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February 18, 2021

Edouard Hamel
Environmental Services, Imperial
P.O. Box 2480, Station M
Central Building C4A.086
Calgary, AB, T2P 3M9

Dear Mr. Hamel;

Project No: 60569588
**Regarding: Milestone 013: Field Activity Report – Well Decommissioning
Highway No. 3 (Brighton Road), Lockeport, Nova Scotia (PID 80074560)**

1. Introduction

AECOM Canada Limited (AECOM) was retained by Imperial Oil Limited (Imperial) to bring the property at Highway No. 3 (Brighton Road), Lockeport, Nova Scotia (Property Identifier Number – PID 80074560) to closure under full property remediation conditions within the Province of Nova Scotia Environment (NSE) Contaminated Sites Regulations (July, 2013).

This report is intended to provide the final supplementary information associated with the Declaration of Property Condition, Former Imperial Oil Bulk Storage Facility, Highway No. 3 (Brighton Road), Lockeport, Nova Scotia (AECOM, 2020).

2. Groundwater Monitoring Well Decommissioning Summary

The groundwater monitoring well decommissioning activities were conducted by AECOM on February 10, 2021. Groundwater monitoring well decommissioning activities were conducted in accordance to the NSE Contaminated Sites Regulations Protocol 700, Section 4.2 and with the Nova Scotia Environment and Labour Environmental Monitoring Well Decommissioning Fact Sheet (January, 2007).

Wells decommissioned within this program were:

- 51 millimeters (mm) in diameter or less;
- Less than 30 meters (m) deep; and
- Not considered to be multilevel wells.

Groundwater monitoring well MW16-01 was decommissioned during the remedial excavation that took place at the Site (AECOM, 2019). Remaining groundwater monitoring wells (MW1, MW2, MW3, MW4, MW5, MW6, MW16-02, MW19-01, MW19-02) were decommissioned by the following method:

- Collecting static water levels meters below top of casing (mbtoc) and total well depth mbtoc;
- Removing the flush mount well cover and J-plug;
- Pulling the well casing out;
- Cutting the PVC casing to a minimum of 0.3 meters below ground surface (mbgs);
- Filling the remaining PVC casing and screen with 3/8" bentonite chips to a depth of 0.2 mbgs;
- Hydrating the bentonite fill material by adding water to the borehole annulus; and
- Filling the remaining borehole annulus and flush mount hole with washed silica sand.

For all methods presented above, a steel rod was used to force bentonite pellets to the bottom of the wells as the pellets were slowly poured into the remaining monitoring well casings. This was done to reduce the possibility of bentonite bridging within the PVC casing and screen; and/or annulus area.

The attached **Table 1** summarizes the decommissioning activities and field parameters. **Figure 1** (attached) indicates the location of the groundwater monitoring wells that were decommissioned as part of this program. **Monitoring Well Logs** are attached to indicate the construction details of the wells that were decommissioned. The applicable **OIMS work permit** is attached to meet the milestone deliverable requirements.

An attached **photolog** provides photographs of the decommissioned well locations.

AECOM Canada Ltd. is pleased to submit the Well Decommissioning Summary for the above noted site. Should you have any questions, or require additional information, please contact me.

Sincerely,
AECOM Canada Ltd.



Report Prepared By:

Janice Shea, P.Eng.
Environmental Engineer

Report Reviewed By:



John Fairclough, P.Geo.
Site Professional

LIMITATION OF LIABILITY, SCOPE OF REPORT AND THIRD PARTY RELIANCE

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The investigation undertaken by AECOM with respect to this report and any conclusions or recommendations made in this report reflect AECOM's judgment based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site, substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the locations from which samples were taken.

If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

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Table 1: Summary of Well Decommissioning Activities

Monitoring Well ID	Decommission Date	Total Well Depth (mbtoc) (May 28, 2020)	Static Water Level (mbtoc)	Depth of Casing Removed (mbgs)	Depth to Top of Screen (mbgs)	Bentonite Backfill Interval (mbgs)	Silica Sand Backfill Interval (mbgs)
MW1	2/10/2021	5.24	1.98	0.3	1.6	0.2-5.24	0.0-0.2
MW2	2/10/2021	4.82	1.18	0.3	0.8	0.2-4.82	0.0-0.2
MW3	2/10/2021	4.01	1.45	0.3	0.8	0.2-4.01	0.0-0.2
MW4	2/10/2021	4.55	1.28	0.3	0.56	0.2-4.55	0.0-0.2
MW5	2/10/2021	5.35	0.995	0.3	1.19	0.2-5.35	0.0-0.2
MW6	2/10/2021	4.55	1.43	0.3	0.61	0.2-4.55	0.0-0.2
MW16-01*	NA	NA	NA	NA	NA	NA	NA
MW16-02	2/10/2021	3.05	1.635	0.3	0.8	0.2-3.05	0.0-0.2
MW19-01	2/10/2021	4.33	1.2	0.3	0.9	0.2-4.33	0.0-0.2
MW19-02	2/10/2021	4.68	1.85	0.3	0.6	0.2-4.68	0.0-0.2

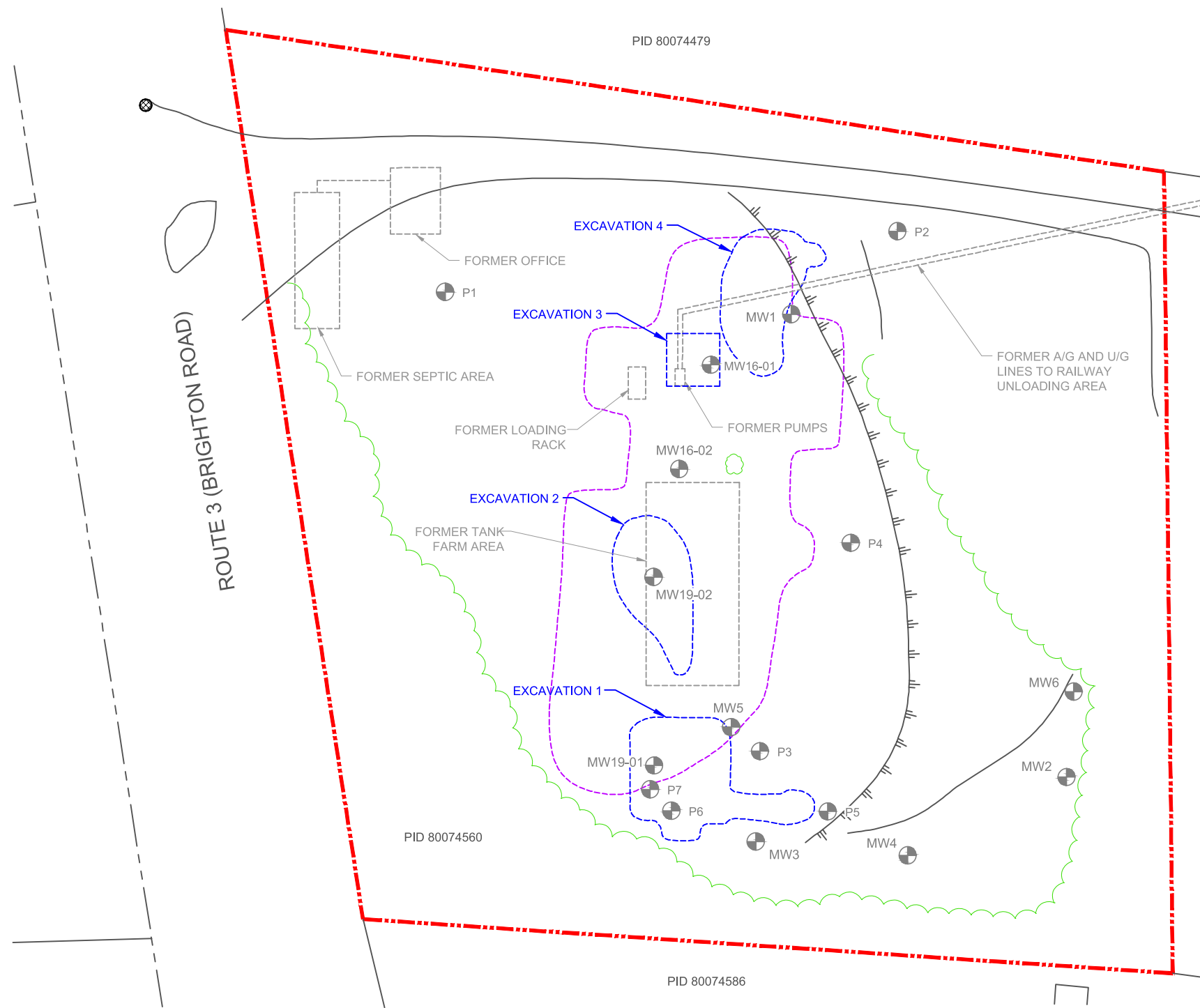
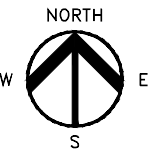
Notes:

mbgs - meters below ground surface

mbtoc - meters below top of casing

NA - measurement not available

* MW16-01 was destroyed during AECOM remedial excavation (2019).



- NOTES:**
1. ORIGINAL DRAWING IN COLOUR.
 2. ALL FEATURES ARE APPROXIMATE



LEGEND

- - - - - SUBJECT SITE LIMITS
- SITE FEATURES
- FORMER FEATURES
- ~ ~ ~ ~ ~ TREELINE
- ⊗ MANHOLE
- FORMER EXCAVATION AREA
- COMPLETED EXCAVATION AREAS (AECOM 2019)
- ⊕ DECOMMISSIONED WELL

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NOTE:
MONITORING WELL MW16-01 WAS DESTROYED DURING THE AECOM REMEDIAL EXCAVATION (2019).

REFERENCE DRAWINGS

NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK



CLIENT NAME: IMPERIAL OIL LIMITED
PROJECT LOCATION: ROUTE 3 (BRIGHTON ROAD) LOCKEPORT, NOVA SCOTIA
PROJECT NO: 60549588

**MILESTONE 013:
LOCKEPORT MONITORING WELL
DECOMMISSIONING - FEBRUARY 2021**

DRAWN BY: RJ SCALE: AS SHOWN FIGURE No. **1**
CHECKED: JS DATE: February 2021 REVISION **0**



Dillon Consulting Limited
Halifax, Nova Scotia

Log of Monitoring Well: MW1

Project No.: 03-1408-0200

Project: Phase II ESA

Client: Imperial Oil Limited

Location: Lockeport, NS

Date: May 8, 2003

Supervisor: Todd Baker

SUBSURFACE PROFILE				SAMPLE							Comments	Well Completion Details	
Depth (m)	Symbol	Description	Elevation (m)	Sample #	Gastech PPM	Method	Recovery (%)	N-Value	SCR	RQD			
0		Ground Surface	100.00										
		<i>Sand and Silt</i> Grass surface, dark brown sand and silt, some gravel, trace clay, moist, loose.		1	20		-	-	-	-			
			99.10	2	40		45	7	-	-			
1		<i>Sand and Silt</i> Yellowish brown to grey brown sand and silt, some gravel, trace clay, compact, moist.		3	40		83	60	-	-			
			98.70	4	-		71	-	64	0			
2				5	-		92	-	69	60			
		<i>Bedrock</i> Quartzite bedrock, medium grey, faintly weathered, moderate fractured, Iron staining and silt infill in fractures. Becoming more competent with depth.		6	-		100	-	85	85			
			95.15										
5													

Ground water elevation 98.5 metres.

Drilling Contractor: Lantech Drilling Services **Top of Casing Elevation:** 100.62 m

Drill Method: Geotech Drill Rig **Stick-up Height:** 0.62 m

Hole Size: 100 mm **Checked by:** GTB

Dillon Consulting Limited
Halifax, Nova Scotia

Log of Monitoring Well: MW2

Project No.: 03-1408-0200


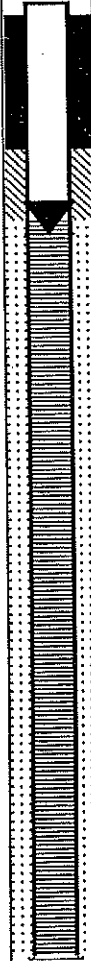





Project: Phase II ESA

Client: Imperial Oil Limited

Location: Lockeport, NS

Date: May 8, 2003

Supervisor: Todd Baker

SUBSURFACE PROFILE				SAMPLE							Comments	Well Completion Details	
Depth (m)	Symbol	Description	Elevation (m)	Sample #	Gastech PPM	Method	Recovery (%)	N-Value	SCR	RQD			
0		Ground Surface	95.60										
0		<i>Sand and Silt</i> Black sand and silt, some gravel, trace clay, with organics, very soft, wet.	95.10	1	10		-	-	-	-		Ground water elevation 95.31 metres.	
1		<i>Sand and Silt</i> Orange brown sand and silt, some gravel, trace clay, becoming yellowish brown at 0.8 metres, scattered cobbles, occasional boulders.		2	5		25	19	-	-			
				3	120		0	44	-	-			
				4	-		-	-	-	-			
2				5	-		-	-	-	-			
3				6	-		-	-	-	-			
4			91.50										
5													

Drilling Contractor: Lantech Drilling Services Top of Casing Elevation: 96.27 m

Drill Method: Geotech Drill Rig Stick-up Height: 0.67 m

Hole Size: 100 mm Checked by: GTB



Dillon Consulting Limited
Halifax, Nova Scotia

Log of Monitoring Well: MW3

Project No.: 03-1408-0200

Project: Phase II ESA

Client: Imperial Oil Limited

Location: Lockeport, NS

Date: May 8, 2003

Supervisor: Todd Baker

SUBSURFACE PROFILE				SAMPLE							Comments	Well Completion Details	
Depth (m)	Symbol	Description	Elevation (m)	Sample #	Gastech PPM	Method	Recovery (%)	N-Value	SCR	RQD			
0		Ground Surface	97.81										
0		Sand and Silt Grass surface, dark brown sand and silt, some gravel, trace clay, organics throughout, moist, very soft.		1			-	-				Ground water elevation 97.13 metres.	
0.5	2					33	2						
1	3				96.56		25	17					
2	4	Sand and Silt Grey brown sand and silt, some gravel, trace clay, wet, compact, scattered cobbles.			-	-							
3	5				94.16		-	-					
4													
5													

Drilling Contractor: Lantech Drilling Services **Top of Casing Elevation:** 98.49 m


Drill Method: Geotech Drill Rig **Stick-up Height:** 0.68 m

Hole Size: 100 mm **Checked by:** GTB

MONITORING WELL LOG

PROJECT: Phase II Environmental Site Assessment	REF. NO.: 087042	BOREHOLE: MW4
LOCATION: Highway No.3 (Brigthon Road) Lockeport, NS	TPC ELEV.: 10.90 m	START DATE: 2014/09/08
CLIENT: Imperial Oil	GRADE ELEV.: 9.98 m	COMPLETION DATE: 2014/09/08
BENCHMARK: Top of Stone Piller (Assumed elevation 15 masl)		PAGE 1 of 1


Depth (m) Water Level	STRATIGRAPHY DESCRIPTION	MATERIAL TYPE	NUMBER	SAMPLE TYPE	"N" VALUE	RECOVERY %	SAMPLE NAME/ LAB ANALYSIS	SOIL VAPOUR CONCENTRATION					SOIL VAPOUR CONCENTRATION					COMMENTS AND MONITORING WELL NOTES	SLOTTED PIEZOMETER	Depth (ft) Water Level
								(ppm)					(%LEL)							
								100	300	500	700	900	10	30	50	70	90			
	Ground Surface																			
0	SAND - some silt, trace gravel, boulders.		1	SS	10	20												Potentiometric Surface on 09/22/2014		
1			2	SS	81	50	MW4 (0.6-1.2 m) BTEX/TPH													
	GRANITE																			
2																				
3																				
	END OF BOREHOLE 3.6 m																			
4																				

 CONESTOGA-ROVERS & ASSOCIATES 45 Akerley Blvd Dartmouth, NS B3B 1J7	LOGGED BY: SJ	DAYLIGHTING TO: na	GAS METER TYPE: RKI Eagle
	REVIEWED BY: SL	EQUIPMENT: CME 55, Rubber Tire	
	DRAFTED BY: AD	METHOD: Hollow Stem Auger	BOREHOLE DIA: 20 cm

MONITORING WELL LOG

PROJECT: Phase II Environmental Site Assessment	REF. NO.: 087042	BOREHOLE: MW5
LOCATION: Highway No.3 (Brigthon Road) Lockeport, NS	TPC ELEV.: 12.77 m	START DATE: 2014/09/09
CLIENT: Imperial Oil	GRADE ELEV.: 12.00 m	COMPLETION DATE: 2014/09/09
BENCHMARK: Top of Stone Piller (Assumed elevation 15 masl)		PAGE 1 of 1


Depth (m) Water Level	STRATIGRAPHY DESCRIPTION	MATERIAL TYPE	NUMBER	SAMPLE TYPE	"N" VALUE	RECOVERY %	SAMPLE NAME/ LAB ANALYSIS	SOIL VAPOUR CONCENTRATION					SOIL VAPOUR CONCENTRATION					COMMENTS AND MONITORING WELL NOTES	SLOTTED PIEZOMETER	Depth (ft) Water Level
								ppm					%LEL							
								100	300	500	700	900	10	30	50	70	90			
0	Ground Surface SILT - fine to medium grain, some sand, trace gravel.		1	SS	6	40														0
			2	SS	4	40														1
1			3	SS	13	10														2
			4	SS	32	20														3
2	SAND - medium grain, some gravel.		5	SS	75	50														4
			6	SS	50	40	MW5 (3.0-3.3 m) BTEX/TPH													5
3			7	RC	-	-														6
4	GRANITE																			7
																				8
																				9
																				10
																				11
																				12
																				13
																				14
	END OF BOREHOLE 4.3 m																			15
																				16
																				17

 CONESTOGA-ROVERS & ASSOCIATES 45 Akerley Blvd Dartmouth, NS B3B 1J7	LOGGED BY: SJ	DAYLIGHTING TO: na	GAS METER TYPE: RKI Eagle	
	REVIEWED BY: SL	EQUIPMENT: CME 55, Rubber Tire		
	DRAFTED BY: AD	METHOD: Hollow Stem Auger		BOREHOLE DIA: 20 cm

MONITORING WELL LOG

PROJECT: Phase II Environmental Site Assessment	REF. NO.: 087042	BOREHOLE: MW6
LOCATION: Highway No. 3 (Brighton Road), Lockeport, NS	TPC ELEV.: 10.26 m	START DATE: 2014/09/08
CLIENT: Imperial Oil	GRADE ELEV.: 9.39 m	COMPLETION DATE: 2014/09/08
BENCHMARK: Top of Stone Pillar (Assumed elevation of 15 masl)		PAGE 1 of 1

Depth (m) Water Level	STRATIGRAPHY DESCRIPTION	MATERIAL TYPE	NUMBER	SAMPLE TYPE	"N" VALUE	RECOVERY %	SAMPLE NAME/ LAB ANALYSIS	SOIL VAPOUR CONCENTRATION					SOIL VAPOUR CONCENTRATION					COMMENTS AND MONITORING WELL NOTES	SLOTTED PIEZOMETER	Depth (ft) Water Level
								(ppm)					(%LEL)							
								100	300	500	700	900	10	30	50	70	90			
0	Ground Surface																			
0	SILT - fine to medium grain, some sand, trace gravel.		1	SS	10	50	MW6 (0.9-1.5 m) BTEX/TPH												0	
1			2	G	-	-													1	
1			3	SS	73	50													2	
2	GRANITE		4	RC	-	-													3	
3																			4	
4																			5	
5																			6	
6																			7	
7																			8	
8																			9	
9																			10	
10																			11	
12	END OF BOREHOLE 3.6 m																		12	
13																			13	
14																			14	
15																			15	
16																			16	
17																			17	

 CONESTOGA-ROVERS & ASSOCIATES 45 Akerley Blvd Dartmouth, NS B3B 1J7	LOGGED BY: SJ	DAYLIGHTING TO: na	GAS METER TYPE: RKI Eagle
	REVIEWED BY: SL	EQUIPMENT: CME 55, Rubber-Tired	
	DRAFTED BY: AD	METHOD: Hollow Stem Auger	BOREHOLE DIA: 20 cm

LOCATION: Main Road, Lockeport, Nova Scotia

CONTRACTOR: Lantech Drilling Services Inc.

EQUIPMENT USED: Auger - Split Spoon - Solid Stem - Truck Mounted CME 55

OVN TYPE: RKI Eagle

BORING DATE: July 13, 2016

RECORD OF MONITORING WELL: MW16-01

DATUM: Local (Elevations are referenced from temporary benchmark (top of a stone pillar located on adjacent PID 80074479) with an assumed elevation of 15 masl (CRA 2015))

DEPTH SCALE METRES	SOIL PROFILE			SAMPLES			Soil Vapour Concentration (ppmv)				ADDITIONAL LAB TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	RECOVERY %	50	100	150	200		
							Soil Vapour Concentration (%LEL)					
							20	40	60	80		
0	Ground Surface		13.56									Stickup = 1.00 m
	SILTY SAND, loose, dry, brown		0.00	1	SS	10					METALS PAH VOC	
1				2	SS	10					PHC	
	-- Boulders at 1.6 m			3	SS	10						
2	SILTSTONE, loose dry, grey		11.76									
	-- Refusal at 2.1 m due to bedrock		1.80	4	SS	20					PHC	
	End of MONITORING WELL.		11.46									
			2.10									
3	Note: Monitoring well was dry on August 31, 2016											
4												
5												
6												
7												
8												
9												
10												

IOL (AUTO) 1544455-1230-2006.GPJ IOL.GDT 9/29/16

DEPTH SCALE

1 : 50



LOGGED: JR

CHECKED:

LOCATION: Main Road, Lockeport, Nova Scotia
 CONTRACTOR: Lantech Drilling Services Inc.
 EQUIPMENT USED: Auger - Split Spoon - Truck Mounted - CME 55
 OVM TYPE: RKI Eagle
 BORING DATE: July 13, 2016
 DATUM: Local (Elevations are referenced from temporary benchmark (top of a stone pillar located on adjacent PID 80074479) with an assumed elevation of 15 masl (CRA 2015))

RECORD OF MONITORING WELL: MW16-02

DEPTH SCALE METRES	SOIL PROFILE			SAMPLES			Soil Vapour Concentration (ppmv) ⊕				ADDITIONAL LAB TESTING	PIEZOMETER OR STANDPIPE INSTALLATION	
	DESCRIPTION	STRATA PLOT	ELEV.	NUMBER	TYPE	RECOVERY %	50	100	150	200			
			DEPTH (m)				Soil Vapour Concentration (%LEL) □						
							20	40	60	80			
0	Ground Surface		13.29									METALS PAH VOC	Stickup = 0.92 m
	SILTY SAND, loose, dry, brown		0.00	1	SS	2	⊕						
1				2	SS	2	⊕						
	SILTSTONE, compact, dry, grey		11.89	3	SS	15	⊕						
			1.40	4	SS	5	⊕						
2	-- Refusal at 2.1 m due to bedrock		11.19	5	AS	n/a	⊕					PHC	
	End of MONITORING WELL.		2.10										
3	Note: Monitoring well was dry on August 31, 2016												
4													
5													
6													
7													
8													
9													
10													

IOL (AUTO) 1544455-1230-2006.GPJ IOL.GDT 9/29/16



PROJECT: Imperial Oil Cost to Closure - Cross Canada	CLIENT: Imperial Oil Ltd.	TESTHOLE NO: MW19-01
LOCATION: Highway No. 3 (Brighton Road), Lockeport, NS		PROJECT NO.: 60549588
CONTRACTOR: Nova Drilling Inc.	METHOD: Standard Auger	ELEVATION (m): N/A
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	⊗ Vapour Reading ⊗ (ppm)			COMMENTS	DEPTH (m)
					10	100	1000		
0		SAND - Brown sand with cobble and boulders						Drilled through former excavation. No soil samples collected.	0
1									1
2									2
3		Bedrock at approximately 3.0 mbgs							3
4									4
5		End of borehole at 4.57 mbgs							5

ENVIRONMENTAL (VAPOUR ONLY) 2019-06-05-LOCKEPORT BH LOGS-60549588-NL.GPJ UMA.GDT 6/6/19



LOGGED BY: Alex Duguay	COMPLETION DEPTH: 4.57 m
REVIEWED BY: Janice Shea	COMPLETION DATE: 5/1/19
PROJECT ENGINEER: Alex Duguay	Page 1 of 1

PROJECT: Imperial Oil Cost to Closure - Cross Canada	CLIENT: Imperial Oil Ltd.	TESTHOLE NO: MW19-02
LOCATION: Highway No. 3 (Brighton Road), Lockeport, NS		PROJECT NO.: 60549588
CONTRACTOR: Nova Drilling Inc.	METHOD: Standard Auger	ELEVATION (m): N/A
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	⊗ Vapour Reading ⊗ (ppm)			COMMENTS	DEPTH (m)
					10	100	1000		
0		SAND - Brown sand with cobble and boulders						No soil samples collected. Augered through backfill material.	0
1									1
2									2
3		Bedrock at approximately 3.0 mbgs							3
4									4
5		End of borehole at 4.27 m bgs							5

ENVIRONMENTAL (VAPOUR ONLY) 2019-06-05-LOCKEPORT BH LOGS-60549588-NL.GPJ UMA.GDT 6/6/19



LOGGED BY: Alex Duguay	COMPLETION DEPTH: 4.27 m
REVIEWED BY: Janice Shea	COMPLETION DATE: 4/30/19
PROJECT ENGINEER: Alex Duguay	Page 1 of 1

PERMIT TYPE(S): General Work Work at Height Crane and Lifting LO/TO

PERMIT NUMBER: **61W**
2021-02-10-
LP-001

Complete the applicable permit for each permit type selected above

WORK PERMIT DURATION IS ONE WORK DAY/SHIFT (DATE PERMIT ISSUED) EXCEPT FOR Multiple Day Revalidation for General Work

SITE NAME: **Lockport** LOCATION OF WORK: **Lockport**

DESCRIPTION OF WORK COVERED BY THIS PERMIT: **WELL Decommission**

LIST ISA'S: **HAND TOOLS, FARM SACK, HEAD TOOLS, FARM TALK**

POTENTIAL HAZARDS IDENTIFIED: **TRIPS, SLIPS, FALLS, COLD, ERGON.**

SPECIAL PRECAUTIONS REQUIRED FOR WORK LOCATION (include consideration of dangerous substances / chemicals / gases): **WORN GEAR**

ISSUE DATE: **Feb 10/21** EXP DATE: **Feb 10/21**

ISSUE TIME: **8:30** AM PM EXP TIME: **1:00** AM PM

ARE ANY WORK CREW PERSONNEL SHORT SERVICE WORKERS? NO YES (PLEASE LIST SSW AND ASSIGNED MENTOR BELOW)

SSW: **DAVID BUNDE** MENTOR: **JUSTIN GLOVE**

TOTAL NUMBER OF WORKERS ON SITE: **2**

A. PRE-WORK CHECKLIST (INSPECTION OF THE JOBSITE REQUIRED)		YES	NA	(RECIPIENT AND ISSUER TO INITIAL YES / NA BOXES)	YES	NA
1. List any specialized PPE, warning devices, barricades, temporary lighting, etc.; confirm this equipment listed below and available for use?	Recipient	<input checked="" type="checkbox"/>		4. Is Standby Equipment required and available (e.g. Fire Extinguisher, Radio, Rescue Harness, etc.)? List equipment or refer to relevant additional permit forms:	Recipient	<input checked="" type="checkbox"/>
	Issuer	<input checked="" type="checkbox"/>			Issuer	<input checked="" type="checkbox"/>
2. Has the impact of this task on neighboring equipment, services, Third Parties and/or members of the Public been considered and addressed?	Recipient	<input checked="" type="checkbox"/>		5. Standby personnel (spotter hazard watch fire watch) required? Confirm they are briefed/trained in their standby duties	Recipient	<input checked="" type="checkbox"/>
	Issuer	<input checked="" type="checkbox"/>			Issuer	<input checked="" type="checkbox"/>
3. Have procedures for working with Hazardous Materials been reviewed and are understood by workers (e.g. Chemical approval/SDS, Asbestos controls, etc.)?	Recipient	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6. Has the job site been inspected to confirm that site conditions are adequate for the work to be undertaken?	Recipient	<input checked="" type="checkbox"/>
	Issuer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Issuer	<input checked="" type="checkbox"/>

B. POTENTIAL FOR RESPIRATORY HAZARD, HAZARDOUS ATMOSPHERE, OR HAZARDOUS SUBSTANCES PRESENT?

NO GAS TESTING NOT REQUIRED (GO TO SECTION C) YES GAS TESTING REQ. (COMPLETE SECTION B)

DOES WORK HAVE IGNITION SOURCE AND A FLAMMABLE/HAZARDOUS ATMOSPHERE MAY EXIST? NO YES (Continuous monitoring required)

Gas test Equipment calibration date: / / CONTINUOUS MONITORING; Recording Interval: HRS

Initial Gas Test time: AM PM PERIODIC MONITORING; Testing Interval: HRS or when

Chemical	NO RESPIRATOR REQUIRED	SCBA Required	STOP WORK CONDITIONS (Approval Required)	Result	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result	Time	Testers Initials
Oxygen	> 19.5% to < 23.5%		< 19.5% OR > 23.5%													
LEL (hot work)	See Total Hydrocarbons		> 5% LEL													
Benzene	< 0.5 ppm	>50 ppm	≥ 500 ppm													
Hydrogen Sulfide	≤ 5 ppm	>5 ppm	≥ 100 ppm													
Total Hydrocarbons	< 100 ppm		≥ 1,000 ppm													
Other																
Other																
Other																

GAS TESTERS NAME: GAS TESTERS COMPANY: GAS TESTERS SIGNATURE:

C. IS SUBSURFACE WORK REQUIRED? NO (GO TO SECTION D) YES (COMPLETE SECTION C) ONE CALL INFORMATION:

SUBSURFACE CLEARANCE CHECKLIST HAS BEEN COMPLETED AND REVIEWED WITH SITE WORKERS ABOVE AND BELOW STRUCTURES, EXCAVATIONS, AND TRENCHES ARE PROTECTED AND SUPPORTED YES NO

SUBSURFACE WORKERS ARE AWARE OF SUBSURFACE STRUCTURES AND MARKOUT LOCATIONS ARE VISIBLE YES NO N/A

SUBSURFACE CLEARANCE ACTIVITIES COMPLETED BEFORE DRILLING OR EXCAVATION BEGINS? YES NO N/A

D. SITE SET UP (IF THESE ARE NOT COMPLETED, WORK MAY NOT BEGIN)

OVERHEAD UTILITY LINES AND MINIMUM CLEARANCE REQUIREMENTS REVIEWED WITH SITE WORKERS? YES NO N/A

APPROPRIATE WARNING SIGNS AND BARRICADES HAVE BEEN INSTALLED TO PROTECT SITE WORKERS AND ESTABLISH WORK ZONE YES NO N/A

TRAFFIC PLAN IMPLEMENTED YES NO N/A

E. SIGNATURES

I HAVE REVIEWED THIS CHECKLIST AND ALL OTHER WORK ARRANGEMENTS WITH ALL OTHER WORKERS INVOLVED IN THIS WORK

PERMIT ISSUER NAME AND COMPANY: **Sister Outdoor Recon** PERMIT RECIPIENT NAME AND COMPANY: **Dave Budy**

PERMIT ISSUER SIGNATURE: **[Signature]** CONTACT PHONE NUMBER: **902 943 4325** PERMIT RECIPIENT SIGNATURE: **[Signature]** CONTACT PHONE NUMBER: **477 6914**

RELIEF PERMIT ISSUER NAME AND COMPANY: RELIEF PERMIT RECIPIENT NAME AND COMPANY:

RELIEF PERMIT ISSUER SIGNATURE: RELIEF PERMIT RECIPIENT SIGNATURE:

F. COMPLIANCE INSPECTION

Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:
Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:
Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:
Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:
Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:
Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:
Date:	Time Performed: <input type="checkbox"/> AM <input type="checkbox"/> PM	Performed by:	Comments:

G. EXTENSION

(ALLOWED FOR GENERAL WORK PERMITS IN ONE DAY INCREMENTS UP TO 7 TOTAL DAYS IF SITE PERSONNEL AND CONDITIONS HAVE NOT CHANGED)
COMPLETE INITIAL SITE INSPECTION. IF SITE CONDITIONS OR PERSONNEL HAVE CHANGED, NEW PERMIT REQUIRED

Date	Issue Time	Expiry Time	Permit Recipient Signature	Permit Issuer Signature	Confirm day's work complete	Time	Comments	Permit Issuer (Initial)
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		
	<input type="checkbox"/> AM <input type="checkbox"/> PM				<input type="checkbox"/> Yes	<input type="checkbox"/> AM <input type="checkbox"/> PM		

H. POSTWORK / JOB STATUS

WORK SITE INSPECTED

PERMIT ISSUER TO SIGN OFF AT END OF WORK/ SHIFT

EXCAVATION PROTECTED?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA	COMMENTS:
EQUIPMENT REINSTATED?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA	COMMENTS:
LO/TO REINSTATED?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA	COMMENTS:
AREA/EQUIPMENT SECURED AND CLEANED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS:
PERMIT RECIPIENT SIGNATURE:	<i>David Snyder</i>	Date: Feb 10/2021 Time: 12:00 PM
PERMIT ISSUER / DESIGNATED STAND-IN SIGNATURE:	<i>[Signature]</i>	Date: Feb 10/21 Time: 12 PM

PLEASE USE THE SPACE BELOW TO CAPTURE INFORMATION THAT MAY NOT HAVE BEEN ABLE TO BE CAPTURED IN THE ABOVE, SUCH AS ADDITIONAL SSW'S, ADDITIONAL GAS TESTING RESULTS, ETC.

PROMINENTLY DISPLAY PERMIT AT JOB SITE

Photo No. 1	Date (mm/dd/yyyy): 02/10/2021
Description: Monitoring well MW1 prior to decommissioning.	



Photo No. 2	Date (mm/dd/yyyy): 02/10/2021
Description: Monitoring well MW1 post decommissioning.	



Photo No. 3	Date (mm/dd/yyyy): 02/10/2021
Description: Monitoring well MW19-02 prior to decommissioning	



Photo No. 4	Date (mm/dd/yyyy): 02/10/2021
Description: Monitoring well MW19-02 post decommissioning.	

