____ "Hg
FINAL L.C.: 0.001 @ 10 "Hg

CONSOLE OPERATOR: AB

2 OF 4

WSP

WSP E&I Canada Ltd.

TEST NO.:

MR - Eco Vark ORG-2

JOB NUMBER:

DAQS 2211.1000

STACK DIAMETER:

DATE:

Dec. 6

COMPANY:

Baffinland

SOURCE:

MR Eco Vark

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	Resin	536	660	
IMPINGER 2	100 ml E/G	764	778	
IMPINGER 3	Blank	660	663	
IMPINGER 4	SG	977	993	
IMPINGER 5				
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				
	Filter ID	Filter Tare, g		Filter Final, g
FILTER				

NOTES:

XAD - L273724-7

wsp

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: 04QS 2211
 DATE: Dec-6
 COMPANY: Battilana
 SOURCE: M.R. Ecolustic
 TEST NO.: 026-2
 STARTUP TIME: 9:04 FINISH TIME: 11:04

STATIC PRESSURE (IN H2O): -0.09 BAR. P. ("HG): 27.35
 ASSUMED MOISTURE VOL. %: 5
 NOZZLE DIAMETER (INCHES): 0.50
 PITOT COEFFICIENT: 0.84
 CONTROL BOX (NAME, dH, GAMMA): BA-4
 GAS COMPOSITION: CO2%: 15 O2%: 15 SO2%: 15

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	4MP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	350.24	0.057	1.4	1276		42	43	215	43	10	21.0	603 0.6
5	353.05	0.056	1.4	1279		40	43	210	45	11	14.76	4.9 1.7
10	355.79	0.057	1.4	1273		41	43	200	47	12	14.65	4.8 2.5
15	358.51	0.057	1.4	1290		42	43	200	49	12	14.53	4.8 1.3
20	361.24	0.057	1.4	1291		42	43	210	52	12	14.28	4.8 1.3
25	363.98	0.056	1.4	1296		47	45	200	53	13	14.31	4.8 1.7
30	366.73	0.053	1.4	1296		49	47	210	54	13	14.4	4.8 1.1
35	369.39	0.053	1.4	1297		45	47	210	57	13	14.61	4.8 1.7
40	372.22	0.054	1.4	1300		42	49	210	57	13	14.61	4.8 1.5
45	374.95	0.056	1.4	1300		43	50	200	57	13	14.69	4.8 1.5
50	377.77	0.056	1.4	1301		44	51	200	59	13	14.71	4.8 1.8
55	380.70	0.054	1.8	1305		54	52	251	60	16	14.75	4.8 1.8
60	383.44	0.074	1.8	1411		56	53	210	61	16	13.28	5.9 1.2
65	386.53	0.075	1.8	1402		56	54	210	61	16	13.71	5.8 1.1
70	389.61	0.074	1.8	1410		56	54	200	64	16	13.47	5.8 1.6
75	392.70	0.077	1.9	1425		56	54	200	65	17	13.26	5.9 1.6
80	395.86	0.077	1.9	1422		55	55	200	64	17	13.36	5.8 1.5
85	399.02	0.075	1.8	1419		54	55	200	67	17	13.32	5.8 1.6
90	402.13	0.076	1.8	1420		55	55	200	67	17	13.4	5.8 1.6
95	405.24	0.078	1.8	1420		54	55	200	65	17	13.4	5.8 1.7
100	408.35	0.076	1.8	1424		55	55	200	65	17	13.5	5.7 1.8
105	411.45	0.080	1.9	1411		55	55	200	66	19	13.8	5.5 2.2
110	414.61	0.075	1.8	1416		54	55	200	66	19	13.7	5.5 1.5
115	417.76	0.075	1.8	1421		54	55	200	66	19	13.8	5.4 2.1
120	420.86	0.075	1.8	1420		54	55	200	66	19	13.9	5.3 2.2

INITIAL L.C.: 0.0001 @ 20 "Hg
 FINAL L.C.: 0.0001 @ 20 "Hg
 CONSOLE OPERATOR: A2 1 OF 4

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER:

DATE:

COMPANY:

SOURCE:

TEST NO.:

STARTUP TIME:

STATIC PRESSURE (IN H2O):

ASSUMED MOISTURE VOL. %:

NOZZLE DIAMETER (INCHES):

PITOT COEFFICIENT:

CONTROL BOX (NAME, dH, GAMMA):

GAS COMPOSITION:

BAR. P. ("HG):

0.06-2

11:04

13:20

CO2%

O2%

CO2%

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP of XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
5	424.07	0.073	1.8	1418		53	54	210	65	20	13.93	5.3 2.5
10	427.13	0.071	1.8	1389		54	55	210	63	13	14.98	4.7 2.3
15	430.21	0.073	1.8	1350		53	54	238	62	13	13.75	5.2 2.0
20	433.32	0.073	1.8	1396		55	54	243	61	17	14.6	4.8 2.3
25	436.46	0.077	1.7	1402		55	54	240	61	15	14.0	5.2 2.7
30	439.60	0.071	1.7	1396		56	55	240	60	14	14.5	4.8 2.1
35	442.72	0.076	1.8	1406		56	55	240	60	15	14.5	4.8 2.3
40	445.85	0.076	1.8	1407		56	55	240	60	14	14.6	4.7 2.1
45	448.97	0.077	1.8	1409		55	54	240	60	15	14.7	4.9 2.4
50	452.08	0.071	1.7	1397		55	54	240	60	15	14.2	5.0 2.4
55	455.19	0.078	1.8	1409		55	54	230	60	15	14.6	4.7 2.5
60	458.31	0.072	1.7	1400		55	54	230	60	15	14.1	5.06 2.2
65	461.44	0.079	1.9	1402		55	54	230	60	15	14.6	4.7 2.3
70	464.60	0.071	1.7	1400		55	54	210	69	14	14.2	5.0 2.7
75	467.64	0.076	1.8	1407		55	54	230	59	14	14.7	4.6 2.2
80	470.73	0.072	1.7	1402		55	54	230	59	14	14.1	5.1 2.2
85	473.80	0.076	1.8	1407		55	54	230	59	14	14.8	4.7 2.3
90	476.87	0.074	1.8	1400		55	54	230	59	14	13.8	5.3 2.1
95	479.97	0.077	1.9	1403		55	54	230	58	14	14.9	4.5 2.3
100	483.12	0.072	1.7	1400		54	54	230	58	14	14.0	5.2 2.2
105	486.24	0.077	1.9	1402		54	54	230	58	14	14.8	4.7 2.1
110	489.36	0.073	1.8	1399		53	53	230	57	14	13.97	5.2 1.9
115	492.48	0.078	1.8	1404		53	54	230	57	14	14.8	4.7 2.0
120	495.54											

stopped @ 11:14
start @ 11:20

INITIAL L.C.:

FINAL L.C.:

@ 0.001 @

"Hg 15"

CONSOLE OPERATOR:

42

2 OF 4

1151

WSP E&I Canada Ltd.

TEST NO.:

PORT-ORG-1

JOB NUMBER:

0AQS 2211.1000

STACK DIAMETER:

DATE:

Nov. 23, 2022

COMPANY:

Baffinland

SOURCE:

Eco Wista

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	Resin	529	595	
IMPINGER 2	100ml Glycol	765	766	
IMPINGER 3	Blank	631	631	
IMPINGER 4	SC	787	800	
IMPINGER 5				
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				
	Filter ID	Filter Tare, g		Filter Final, g
FILTER				

NOTES:

XAP 313

wsp

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: 04082211
 DATE: Nov. 28
 COMPANY: Burklin
 SOURCE: EcoVaste
 TEST NO.: 016-2
 STARTUP TIME: 10:24 FINISH TIME: 12:04

STATIC PRESSURE (IN H2O): -0.12 BAR, P. ("HG): 29.63
 ASSUMED MOISTURE VOL. %: 6
 NOZZLE DIAMETER (INCHES): 0.4375
 PITOT COEFFICIENT: 0.84
 CONTROL BOX (NAME, dH, GAMMA): ES#4 dH 2.667 R-1.013
 GAS COMPOSITION: CO2% 4.6 O2% 15 SO2% 0

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	95.44	0.097	1.5	1080		37	37	210	42	9	21.09	0.4 / 0
5	98.20	0.097	1.5	1079		32	37	210		10	15.15	5.03 / 1.0
10	100.25	0.097	1.5	1090		32	32	210		10	15.08	5.1 / 0.3
15	103.55	0.096	1.5	1078		32	36	210		12	15.18	4.91 / 0.5
20	106.32	0.095	1.5	1074		33	36	210		12	15.26	7.8 / 1.3
25	109.06	0.095	1.5	1073		35	36	210		12	15.28	4.79 / 1.1
30	111.81	0.094	1.5	1072		35	36	210		13	15.30	4.70 / 1.4
35	114.43	0.093	1.6	1056		35	36	210		14	15.45	4.5 / 1.2
40	117.48	0.096	1.5	1072		37	36	210		14	15.15	4.45 / 0.7
45	120.28	0.099	1.6	1085		37	36	210		14	15.4	4.41 / 1.8
50	123.11	0.096	1.6	1071		32	36	210		14	15.5	4.39 / 1.0
55	125.95	0.097	1.6	1064		32	36	210		15	15.66	4.30 / 2.2
60	128.75	0.098	1.3	1011		32	36	210		13	16.20	3.9 / 0.4
65	131.39	0.082	1.3	1024		32	34	210		13	16.15	3.95 / 1.4
70	134.00	0.087	1.4	1024		30	33	210		13	16.16	4.01 / 1.7
75	136.66	0.085	1.4	1011		30	31	210		13	16.19	4.01 / 2.3
80	139.34	0.086	1.4	1018		31	31	210		14	16.20	4.01 / 0.7
85	142.00	0.086	1.4	1011		32	31	250		14	16.22	4.01 / 1.6
90	144.67	0.086	1.4	1021		32	31	210		14	16.37	3.9 / 1.5
95	147.31	0.086	1.4	1014		33	32	250	47	14	16.38	3.9 / 2.5
100	149.95	0.085	1.4	1020		33	32	210	47	14	16.43	3.8 / 1.7
105	152.57	0.084	1.4	1033		35	32	210		15	16.48	3.8 / 1.8
110	155.16	0.085	1.4	1039		36	33	210		15	15.10	4.95 / 1.9
115	157.74	0.082	1.4	1022		37	33	210		15	16.32	3.99 / 1.5
120	160.31											

Primary burner
 12 set

INITIAL L.C.: 0.001 @ 15 "Hg
 FINAL L.C.: 0.001 @ 15 "Hg
 CONSOLE OPERATOR: AE
 1 OF 4

WSP

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: NOV. 28, 2002 BAR P. ("HG): _____
 DATE: Nov 28, 2002
 COMPANY: Battlin
 SOURCE: Beowake
 TEST NO.: ORC-1 TRAV-2
 STARTUP TIME: 12:18 FINISH TIME: 13:04
 STATIC PRESSURE (IN H2O): _____
 ASSUMED MOISTURE VOL. %: _____
 NOZZLE DIAMETER (INCHES): _____
 PITOT COEFFICIENT: _____
 CONTROL BOX (NAME, dH, GAMMA): _____
 GAS COMPOSITION: _____ CO2%: _____ SO2%: _____

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	160.31	0.097	0.8	1088		34	34	210	40	25	21.01	0.0
5	162.37	0.098	0.6	1078		34	34	200		25	16.26	4.08
10	164.09	0.101	0.55	1077		37	34	200	41	26	16.40	4.01
15	165.97	0.094	0.40	1079		29	33	200	44	27	16.13	4.07
20	166.56	0.098	0.25	1081		30	33	275	45	22	16.76	4.0
25	167.43	0.098	0.13	1084		29	32	275	47	27	16.18	3.94
30	168.14	0.099	0.09	1080		24	31	275	49	27	16.41	3.96
35	168.85	0.101	0.12	1085		29	31	275	50	27	16.48	3.88
3	169.27					29	31	275	53	23	16.65	3.85
45	169.64											
50												
55												
60												
65												
70												
75												
80												
85												
90												
95												
100												
105												
110												
115												
120												

At max out

Stopped at 13:04

1151

INITIAL L.C.: 6.0001 @ 25 "Hg
 FINAL L.C.: 42 OF 2 4
 CONSOLE OPERATOR: 42

WSP E&I Canada Ltd.

TEST NO.:

Port - OAG-2

JOB NUMBER:

OAGS 2211.1000

STACK DIAMETER:

DATE:

Nov. 29, 2022

COMPANY:

Battalion Ltd

SOURCE:

Eco Waste

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	Resin	553	603	
IMPINGER 2	100ml Eth. Gly	772	779	
IMPINGER 3	Blank	632	633	
IMPINGER 4	SG	800	821	
IMPINGER 5				
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				

	Filter ID	Filter Tare, g	Filter Final, g
FILTER			

NOTES:

2 Filters

wsp

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: 0A082211
 DATE: Nov 29, 2022
 COMPANY: Baffin
 SOURCE: FEOWISTE P.O.T
 TEST NO.: 0R6-2
 STARTUP TIME: 9:33 FINISH TIME: 10:35

STATIC PRESSURE (IN H2O): -2.09 BAR. P. (HG): 29.66
 ASSUMED MOISTURE VOL. %: 6.375
 NOZZLE DIAMETER (INCHES): 0.875
 PITOT COEFFICIENT: 0.84
 CONTROL BOX (NAME, dH, GAMMA): ES#4 R=1013
 GAS COMPOSITION: CO2% 4.6 O2% 15 SO2% 0

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	171.58	0.10	0.86	1043		34	34	265	58	5	21.22	0.04 1.1
5	173.70	0.10	0.86	1048		30	37	261	53	5	15.32	5.00 0.9
10	175.78	0.10	0.86	1062		30	33	261	56	6	11.4	5.01 1.4
15	177.86	0.10	0.86	1064		31	33	265	57	6	14.45	4.98 1.5
20	179.95	0.10	0.88	1035		32	33	265	58	6	14.45	4.97 1.4
25	182.04	0.10	0.88	1044		34	33	265	58	7	14.12	4.4 1.5
30	184.14	0.10	0.88	1054		34	33	265	59	7	14.13	4.4 1.8
35	186.25	0.10	0.88	1072		29	32	265	62	7	14.27	4.4 1.9
40	188.36	0.098	0.86	1047		30	32	265	61	7	14.64	4.86 0.9
45	190.44	0.098	0.86	1053		31	30	265	61	7	14.88	4.8 1.5
50	192.50	0.10	0.88	1035		32	30	265	62	8	15.07	4.8 0.8
55	194.61	0.098	0.86	1042		34	31	264	63	8	15.11	4.8 2.0
60	196.69	0.098	0.86	1042		35	31	264	63	8	15.33	4.74 1.0
65	198.78	0.098	0.83	1038		38	31	267	64	8	15.34	4.7 1.2
70	200.83	0.104	0.81	1025		33	32	265	66	7	15.15	4.9 1.6
75	202.94	0.107	0.88	1064		33	31	225	65	7	15.43	4.4 1.2
80	205.13	0.099	0.86	1050		33	31	225	65	8	15.4	4.8 1.8
85	207.25	0.099	0.86	1049		33	31	246	65	8	15.69	4.5 2.0
90	209.35	0.084	0.75	1001		33	31	142	66	10	16.04	4.2 1.1
95	211.33	0.083	0.71	985		35	32	230	65	10	16.36	3.9 1.3
100	213.30	0.078	0.71	948		36	31	255	64	10	16.36	3.9 1.9
105	215.20	0.080	0.73	942		36	31	255	64	10	16.50	3.81 1.6
110	217.11	0.081	0.73	940		32	33	255	64	10	16.57	3.8 1.8
115	219.04	0.078	0.89	997		32	33	255	64	14	16.72	3.7 2.0
120	221.17											

INITIAL L.C.: 2.001 @ 15 "Hg
 FINAL L.C.: 2.001 @ 15 "Hg
 CONSOLE OPERATOR: A2
 1 OF 4

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER:

DATE:

COMPANY:

SOURCE:

TEST NO.:

STARTUP TIME:

STATIC PRESSURE (IN H2O):

ASSUMED MOISTURE VOL. %:

NOZZLE DIAMETER (INCHES):

PITOT COEFFICIENT:

CONTROL BOX (NAME, dH, GAMMA):

GAS COMPOSITION:

BAR. P. ("HG):

FINISH TIME:

CO2%:

O2%:

SO2%:

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	CO2 Co	NOTES
1	221.17	0.091	0.82	1000		29	30	255	64	192	16.77	3.64	1.0
5	223.22	0.091	0.82	994		30	29	255	63	13	16.84	3.6	2.8
10	225.24	0.095	0.84	1026		31	30	255	62	13	15.42	4.7	2.9
15	227.32	0.088	0.79	1012		31	29	255	62	13	16.68	3.77	2.3
20	229.32	0.093	0.82	1031		32	30	255	62	13	16.77	3.85	3.8
25	231.35	0.091	0.81	1022		32	30	255	63	15	16.09	4.16	2.9
30	233.38	0.090	0.80	1012		27	29	255	64	15	16.09	4.13	1.4
35	235.44	0.092	0.81	1019		27	29	255	63	15	16.18	7.04	2.5
40	237.40	0.095	0.86	993		28	27	255	63	17	16.47	3.8	3.3
45	239.48	0.094	0.85	1000		29	27	255	61	20	16.46	3.9	3.3
50	241.51	0.090	0.81	1017		27	28	255	60	21	16.33	4.0	2.7
55	243.58	0.092	0.81	1024		29	28	255	60	22	16.20	4.1	3.4
60	245.60	0.091	0.81	1023		30	28	255	59	23	16.26	4.0	3.4
65	247.61	0.091	0.81	1033		30	28	255	59	24	16.22	4.0	3.9
70	249.62	0.090	0.88	1015		26	29	255	58	25	16.31	3.94	2.5
75	251.49	0.094	0.84	999		28	28	255	56	19	16.38	3.5	1.9
80	253.18	0.075	0.71	997		28	27	255	50	14	16.86	3.5	2.9
85	255.47	0.074	0.70	940		29	28	255	49	42	16.81	3.6	3.0
90	257.35	0.077	0.72	946		29	28	255	50	17	16.8	3.6	2.5
95	259.23	0.078	0.73	952		29	28	255	51	17	16.77	3.6	3.2
100	261.13	0.077	0.71	957		28	28	255	53	20	16.51	3.6	5.1
105	263.02	0.078	0.72	949		28	28	255	55	21	16.19	7.05	3.3
110	264.97	0.082	0.70	944		28	28	255	56	24	16.8	3.5	2.9
115	266.37	0.083	0.68	947		28	28	255	56	25	16.97	3.5	3.4
120	268.55												

ΔH maxed out
stopped at 12:50
5 min
12:55
ΔH maxed out

INITIAL L.C.:

FINAL L.C.:

@

@

"Hg

"Hg

CONSOLE OPERATOR:

AC

2

OF

4

1151

WSP E&I Canada Ltd.

TEST NO.:

Port - ORG-3

JOB NUMBER:

OAGS 2211.1000

STACK DIAMETER:

DATE:

Nov 30, 2012

COMPANY:

Bathfeland

SOURCE:

FLUORIDE

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	Resin	518	559	
IMPINGER 2	100 m Glycol	765	775	
IMPINGER 3	Blank	631	630	
IMPINGER 4	SG	956	994	
IMPINGER 5				
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				
	Filter ID	Filter Tare, g	Filter Final, g	
FILTER	XAN # 313			

NOTES:

wsp

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: 0403 2211 BAR. P. (in Hg): 29.65
 DATE: 10-30
 COMPANY: Begam
 SOURCE: Edwards
 TEST NO.: 020-3
 STARTUP TIME: 8:07 FINISH TIME: 10:07
 STATIC PRESSURE (IN H2O): -0.11
 ASSUMED MOISTURE VOL. %: 6
 NOZZLE DIAMETER (INCHES): 0.375
 PITOT COEFFICIENT: 0.84
 CONTROL BOX (NAME, dH, GAMMA): ES#4
 GAS COMPOSITION: CO2% 4.5 O2% 15 SO2% 0

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	270.32	0.113	0.97	1019		37	32	250	78	13	21	0
5	272.54	0.120	0.99	1096		27	79	250	75	13	14.77	5.3
10	274.77	0.103	0.90	1015		28	29	250	77	12	16.15	4.3
15	276.90	0.105	0.92	1012		30	29	255	68	15	16.37	9.05
20	279.07	0.108	0.93	1049		31	29	256	64	15	16.16	7.2
25	281.23	0.110	0.96	1039		32	30	257	64	16	16.10	4.1
30	283.45	0.120	1.1	1064		29	30	256	63	16	15.31	4.61
35	285.79	0.113	0.96	1061		29	27	255	59	17	16.10	4.1
40	287.95	0.116	0.97	1085		29	29	255	58	17	15.91	4.1
45	290.13	0.11	0.99	1067		30	29	255	58	17	15.38	4.5
50	292.31	0.11	0.90	1129		30	29	257	56	17	15.73	4.3
55	294.47	0.115	0.96	1109		33	30	255	55	18	15.01	4.8
60	296.62	0.119	0.95	1101		34	31	255	55	18	15.70	4.32
65	298.81	0.110	0.91	1137		36	32	255	55	18	15.21	5.6
70	300.94	0.110	0.91	1106		37	33	255	54	18	15.45	4.5
75	303.04	0.106	0.89	1127		38	34	252	53	18	15.86	4.2
80	305.22	0.109	0.91	1130		39	34	254	53	18	15.07	4.8
85	307.36	0.110	0.92	1121		35	35	255	55	17	15.73	4.3
90	309.52	0.105	0.87	1124		35	34	254	53	17	15.43	4.5
95	311.61	0.107	0.90	1092		35	34	254	53	17	15.4	4.7
100	313.74	0.111	0.93	1106		35	33	253	53	18	16.28	3.99
105	315.91	0.111	0.93	1099		36	34	253	54	18	15.35	4.68
110	318.08	0.091	0.82	1018		36	34	246	56	18	16.30	4.01
115	320.12	0.093	0.85	996		36	34	244	55	17	16.44	3.78
120	322.20	0.093	0.85	998		35	34	240	55	17	16.26	4.0

INITIAL L.C.:

0.015

15

CONSOLE OPERATOR:

A2

FINAL L.C.

@

Hg

OF

4

115/1

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: Nov-30-2022 BAR, P. ("HG): _____

DATE: Bottom STATIC PRESSURE (IN H2O): _____

SOURCE: PORT Escrower ASSUMED MOISTURE VOL. %: _____

TEST NO.: 026-3 NOZZLE DIAMETER (INCHES): _____

STARTUP TIME: 10:24 PITOT COEFFICIENT: _____

FINISH TIME: 12:07 CONTROL BOX (NAME, dH, GAMMA): _____

GAS COMPOSITION: _____ CO2% _____ SO2% _____

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
5	224.30	0.095	0.85	1001		35	34	237	56	17	16.2	4.0 2.4
10	226.33	0.09	0.80	1001		35	34	239	56	17	16.5	3.6 0.7
15	228.39	0.094	0.84	1009		36	34	245	56	17	16.17	4.0 1.6
20	230.47	0.09	0.8	1010		37	35	250	56	17	16.3	4.0 1.2
25	232.48	0.09	0.8	1023		38	35	254	55	17	16.2	4.0 1.1
30	234.48	0.09	0.8	1006		39	36	256	56	17	16.3	4.0 1.4
35	236.55	0.093	0.83	1024		40	36	256	55	17	16.2	4.1 1.7
40	238.61	0.091	0.81	1007		40	37	256	55	18	16.3	4.0 1.3
45	240.72	0.091	0.81	1016		40	36	255	55	18	16.3	4.0 2.0
50	242.82	0.087	0.78	1023		41	38	255	55	18	16.2	4.0 1.4
55	244.80	0.089	0.8	1039		41	38	255	55	18	16.1	4.1 1.0
60	246.83	0.086	0.75	1022		42	37	254	55	17	16.3	4.0 1.0
65	248.81	0.082	0.77	1028		42	39	254	55	17	16.3	4.0 1.9
70	250.83	0.090	0.8	1037		42	39	257	55	17	16.3	4.0 1.8
75	252.85	0.086	0.76	1056		42	40	257	55	18	16.2	4.1 0.9
80	254.89	0.084	0.75	1044		42	40	257	55	18	16.2	4.1 0.6
85	256.88	0.084	0.76	1052		39	39	254	56	18	16.3	4.0 0.9
90	258.85	0.087	0.78	1064		39	37	254	55	18	16.1	4.1 1.4
95	260.85	0.085	0.75	1098		39	38	253	55	18	16.07	4.3 0.7
100	262.82	0.086	0.75	1040		39	38	254	55	18	15.9	4.3 1.1
105	264.78	0.086	0.75	1041		39	38	255	55	18	15.91	4.3 1.3
110	266.77	0.085	0.75	1090		39	38	255	55	18	15.8	4.3 1.2
115	268.76	0.080	0.70	1111		42	40	255	55	18	15.42	4.7 1.6
120	270.64											

INITIAL L.C.: _____ @ _____ "Hg CONSOLE OPERATOR: 42 2 OF 4

FINAL L.C.: 0.001 @ _____ "Hg

1151

WSP E&I Canada Ltd.

TEST NO.:

ORG-1

JOB NUMBER:

0AQS2211.1000

STACK DIAMETER:

DATE:

Nov. 25, 2022

COMPANY:

Baftinland

SOURCE:

Ketex

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	XAD	442	620	178
IMPINGER 2	100ml Eth. Gly 50%	765	770	5
IMPINGER 3	Empty	629	633	4
IMPINGER 4	Silica-Gel	930	946	16
IMPINGER 5				203
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				
	Filter ID	Filter Tare, g		Filter Final, g
FILTER				

NOTES:

XAD L2737724-11

wsp

1

WSP E&I Canada Ltd.

TEST NO.:

ORG-2

JOB NUMBER:

0AQS2211.1000

STACK DIAMETER:

DATE:

Nov. 26, 2022

COMPANY:

Bett: inland

SOURCE:

KETEL

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	XAD / 100ml E.G.	532	564	32
IMPINGER 2	100ml E.G.	763	763	0
IMPINGER 3	EMPTY	656	657	1
IMPINGER 4	S.G.	946	953	7
IMPINGER 5				40
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				
	Filter ID	Filter Tare, g		Filter Final, g
FILTER				

NOTES:

wsp

ISOKINETIC SAMPLING, FIELD DATA SHEET

JOB NUMBER: _____ BAR. P. ("HG): _____

DATE: _____

COMPANY: _____

SOURCE: _____

TEST NO.: _____

STARTUP TIME: _____ FINISH TIME: 1538

STATIC PRESSURE (IN H2O): _____

ASSUMED MOISTURE VOL. %: _____

NOZZLE DIAMETER (INCHES): _____

PITOT COEFFICIENT: _____

CONTROL BOX (NAME, dH, GAMMA): _____

GAS COMPOSITION: CO2% _____ O2% _____ SO2%: 40

PT. #	DGM Vol (FT3)	dP (IN H2O)	dH (IN H2O)	STACK (DEG F)	PROBE (deg F)	DGM IN (deg F)	DGM OUT (deg F)	OVEN (deg F)	IMP or XAD (deg F)	VACUUM (IN HG)	OXYGEN (mV)	NOTES
1	883.35	0.068	0.08	1661	210	98	90	240		27	15.4	2.9 7.2
5	884.30	0.063	0.05	1728	230	98	91	250		29	15.3	4.8 5.1
10	884.95	0.065	0.13	1705	230	96	93	250		28	16.95	3.1 5.3
2	885.92	0.077	0.23	1628	230	96	93	250		28	16.56	3.2 5.1
20	887.06	0.067	0.05	1710	230	96	71	250		29	17.6	3.2 5.6
25	887.58	0.081	0.12	1720	230	96	93	250		28	18.56	2.08 7.0
30	888.38	0.059	0.20	1663	230	95	94	250		27	18.74	2.13 5.5
35	889.83	0.064	0.54	1705	230	95	94	250		26	19.17	1.25 5.1
40	891.74	0.063	0.74	1671	230	85	94	250		25	20.35	0.76 8.2
45	893.94	0.062	0.92	1678	230	85	94	250		25	20.12	0.74 5.2
50	895.75	0.070	0.30	1703	230	85	94	250		26	19.8	0.87 4.3
55	896.92											
60												
65												
70												
75												
80												
85												
90												

INITIAL L.C.: _____ @ _____ "Hg

FINAL L.C.: 0.001 @ _____ "Hg

CONSOLE OPERATOR: 42

2 OF 4

WSP E&I Canada Ltd.

TEST NO.:

ORG-3

JOB NUMBER:

DAQS 2211.1000

STACK DIAMETER:

DATE:

Nov 27, 2022

COMPANY:

Baffinland

SOURCE:

Ketox

	Contents	Tare Wt. g	Final Wt. g	Difference, g
IMPINGER 1	XAD Resin	550	671	121
IMPINGER 2	100ml E.G	763	775	12
IMPINGER 3	Blank	631	631	0
IMPINGER 4	S.G	953	982	29
IMPINGER 5				
IMPINGER 6				
IMPINGER 7				
IMPINGER 8				
IMPINGER 9				
Total				162
	Filter ID	Filter Tare, g		Filter Final, g
FILTER				

NOTES:

wsp

JOB NUMBER: OAGS 22-11
DATE: Nov-27, 2022
COMPANY: Baffinland
SOURCE: Keflex
TEST NO.: ORC-3
STARTUP TIME: 11:07 FINISH TIME: 12:37

Prime/Second
485/955

480/953

h16/h6h

[illegible]

INITIAL L.C.:	@	0.015	@
FINAL L.C.:	@		@

57	Hg
	Hg

CONSOLE OPERATOR:

1 OF 4

11

Appendix D

Calibration Sheets

DRY GAS METER CALIBRATION FORM

Reference Meter ID:	26785	Ref Gamma:	0.99300
Meter to be Calibrated ID:	23506104	ES#1 Green	
Barometric Pressure:	29.51	Operator:	RFB
Date:	10-Jul-24		
Room Temperature:	74 °F		

Delta H in H2O	Ref DGM Volume Start, cf	Ref DGM Volume Finish, cf	Ref DGM Temp °F	DGM Volume Start, cf	DGM Volume Finish, cf	Temp In °F	Temp Out °F	Time Seconds	Ref DGM Gamma	min	sec	millisec
0.50	0.5	6.5	75.0	660.71	666.63	73	72	893.79	0.99300	14	53	79
1.0	0.5	4.5	74.0	67.51	71.44	75	74	424.05	0.99300	7	4	5
2.0	0	5	74.0	71.97	76.87	76	75	401.00	0.99300	7	-19	0
4.0	0	4	74.0	98.92	102.85	78	77	220.45	0.99300	3	40	45
6.0	0	6	74.0	103.83	109.67	79	77	272.05	0.99300	5	-28	5
8.0	0.5	5.5	74.0	11.03	15.86	79	77	191.14	0.99300	3	11	14

Ref DGM Temp °R	Ref DGM Volume Total, Rcf	Ave. DGM Temp. °R	DGM Volume Total, Rcf	DGM Gamma	Orifice Coeff.	Delta H @ in H2O	Ko	1/(Ko^2)	CFM approx
535.0	5.799	533	5.797	1.000	0.719	1.789	0.717	1.944	0.403
534.0	3.874	535	3.839	1.009	0.709	1.834	0.709	1.991	0.561
534.0	4.842	536	4.789	1.011	0.660	2.114	0.661	2.289	0.738
534.0	3.874	538	3.846	1.007	0.680	1.994	0.682	2.148	1.073
534.0	5.810	538	5.737	1.013	0.670	2.065	0.672	2.215	1.290
534.0	4.842	538	4.768	1.015	0.685	1.987	0.687	2.121	1.519

Averages	1.009	0.687	1.964	0.688	2.118
-----------------	--------------	--------------	--------------	--------------	--------------

Prepared By: RFB

*Rcf = 68 deg F, 29.92 "Hg

Adjustment nut: In increases volume reading,decreases Gamma: 1/2 turn = 1%

Appendix E

Process Data

Baffinland 2024 Incinerator Loads

Source	Date	Test	# of Pallets	# of Bags	Other	Estimate	
Milne Port	18-Aug-24	1	0	65	0	590.9091	kg
Milne Port	19-Aug-24	2	0	82	0	745.4545	kg
Milne Port	20-Aug-24	3	0	131	0	1190.909	kg
Mary River	22-Aug-24	1	4	121	0	1172.727	kg
Mary River	24-Aug-24	2	4	112	0	1090.909	kg
Mary River	26-Aug-24	3	4	111	0	1081.818	kg

Assumptions:

Pallet	18.2	kg
Bag	9.1	kg

Appendix F

Statement of Limitations

Limitations

1. The work performed in the preparation of this report and the conclusions presented herein are subject to the following:
 - a. The contract between WSP and the Client, including any subsequent written amendment or Change Order duly signed by the parties (hereinafter together referred as the "Contract");
 - b. Any and all time, budgetary, access and/or site disturbance, risk management preferences, constraints or restrictions as described in the contract, in this report, or in any subsequent communication sent by WSP to the Client in connection to the Contract; and
 - c. The limitations stated herein.
2. Standard of care: WSP has prepared this report in a manner consistent with the level of skill and care ordinarily exercised by reputable members of WSP's profession, practicing in the same or similar locality at the time of performance, and subject to the time limits and physical constraints applicable to the scope of work, and terms and conditions for this assignment. No other warranty, guaranty, or representation, expressed or implied, is made or intended in this report, or in any other communication (oral or written) related to this project. The same are specifically disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.
3. Limited locations: The information contained in this report is restricted to the site and structures evaluated by WSP and to the topics specifically discussed in it, and is not applicable to any other aspects, areas or locations.
4. Information utilized: The information, conclusions and estimates contained in this report are based exclusively on: i) information available at the time of preparation, ii) the accuracy and completeness of data supplied by the Client or by third parties as instructed by the Client, and iii) the assumptions, conditions and qualifications/limitations set forth in this report.
5. Accuracy of information: No attempt has been made to verify the accuracy of any information provided by the Client or third parties, except as specifically stated in this report (hereinafter "Supplied Data"). WSP cannot be held responsible for any loss or damage, of either contractual or extra-contractual nature, resulting from conclusions that are based upon WSP's use of the Supplied Data.
6. Report interpretation: This report must be read and interpreted in its entirety, as some sections could be inaccurately interpreted when taken individually or out-of-context. The contents of this report are based upon the conditions known and information provided as of the date of preparation. The text of the final version of this report supersedes any other previous versions produced by WSP.
7. No legal representations: WSP makes no representations whatsoever concerning the legal significance of its findings, or as to other legal matters touched on in this report, including but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.
8. No third-party reliance: This report is for the sole use of the party to whom it is addressed unless expressly stated otherwise in the report or Contract. Any use or reproduction which any third party makes of the report, in whole or in part, or any reliance thereon or decisions made based on any information or conclusions in the report is the sole responsibility of such third party. WSP does not represent or warrant the accuracy, completeness, merchantability, fitness for purpose or usefulness of this document, or any information contained in this document, for use or consideration by any third party. WSP accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on this report or anything set out therein. including without limitation, any indirect, special, incidental, punitive or consequential loss, liability or damage of any kind.